
EMERGING TRENDS IN EVIDENCE-BASED QUALITY ASSURANCE

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ABSTRACT

Higher education has expanded and diversified rapidly over the last twenty years, underpinning a need for more robust information on the nature and quality of provision. This paper introduces three evidence-based collections being developed for Australian higher education. Each of these measures triangulates current collections and provides new data and insights to institutions that is central to the quality of their educational provision.

INTRODUCTION

Higher education has expanded and diversified rapidly over the last twenty years, bringing a need for more robust information on the nature and quality of provision. Government, business, potential students, the general public and institutions themselves want more and better information to help differentiate varying levels of quality and effectiveness. As our understanding of educational quality and measurement and evaluation methodology unfolds, it is critical that we develop more effective approaches for managing and improving the quality of higher education. In recent years, high-level reports (AUQA, 2007; Spellings, 2006; OECD, 2008) have noted the need for such development.

This paper introduces three new evidence-based quality assurance activities that are being developed for Australian higher education: the Australasian Survey of Student Engagement (AUSSE), an aptitude test (uniTEST) and a Work Readiness Assessment Package (WRAP). Each of these triangulates current collections and provides new data and insights that is central to the quality of educational provision. The collections are described in terms of large-scale national developments underway in 2008. Concluding remarks focus on the likelihood that these emerging trends may underpin change in quality assurance activities and hence in educational policy and practice.

These collections, and the integrated methodology, offer 'evidence-based' approaches to quality assurance, a position that needs brief qualification. In brief, it implies forms of professional practice based on data collected using scientific methods. When carefully designed and collected, such data provides a robust foundation for professional diagnosis, decision-making and action. This implies a certain way of thinking, and implies various things in practice. It can denote senior executives making decisions based on data about the quality of provision. It can involve academic staff using

locally collected data to analyse the performance of their students and to help them target their teaching and support.

Of course the merit of evidence-based practice hinges on the relevance and validity of the data on which decisions are made. This can be more problematic in education than in other professions, as teaching and learning can be difficult to define, measure, analyse and report, particularly in ways that are generalisable across fields of study, let alone across institutions, states or nations. A considerable amount of work has been done to develop the collections described in this paper as valid, authoritative, relevant, efficient and timely measures that hold weight across diverse institutions and contexts.

A distinguishing feature of each of these approaches is that they provide direct or very sound proxy measures of student learning outcomes. This is important, as it moves our focus beyond institutional and instructional factors and emphasises what students themselves are doing and achieving. Institutional and pedagogical factors are important, but it's equally or arguably more important that we do not neglect analysis of what students are doing and achieving. So far, quality assurance in Australia has involved a considerable amount of data collection *from* students, but little collection of data *about* students and their learning.

The Australasian survey of student engagement (AUSSE)

'Student engagement', defined as students' involvement with activities and conditions likely to generate high-quality learning (Coates, 2006), is increasingly understood to be important for higher education quality. The concept provides a practical lens for assessing and responding to the significant dynamics, constraints and opportunities facing higher education institutions. It provides key insights into what students are actually doing, a structure for framing conversations about quality, and a

stimulus for guiding new thinking about best practice.

Student engagement is an idea specifically focused on learners and their interactions with university. The idea touches on aspects of teaching, the broader student experience, learners' lives beyond university, and institutional support. The concept of student engagement is based on the premise that learning is influenced by how an individual participates in educationally purposeful activities. While students are seen to be responsible for constructing their knowledge, learning is also seen to depend on institutions and staff generating conditions that stimulate and encourage involvement. Learners are central to the idea of student engagement, which focuses squarely on enhancing individual learning and development.

Surprisingly, information on student engagement has not been readily available to Australasian higher education institutions. The Australasian Survey of Student Engagement (AUSSE) (ACER, 2008), conducted with 25 institutions for the first time in 2007, provides data that Australian and New Zealand higher education institutions can use to attract, engage and retain students. The AUSSE builds on foundations laid by the North American National Survey of Student Engagement (NSSE, 2008). By providing information that is generalisable and sensitive to institutional diversity, and with multiple points of reference, the AUSSE plays an important role in helping institutions monitor and enhance the quality of education.

The AUSSE collects data from institutionally representative samples of first- and later-year students, and provides a foundation for analysing change over time. While not assessments of value added in the statistical sense, examining change across year levels provides insight into the extent to which people are being challenged and pushing themselves to learn. An increase in active learning, for instance, indicates that learners are investing more time constructing new knowledge and understanding. It also indicates that learners are more engaged in their work.

In 2008, ACER is piloting the Staff Student Engagement Survey (SSES) as a complement to the student collection. The SSES is a survey of academic staff about students, building on the foundations set by the Faculty Survey of Student Engagement (FSSE) (Nelson Laird, 2008). The Staff Student Engagement Questionnaire (SSEQ) measures academics' expectations for student

engagement in educational practices that have been linked empirically with high quality learning and development.

Compared with student feedback, relatively little information from academic staff is collected in Australasian higher education. Such information is important, however, as it can help identify relationships and gaps between student engagement and staff expectations, engage staff in discussions about student engagement and in student feedback processes, provide information on staff awareness and perceptions of student learning, and enable benchmarking of staff responses across institutions.

In summary, the AUSSE provides information about individuals' intrinsic involvement with their learning, and the extent to which they are making use of available educational opportunities. As such, it offers information on learning processes, is a reliable proxy for learning outcomes, and provides excellent diagnostic measures for learning enhancement activities. Particularly when linked with feedback from staff, this can be a powerful means for driving educational change.

An aptitude assessment for university entry: UniTEST

In 2008, the Australian Government Department of Education, Employment and Workplace Relations (DEEWR) introduced a pilot program of the Student Aptitude Test for Tertiary Admission (SATTA) (DEEWR, 2008). This program includes funding for an evaluation of the criterion validity of uniTEST, an assessment managed by the Australian Council for Educational Research (ACER). The evaluation will examine the extent to which uniTEST correlates both with alternative concurrent measures used for university entrance and with performance in the first year of study. This latter evaluation involves analysis of the predictive validity of the instrument.

uniTEST (ACER & Cambridge Assessment, 2008) has been developed to assist universities with the often difficult and time consuming processes of student selection. The test is designed for use with school leavers to complement the existing achievement-oriented measures that form the basis of many selection decisions. uniTEST assesses the kinds of generic reasoning and thinking skills that underpin successful higher education study. It provides measurement of quantitative and formal reasoning, critical reasoning, and verbal and plausible reasoning. Reasoning is assessed in familiar and less familiar contexts and does not

require subject-specific knowledge. The instrument is designed to estimate individual capability with known and appropriate levels of precision.

While not the primary purpose of the instrument, or of the 2008 validation, objective measures of individual aptitude provide a basis for estimating subsequent performance. Hence, they provide an inferential basis for estimating the value added by university study.

In addition to a robust baseline measure, it is necessary to have measures of actual student achievement that are gathered after a period of university study. These are collected through routine assessment activities. Such assessments vary greatly both within and across institutions, even within similar fields of education. While there are pockets of excellence, knowledge and skill is often measured using uncalibrated tasks with unknown reliability and validity, scored normatively by different raters using unstandardised rubrics then, often with little moderation, adjusted to fit percentile distributions which are often specified a priori by departments, faculties or institutions. Confidence in the reliability of such assessments might be enhanced through the inclusion of common items across examinations that measure specific knowledge and skill or even generic capabilities.

Such limitations aside, with these data the value added by a course of study can be assessed statistically by comparing predicted with actual measures of individual performance. Performance above expectation suggests value-added growth. Performance below expectation indicates that less value has been added than expected. As noted, a comparison of the simple difference between entrance scores and routine assessment results would also illuminate patterns of learning across an institution.

In addition to any assessment of value added, baseline data on individual ability might also be used by an institution to monitor and even moderate grade distributions across an institution. Such work is undertaken routinely in three senior secondary systems in Australia (VCAA, 2008; QSA, 2008; ABSSS, 2008). In such analysis, individual performance that is above expectation is taken to indicate larger gains that have been made through university education. When performance is above expectation for a whole group, however, this may indicate grade inflation or that assessment tasks are too easy. If so, adjustments may then be made for risk management purposes so as to

assure the quality of data used for quality assurance decisions.

The Work Readiness Assessment Package (WRAP)

The quality of university education may be reviewed by comparing objective assessments of first-year and later-year students' performance and potential. In the simplest scenario, this analysis might be conducted using routine student assessment data. A first year grade point average, for instance, might be compared against a third year grade point average. This approach is attractive as it involves the use of extant student assessment data. The limitations of the approach, however, stem from uncertainties associated with the psychometric properties of routine assessment data, and that the assessments have been assured by the educational processes that they are being called upon to evaluate. The process is not grounded by an objective assessment of student competence or capability.

A preferable approach, therefore, involves making comparisons between two psychometrically validated and linked assessments. Data from objective psychometric assessments provides points of reference from which value added estimates can be derived. This requires assessment of first- and later-year students, either of the same students as they progress through a course of study, or of a later-year matched cohort of students. The assessments might focus on specific knowledge or skills or on competencies and capabilities which are more generic in nature.

The latter approach has been more common, perhaps surprisingly given the large amount of assessment data available to institutions. This methodology was seeded during development of the Graduate Skills Assessment (ACER, 2001) which measures written communication, critical thinking, problem solving and interpersonal understandings. The Collegiate Learning Assessment (CAE, 2008) has been used in this context in the USA, again to measure generic capabilities which are core components of a university education.

The measurement of generic competencies is important, but there is value too in focusing on phenomena that align with an institution's specific mission. In 2008, for instance, one Australian university is piloting a Work Readiness Assessment Package (WRAP) which has been designed to measure students' work-, career- and future-readiness (Coates, Edwards & Nesteroff, forthcoming). This involves the assessment of a spectrum of constructs, from

basic competencies such as numeracy and literacy, to job searching, workplace reasoning and career management, through to how students' position themselves professionally in the changing world of work.

As with the previous approach, statistical comparison against data collected at two points in time can be used to derive estimates of individual growth against expectation, or the value added by university study. In addition to use in quality assurance determinations, results from such assessment can be reported on the transcripts that are provided to students on graduation, benchmarked by level of qualification and field of education. They also provide a foundation for drawing inferences about the quality of students' achievement. As with the previous approach, they furnish independent evidence that can be used to assure the quality of routine student assessment.

Forecasting change

The approaches advanced in this paper emphasise new thinking about quality assurance in Australian higher education, if only through their explicit focus on student learning and development. The application of these approaches in Australian universities is important, for it flags innovative ways for institutions to measure and verify what their students have learned. All approaches provide institutions with empirical foundations for drawing inferences about the quality of higher education. They provide concrete data that moves beyond prevailing metrics which focus on graduation rates and subjective student satisfaction with provision.

While relatively early days, the importance of these new developments hinges on the extent to which they shape institutional policy and, more importantly, educational practice. Universities and higher education systems evolve slowly but several trends would appear to be driving more rapid changes in this area.

The first is an increasing emphasis on evidence-based and outcomes-focused approaches in formal quality assurance activities. Spellings (2006), the OECD (2008) and Callan, Ewell, Finney and Jones (2007) highlight such trends internationally. The direction is emphasised in Australian tertiary education by policy papers released by the Australian Universities Quality Agency (AUQA) (2007) and, in terms of vocational education, by the National Quality Council (NQC) (2007). Of course, this trend follows developments in school education over the last few decades, which have culminated in

collections such as PISA (OECD, 2008) and TIMSS (2008).

In many respects, this first driver reflects more a general overarching need for objective evidence on the quality of institutional provision and on student outcomes. Aside from administrative data on student enrolment and completions, the quantitative data used in quality assurance determinations is overwhelmingly derived from students' perceptions of the quality of teaching. While important, such information provides only a subjective proxy measure of the quality of students learning. Objective assessments, even if of more 'generic' rather than discipline-specific phenomena, provide much more direct and robust information and, further, can be used to moderate or monitor routine assessments.

A further driver is the need for greater diversification in the data that is collected by institutions for quality assurance purposes. Australian institutions have developed very sophisticated means of capturing feedback on student satisfaction over the last few decades. This information has driven important changes in practice, but subjective information on student satisfaction provides just one perspective on education. With a more complex and integrated role in contemporary society, and more differentiation between individual institutions, comes a need for more diversified, robust and educationally significant information. Institutions need data that helps shape understanding of the student and industry markets in which they operate.

Evidence-based quality assurance requires data that can be used to target enhancement and improvement activities. Such evidence-based approaches are required as institutions grow and diversify, and as it becomes less feasible and even effective to support all areas of provision. A data-driven approach helps identify areas of risk, target limited resources, focus improvement activities, and monitor change. It offers insight for identifying areas of good practice. The perspective driving this paper is that such practice will doubtless grow in an expanding and increasingly competitive higher education environment.

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TELLING TALES: METANARRATIVES, COUNTERNARRATIVES AND OTHER STORIES IN LIFELONG LEARNING SUCCESSES AND FUTURES

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ABSTRACT

Lifelong learning attracts various stories to tell the tales of its successes and futures. These stories include marginalising metanarratives, resistant counternarratives and other accounts. This paper illustrates these stories by referring to information literacy, critical theory and informal learning as gleaned from the refereed proceedings of the first four conferences.

KEYWORDS

counternarratives – critical theory – informal learning – information literacy – metanarratives

INTRODUCTION

Telling tales is an evocative and powerful device for examining claims about reflecting on lifelong learning's successes (and failures) and for framing its possible futures. Depending on the skills of the teller and the receptiveness of the audience(s), tales can be allegorical, lyrical and/or satirical, and they can convey the multiple perspectives on and interests attending particular conceptualisations of lifelong learning.

Rather than engaging here with possible definitions of lifelong learning, I have selected three among several themes commonly associated with this phenomenon: information literacy, critical theory and informal learning. While other topics could have been chosen, these three feature prominently in the refereed proceedings of the first four international lifelong learning conferences that I take as my principal text for this paper, and they encompass a considerable diversity of ideas about and approaches to understanding what lifelong learning is and might be and whom it might benefit and/or disadvantage.

Before I examine these three themes, I present a conceptual framework synthesised from poststructuralist notions of marginalising metanarratives and resistant counternarratives and other forms of story telling. The paper's argument is that lifelong learning tales present some viewpoints but not others and that they constitute necessarily limited and partial representations of educational aspirations and experiences in the broadest sense. Moreover they provide opportunities for lifelong learners, educators, policy-makers and researchers to continue to strive for new and more enabling and transformative practices and theories. It is in the telling of those tales, viewpoints, representations and opportunities that lifelong learners,

educators, policy-makers and researchers alike reflect on their successes and frame their hoped for futures.

CONCEPTUAL FRAMEWORK

Like many ideas derived from poststructuralism, metanarratives and counternarratives are liable to denote varied ideas across a range of writers and are at risk of setting up a conceptual binary of fixed essences of the kind that poststructuralists seek to avoid. While I wish to highlight the boundary between the two kinds of narratives as porous, clearly they evoke different types of stories about lifelong learning, with divergent purposes and serving dissimilar interests. Hopefully the potential for oversimplifying conceptual complexity is offset by the analytical benefit of identifying those purposes and interests and considering their possible impact on lifelong learning successes and futures.

Metanarratives recall the French postmodernist Jean-François Lyotard's (1979) scepticism towards grand narratives, understood as conveying some form of universal and transcendent truth that overcomes the diverse particularities of specific contexts and situations. For Stephens and McCallum (1998), "conservative metanarratives" are "the implicit and usually invisible ideologies, systems, and assumptions which operate globally in a society to order knowledge and experience" (p. 3). While metanarratives can serve a useful purpose (for example, in relation to bringing to greater civic and government attention some issues of public education and health), their principal disadvantage is the tendency to homogenise, essentialise and totalise our understandings of the world and thereby to elide crucial differences of experience and interest. Their effect is therefore likely to be marginalising and deleterious for minority groups and communities.

Postmodernism and poststructuralism are also of course potential metanarratives (Harvey, 1990; see also Lingard & Gale, 2007). My point here is not to assert that particular commentators –

myself included – are incapable of deploying metanarratives or their constituent elements but instead to highlight the conceptual utility of considering the concept when reflecting on lifelong learning's successes and seeking to frame its futures. Similarly it is important to recognise the political situatedness of those who evoke counternarratives, sometimes for advantage in personal positioning that might have little to do with the form of marginalisation being contested and/or simply reverse its polarity (as again this paper might be accused of doing).

By contrast with metanarratives, counternarratives are conceived as resistant alternative stories that tell the tales that metanarratives strive to silence. Peters and Lankshear (1996) distinguished helpfully between two types of post modern counternarratives, both of which are relevant to this discussion:

The first observes the existence of counternarratives which function generically as a critique of the modernist predilection for “grand,” “master,” and “meta” narratives....Counternarratives in this sense serve the strategic political function of splintering and disturbing grand stories which gain their legitimacy from foundational myths concerning the origins and development of an unbroken history of the West based on the evolutionary idea of progress.

....Counternarratives, then, in a second sense counter not merely (or even necessarily) the grand narratives, but also (or instead) the “official” and “hegemonic” narratives of everyday life: those legitimating stories propagated for specific political purposes to manipulate public consciousness by heralding a national set of common cultural ideals. (p. 2; emphasis in original)

Of course there are many other kinds of tales able to be told about lifelong learning apart from metanarratives and counternarratives. There are the culturally situated stories told by Indigenous community members (and the equally culturally situated texts by researchers interpreting those stories) (Atleo, 2008). There are the multiple forms of data collection constituting doctoral research, a recent example of which included “the research questions, dreams, memory work and collective biography workshops with my participants” (de Carteret, 2008, p. 235). There are the interwoven processes that link oral tellers of (sometimes sacred) stories with their listeners (Josephs, 2008). There are the tales told variously through dance (Toncy, 2008), painting

(Reader, 2008) and writing (Mantle, 2008). There are the items of gossip and ‘in jokes’ that bind – and sometimes divide – families, community clubs and workplaces. Many of these ‘other’ tales might be seen as falling within Foucault’s (1980) identification of types of subjugated knowledge (including ‘local’ or ‘indigenous’ forms of knowing); all of them belong to the innumerable utterances constituting Bakhtin’s (1984) notion of unfinalisability, whereby the final word is never spoken and individuals and groups retain the potential for change and transformation.

What has this conceptualisation of various approaches to telling tales to do with lifelong learning research and scholarship? At the most general level telling tales encapsulate what it is to be human, alive and engaged in learning (thereby aligning with the definitional conundrum that it is perhaps as difficult to say what lifelong learning is not as to say what it is). More specifically, telling tales encompasses the formal, non-formal and informal dimensions of lifelong learning, being equally at home in accredited programs of instruction, training courses and the private endeavours of self-improvement. Similarly telling tales involves both the lifelong and the lifewide trajectories of learning (or respectively the vertical and horizontal axes of lifelong learning [Danaher, Moriarty & Danaher, 2002]). Telling tales also evokes such varied elements of lifelong learning as the intellectual, the spiritual, the emotional and the ethical (Jarvis, 2000). Finally, as an example of some of these types of tales, the authors of a recent review of lifelong learning research literature (Edwards, Clarke, Harrison & Reeve, 2002) deployed the illuminating set of “three narratives of the project: algorithmic, strategically improvised, and reflexive” (p. 129) to describe their empirical study of flexibility and lifelong learning in further education in the United Kingdom.

Thus the telling of tales lies at the centre and the heart of lifelong learning research and scholarship. Some of those tales are inevitably metanarratives, seeking to ensure collectivity, compliance, conformity and consensus in relation to the *status quo* and currently privileged learning interests and perspectives. Others are deliberately provocative, resistant and subversive, concerned with decentring that privilege and power and creating other strategies and structures for learning. Others still are accidental, ephemeral, incidental and temporary – yet also capable of mobilising effective and sustainable change and transformation. My interest in the remaining sections of the paper lies

in exploring a few of the apparent and possible convergences and divergences among the narratives clustered around the three previously identified themes in lifelong learning research: information literacy, critical theory and informal learning. As noted above, these narratives are necessarily restricted (and potentially restrictive) in their representations of lifelong learning objectives and opportunities, but they also contain possible new and more hopeful ways of conceptualising and enacting those objectives and opportunities. These narratives are also crucial to understanding and interrogating multiple reflections on successes and framing futures in relation to lifelong learning.

Information Literacy

Information literacy can be considered both a pre-requisite and a litmus test of the success of lifelong learning, as well as a key to framing its future. The multiple attributes of what makes an individual learner information literate are vital to that person's capacity to locate, organise, analyse, critique, apply and reconstitute the material from which knowledge derives. Information literacy signifies a confident, engaged and productive member of several intersecting communities, as well as trajectories of learning and involvement that are both lifelong and lifewide.

This notion of the intersection between information literacy and lifelong learning has been a recurring theme in previous conference refereed proceedings. In 2000 Breivik (2000) identified "the magical partnership" between information literacy and lifelong learning, contended that "lifelong learning is the goal for which information literacy is an essential enabler" and argued that "Academic institutions...will have failed their graduates if they do not empower them to be **independent** lifelong learners who can access, evaluate, and effectively use information to address the needs or questions which confront them" (p. 1; **emphasis in original**). In 2002 Hallam and Partridge (2002) linked the two terms by referring to "Information literacy and lifelong learning: the capacity to learn and maintain intellectual curiosity and a commitment to continuous learning throughout life" (p. 198). In 2004 Grace (2004) cited "the importance of information literacy as an enabler of lifelong learning" and contended that "information literacy plays an important role in holistic lifelong learning" (p. 133). In 2006 Lloyd (2006) noted that "The issue of transfer appears critical for information literacy practitioners if we are to continue to define information literacy as a

critical practice and a prerequisites for lifelong learning...outside of tertiary contexts" (p. 188). Despite – or indeed because of – its prevalence, there is potential for this claimed and hoped for status of information literacy to assume something of a metanarrative. In making this assertion I am not seeking to position information literacy researchers as necessarily wishing to promote a totalising discourse that elides difference and homogenises diversity; as I indicate below, a number of those researchers acknowledge and take up the importance of resistant as well as celebratory takes on information literacy. My point here is that (like critical theory and informal learning) information literacy can become complicit with narrowly defined conceptions of lifelong learning and thereby enhance an equally narrow range of interests and perspectives (such as those associated with 'big business' and late capitalism that coopt individuals' capacities and energies to serve the very different interests of global enterprise). This enhancement is perhaps inevitable, given the complex intersections among tertiary education (the site of most information literacy research [Edwards, Bruce & McAllister, 2005, p. 26]), paid employment, career trajectories and the accumulation of individual, national and global capital. Evaluations of the success of information literacy nevertheless entail privileging formal and cognitive over informal and emotional or spiritual learning outcomes and considering the proportion of (mostly formal) learners who demonstrate their acquisition of capabilities that serve simultaneously the interests of those learners and late capitalism – a potential dilemma neatly encapsulated by Bruce (2004): "[Information literacy] is generally seen as...central to achieving both personal empowerment and economic development" (p. 8). More broadly, questions attend whether information literacy (identified in the singular rather than the plural) is a Western-centric and/or a middle class concept (questions that also attach to lifelong learning), reflected in the argument by Kapitzke (2003) that "because the assumptions of the information literacy framework hail from print cultures, a modernist paradigm and psychologistic discourses, it is not so much a panacea but a hindrance to critical and transformative literacy practice" (p. 53).

Of course the riposte to this charge of information literacy as a potential metanarrative and as characterising lifelong learning successes and futures in somewhat restrictive terms – a riposte that has been made already by some of the authors referenced here – is that information literacy is much more than the instrument of late

capitalism and economic activity. For example, Edwards' (2006) four categories of information searching were elicited from Internet- rather than print-based literacy; Bruce's (1997) seven faces of information literacy emphasise "becoming aware of different ways of experiencing information use through engaging in relevant information practices and reflection" (2004, p. 9), implying a heterogeneous understanding of the phenomenon; and Breivik (2000) reminded us that "Access [to both information and literacy] is key" (p. 4). In further examples of information literacy as a counternarrative to the totalising potential of global capitalism, Lupton (2004) has challenged the limitations of library-centric approaches to information literacy; Hughes, Bruce and Edwards (2006) have argued for a critically reflective approach to promoting information literacy in the increasingly pervasive online learning environments; and Hughes (2004) has highlighted the cultural specificities of promoting information literacy among international students.

The interplay between these metanarratives and counternarratives creates particular opportunities and challenges for reflecting on successes and framing futures in lifelong learning by means of information literacy. On the one hand, initiatives such as the development of information literacy standards by bodies such as the Council of Australian Universities Libraries and the Council of Australian State Universities (Peddey, 2006, p. 257) augur well for lobbying for minimum levels of access and contain the prospects of more diverse and heterogeneous approaches to understanding and enacting information literacies. On the other hand, the existence of counternarratives renders difficult reaching definitive conclusions about the breadth and depth of the effectiveness and impact of information literacy strategies and fuels the continuing debate about assessing particular dimensions of information literacy. Furthermore, unless vigilance is maintained, information literacy, like generic skills (Coombes, Danaher, Anteliz & Danaher, 2000) and graduate attributes, can become the vehicle for implementing a narrow range of education experiences that constrain and restrict lifelong learning's successes and futures.

Critical Theory

The connection between critical theory and counternarratives in lifelong learning research and scholarship is axiomatic. Critical theory is predicated on challenging current power bases and political structures and on explicating the intangible and invisible ways in which certain interests and perspectives are privileged and

others are devalued and silenced. This process is crucial if claims about lifelong learning successes are to be substantiated and if more equitable and enabling lifelong learning futures are to be framed.

The application of critical theory lenses to lifelong learning scholarship is a recurring theme in previous conference proceedings. For example, in 2000 Jarvis (2000) argued that "learning is amoral in itself but both what we choose to do with and how society seeks to control our learning, are much more problematic" (p. 20) and, resonating with this paper's title, that an ethical discourse about lifelong learning is needed "in which the story sounds better and the reality might just be affected as a result" (p. 26), while Parry, Dwyer, Reid-Searl and Baillie (2000) called for critical theory to "become an essential part of the nursing curriculum" in order "to address the moral and emancipatory aspects of knowledge" (p. 274) in such curriculum. In 2002 Findsen (2002) deployed the political economy perspective within the critical gerontology paradigm to critique lifelong learning participation by and provision for older adults in New Zealand, while Harreveld, Danaher and Kenny (2002) pondered whether "the institution's use of the language of the lifelong learning community is actually a strategy of entrapment" (p. 207) in relation to a distance vocational teacher education program. In 2004 Kenny (2004) articulated the enduringly significant questions about lifelong learning discourses "...who preaches; who is the moral trendsetter? And from what platforms can the dominant discourse be challenged?" (p. 21), illustrated by reference to various minority communities in Ireland, while Priest and Quaife-Ryan (2004) advocated the disruption of the dominant economic rationalist discourse and the objectivist epistemology attending lifelong learning by the re-enchantment of education and the rediscovery of teaching as a sacred activity. In 2006 Grace (2006) examined the extent to which previous keynote presentations in the lifelong learning conference "demonstrate critical intelligence, with foci on options, evaluations, decisions, freedom, and ethics?" (p. 3), while Tyler (2006) explored the possibilities of critical spirit in animating the lifelong learning of technical and further education teachers in Queensland.

Despite the analytical advantages of articulating these and other counternarratives in lifelong learning research and scholarship, it is important to acknowledge that critical theory – like any paradigm or worldview – can become a metanarrative if its speaking positions become

dominant in particular contexts and situations. This can occur if the tenets of critical theory are held to be the most insightful, or even the only, ways of understanding and engaging with the world, neatly summarised in the charge by some critics that critical theory “attempts to reduce or totalize all phenomena so that they fit within a single integrated framework” (Johnson & Duberley, 2000, p. 143), as well as in the linking of “a critique of Critical Theory” with “A question...[about] the extent to which Critical Theory itself, as a systematization of the system of the culture industry, necessarily falls prey to the very tendencies it claims to criticize: the subsumptive tendency of the system” (Weber, 2004, p. 235). There is also the potential concern that it is easier for critical theory to critique the *status quo* than to proffer sustainable alternatives. There is as well the curious paradox that some proponents of critical theory are seen as conducting themselves in ways that resemble the marginalising strategies that they contest; this recalls Kenny’s (2004) telling observation that “the gap between the myths or gospels preached by [ideologies] and the reality of practice was unconscionably wide” (p. 21), as well as feminist writer Gur-Ze’ev’s (2005) reference to the paternalism of some strands of critical theory. Given this paper’s subtitle, perhaps a key challenge for critical theory renditions of lifelong learning is the extent to which such accounts allow for other stories that lie outside the interplay between metanarratives and counternarratives to be heard and read. Despite the analytical utility of that interplay, it can become totalising (and therefore a new metanarrative) if it is used to reduce all formal, non-formal and informal learning experiences to the clash between corporate managerialism and neoliberal globalisation on the one hand and efforts to resist those forces on the other. This could mean that, in addition to Grace’s (2006) valuable connection between critical intelligence and a characterisation of people as “historical subjects with instrumental, social, and cultural needs” (p. 15) and Kell’s (2006) equally vital identification of “The challenge of achieving social justice with education and training [a]s one that merges aspects of human rights and re-distributive justice in economic terms...” (p. 24), we might wish to give greater space in lifelong learning scholarship to the emotional, the informal and the spiritual dimensions of such learning, as well as to other genres of telling lifelong learning tales like art, blogs, music, poetry and prose fiction. Part of the rationale for this suggestion is the apparent difficulty of using critical theory (as with information literacy) to make definitive claims about past successes of lifelong learning policies and practices and to

frame unquestionably sustainable and transformative lifelong learning futures on the basis of those claims.

Informal Learning

Initially a relatively minor but subsequently an increasingly popular theme in previous conference proceedings has been various examples of informal lifelong learning. These have encompassed workplace learning, community engagement, recreational pursuits and post-retirement activities. In 2002, as noted above, Findsen (2002) identified the informal, non-formal and formal learning opportunities available to older adults in New Zealand, while Hurworth (2002) examined the effectiveness of the University of the Third Age in Victoria in helping to create “a set of stronger, more permanent learning communities” (p. 214). In 2004 Kennedy (2004) explored the possibilities for knowledge management and workplace learning in complex organisations, while Penman and Ellis (2004) outlined several ways in which the University of South Australia’s Whyalla campus established educational links of varying degrees of formality with its regional community. In 2006 Jackson (2006) analysed the role of the British National Federation of Women’s Institutes in promoting informal participation in learning by older women, while Danaher (2006) exemplified his notion of inalienable interconnectivity as a promoter of lifelong learning by reference to a hypothetical small reading group or book club.

Informal learning’s status as a counternarrative in lifelong learning scholarship is centred on its contestation of deficit views that derive from structuralist paired terms in which the first term is privileged over the second, such as formal–informal, male–female, public–private, urban–rural and sedentary–itinerant. This was encapsulated in Findsen’s (2002) insight that, in relation to lifelong learning and older adults, “we do not have to agree with deficit explanations of ageing – those that depict older adults as decrepit, frail or physically and mentally wanting – a more active and positive image of older adult can be projected instead” (p. 173). It is precisely because informal lifelong learning research makes explicit otherwise intangible and invisible aspects of learning that these more enabling stories can be told – often very evocatively and powerfully.

At the same time, and paradoxically, it is this increasing scholarly acceptance of informal learning that renders it liable to capture and transmutation into a metanarrative. This is because – like lifelong learning – informal

learning once taken over by the forces of measurement, regulation and surveillance loses its joy, spontaneity and non-cognitive and non-economic aspects. (This process can be likened to the risks associated with changing an *ad hoc* set of relationships based on informal collegiality and mentoring to one with prescribed meeting schedules, performance indicators and outcome targets.) The totalising tendency of metanarratives therefore threatens the agency and energy associated with informal learning that make it (as a counternarrative) vital to the sustainable futures of workplaces, rural communities and groups of retirees, among others.

As with information literacy and critical theory, then, informal learning constitutes something of a paradox in relation to lifelong learning successes and futures. Even if it is the case that, “If all learning were to be represented by an iceberg,...the submerged two thirds of the structure would be needed to convey the much greater importance of informal learning” (Coffield, 2000, p. 1) than formal learning, it is difficult to evaluate the successes or otherwise of such learning unless it is subjected to much greater critical scrutiny than is currently the situation – and that brings with it some attendant risks. From this perspective, framing lifelong learning futures by means of a focus on informal learning as potential counternarrative and metanarrative might be considered simultaneously an inexact science and a strategic uncertainty (Coombes, Danaher & Danaher, 2004).

CONCLUSION: TELLING TALES, REFLECTING ON SUCCESSES AND FRAMING FUTURES IN LIFELONG LEARNING

All conceptual frameworks are open to contestation and critique, not least in relation to the inevitable limits on reflexivity of their proponents. That certainly applies in this case, where the posited interplay between metanarratives and counternarratives pertaining to lifelong learning research and scholarship might be perceived as excessively binaristic and polarised (even though I see their relationship as iterative, relative and mutually constitutive), and where the other types of narratives promised in the paper’s subtitle have been overshadowed by that interplay. Equally it is important to interrogate the relatively privileged position of the author as a university academic in a developed nation and the limits placed by that position on his understanding of the issues and on his capacity for empathy with proponents of alternative viewpoints.

Nevertheless I contend that telling tales of the kind examined here as well as of the many other types that are represented in the proceedings of this and the previous lifelong learning conferences is a useful activity. As I noted in the introduction, the telling of lifelong learning tales communicates representations – however limited and partial – of educational aspirations and experiences and provides opportunities for striving for new approaches to educational policy-making and provision.

More specifically, in very different ways, information literacy, critical theory and informal learning demonstrate the potential to become metanarratives that reduce the range and narrow the focus of understandings of lifelong learning successes and futures. From this perspective, a more celebratory discourse might attend claims about such successes, as measured by the massification of tertiary education and the enhanced prospects of international mobility for purposes of study and work. This discourse implies that lifelong learning futures should be framed in terms of ‘more of the same’ and ‘one size fits all’.

By contrast, information literacy, critical theory and informal learning also exhibit both types of counternarratives articulated by Peters and Lankshear (1996): those that disrupt “grand stories which gain their legitimacy from foundational myths” and those that contest “the ‘official’ and ‘hegemonic’ narratives of everyday life” (p. 2; *emphasis in original*). The former include the paired but differentially valued terms such as male–female, urban–rural and sedentary–itinerant identified above; the latter encompass policy pronouncements that all of us should be lifelong learners when that injunction refers to a narrow range of signifiers held to constitute lifelong learning. The effect of these counternarratives is to question excessively optimistic claims about the lifelong learning successes that have been achieved and to facilitate the framing of a broader range of lifelong learning futures than might otherwise be the case.

For all these reasons, then, telling tales (whether metanarratives, counternarratives or other stories) has much to recommend it in examining and enlarging lifelong learning research and scholarship. Let us use this conference, as we reflect on successes and frame futures in lifelong learning, also to tell new and different tales, so that they too become telling and compelling in their own right.

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NATIONAL FORUM ON INFORMATION LITERACY: *ADVOCACY IN ACTION*

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ABSTRACT

Dedicated to building diverse and integrated coalitions and collaborations at the national and international level, the National Forum on Information Literacy has made tremendous progress serving as a “beacon” for information literacy and lifelong learning. Globalization, technological advances, and demographic changes worldwide, however, continue to reflect that more is needed.

OVERVIEW

in-for-ma-tion lit-er-a-cy -n. 1. The core foundation for effective lifelong learning practice. -n. 2. A habit of mind and skill set essential for empowering individual growth and achievement in the Age of Information. -v. 3. To use the wealth of available information resources today to enrich the quality of academic, personal, and professional life.

Promoting the development of lifelong learners who are information literate is the fundamental *raison d'être* for the existence of the National Forum on Information Literacy. The unprecedented, societal transformation brought on by the Information Age has, in fact, redefined the traditional concept of literacy. Indeed, the historical reign of the 3 R's – reading, writing, and arithmetic – has morphed into a new 21st century umbrella literacy, incorporating the technology and information seeking skills that are currently dictating new competitive landscapes in the world marketplace today. Globalization, technological advances, and demographic changes worldwide present us with a new baseline for literacy in terms of how we teach, how we learn, how we interact, and how we train and retrain. Whether people are seeking to learn, make decisions, and/or solve problems in the workplace, in education or in everyday life, they need to understand and have access to the intellectual as well as technical tools necessary to utilize the full range of print and electronic resources available to them today.

The National Forum on Information Literacy is dedicated to building diverse and integrated coalitions and collaborations, at the local, national, and international level, that will insure its ultimate objective i.e. – mainstreaming information literacy philosophy and practices throughout every level of the modern world, from the complex spheres of the digital divide, across the spectrum of non-profit organizations and NGOs, governmental agencies, and corporate enterprises. Through its coalition

efforts, the Forum has made surprisingly significant progress in advancing the principles of information literacy and lifelong learning. Taking a closer look at its historical evolution provides insight into the unusual development of a volunteer organization dedicated to the systemic integration of information literacy and lifelong learning world wide.

BACKGROUND - THE NATIONAL FORUM ON INFORMATION LITERACY

The 1980's were watershed years in terms of educational reform and the evolution of information and communication technologies (ICTs) in the United States as well as around the world. The roots of the Internet were firmly planted with the establishment of ARPANET in the late 1960's and by the end of the 1980's, the Information Superhighway was leading the way in building a global ICT infrastructure. (Williams, 1991)

During this period of explosive growth in the coalescence of computing and telecommunications, the United States was facing a daunting dilemma. In 1983, the publication of America's first “report card” - *A Nation at Risk: The Imperative for Educational Reform*, heralded the failure of the American educational system in producing “a nation of learners”. (United States Department of Education [USDE], 1983)

According to this seminal report, the very educational foundations of American society were in a downward spiral, drowning in a sea of growing mediocrity, and challenging the maintenance of America's pre-eminent status worldwide in commerce, industry, science, and technological innovation. Many academic and governmental leaders firmly believed that without educational reform, the United States was on an irreversible course of third rate status. Most predicted a bleak future for the continued educational growth of American manpower, and the ability of the United States to compete effectively in the global marketplace. Those same sentiments continue to echo the halls of the

U.S. Congress today as evidenced by President Bush's 2001 *No Child Left Behind* legislation, intending to secure America's competitive advantage through well intentioned, but poorly funded educational reform propositions. (USDE, 2002)

Interestingly enough, missing from that groundbreaking report was the relationship of the academic library to teaching and learning in support of educational reform. In spite of their traditional role as the premier gatekeepers to the world's repositories of knowledge and information, librarians and the academic library were barely mentioned in the report. As the chief architects of information organization and knowledge management, this glaring oversight by educational and government leaders underscored their lack of understanding of the critical teaching and learning role played by library professionals in this new, evolving Age of Information. Many within the profession itself, not necessarily trained in the art of teaching and learning, were also challenged by the prospect of this new responsibility.

As early as 1983, Dr. F. Woody Horton, Jr., an information management consultant, recognized that an intellectual acumen and certain cognitive abilities would be required to engage effectively the complexities of working and living in an ICT universe.

"There is an emerging new dimension to computer use that hasn't yet found its way into the headlines because all of the pieces are not yet in place...If we really want to magnify the individual's productivity, [then] we must make him or her information efficient." (Horton, 1983)

And, ironically today, we are still wrestling with that very issue – the recognition of the intellectual skills required to become effective users of information and communication technologies in the 21st century. The educational reform movement of the 1980's saw information literacy emerge as an intellectual skill, a *habit of mind* reflecting the teaching and learning challenges associated with successfully navigating the channels of Alvin Toffler's prophetic *Third Wave*. (Toffler & Toffler, 1994)

AMERICAN LIBRARY ASSOCIATION – PRESIDENTIAL COMMITTEE ON INFORMATION LITERACY: FINAL REPORT- 1989

In 1987, as result of the unfortunate oversight made by U.S. educational and governmental leaders, the American Library Association (ALA) took it upon itself to establish a blue ribbon panel, the Presidential Committee on

Information Literacy. (American Library Association [ALA], 1989) The charge to this group was to examine the role of information literacy and its impact on individuals, business, and the concept of citizenship. They did so by:

1. Defining information literacy within the higher literacies and its importance to student performance, lifelong learning, and active citizenship;
2. Identifying and/or designing models of information literacy development that seem appropriate for formal and informal learning environments; and
3. Determining the implications for continuing education and teacher development.

"How our country deals with the realities of the Information Age will have enormous impact on our democratic way of life and on our nation's ability to compete internationally." (ALA, 1989)

In 1989, the Committee produced its final report, in essence, stating that

information literate people are those who have learned how to learn. They know how to learn because they know how information is organized, how to find information and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning because they can always find the information needed for any task or decision at hand.

The Committee went on to say:

In terms of individual lives - the role of information literacy as a source of personal empowerment, allowing people to refute expert opinion and to become independent seekers of truth...preparing them to engage in the practice of lifelong learning...it is unfortunate that the very people who most need the empowerment inherent in being information literate are the least likely to have learning experiences [and/or opportunities] which will promote those abilities.

In the world of business - the need for people in business who are competent managers of information is important at all levels and the realities of the Information Age require serious rethinking of how businesses should be conducted, "...and those who learn now to achieve access of knowledge that already envelops the world will be the future's aristocrats of achievement, and they will be far more numerous than any aristocracy in history."

As for the status of citizenship - in a modern democracy, citizenship involves more than knowledge of how to access vital information. It also involves a capacity to recognize propaganda, distortion, and other misuses and abuses of information...Any society committed to individual freedom and democratic government must ensure the free flow of information to all its citizens in order to protect personal liberties and to guard its future and [sustain its economic prosperity]. (ALA, 1989)

The Final Report laid out a very thoughtful treatise on the importance of mainstreaming the philosophy of information literacy throughout American society, concluding with the following recommendations:

1. We all must reconsider the ways we have organized information institutionally, structured information access, and defined information's role in our lives at home, in the community, and in the workplace.
2. A Coalition for Information Literacy [National Forum on Information Literacy] should be formed under the leadership of the American Library Association, in coordination with other national organizations and agencies, to promote information literacy.
3. Research and demonstration projects related to information and its use need to be undertaken.
4. State Departments of Education, Commissions on Higher Education, and Academic Governing Boards should be responsible to ensure that a climate conducive to students' becoming information literate exists in their states on their campuses.
5. Teacher education and performance expectations should be modified to include information literacy concerns.
6. An understanding of the relationship of information literacy to the themes of the White House Conference on Library and Information Services should be promoted. (ALA, 1989)

The ALA Presidential Committee's Final Report provided American policy makers with an insightful blueprint for transformative systemic change, one capable of meeting successfully the challenges inherent in a dynamically evolving Information Society. Unfortunately, their combined preoccupation with educational reform and unconscious resistance to change short-sighted their vision and, as a result, burdened

tremendously those impacted by the reality of the digital divide. All was not lost, however. U.S. Congressman Major R. Owens observed that information literacy was, in fact, needed to guarantee the survival of democratic institutions. Congressman Owens stressed that all men were created equal but voters with information resources were in the position to make more intelligent decisions than citizens who were information illiterate. The application of information resources to the process of decision making to fulfil civic responsibilities was a vital necessity. (ALA, 1989)

It was against this backdrop that the National Forum on Information Literacy was formed. The road ahead would prove challenging for the Forum, particularly with convincing governmental, business, social, and educational policy leaders about the inextricable connections between information literacy, the digital divide, and future economic growth and prosperity.

THE PROGRESS REPORT ON INFORMATION LITERACY: AN UPDATE ON THE AMERICAN LIBRARY ASSOCIATION PRESIDENTIAL COMMITTEE ON INFORMATION LITERACY: FINAL REPORT-1998

In 1998, the Forum published its first report assessing the progress made on the six recommendations articulated in 1989 by the ALA Presidential Committee. (ALA, 1998) In five of the six recommendations, significant progress had been accomplished on various levels in terms of the original tasks as outlined by the ALA Presidential Committee. The fifth recommendation, however - *Teacher education and performance expectations should be modified to include information literacy concerns* – was the only recommendation in which no progress had been made. Clearly, it required more strategic vigilance in persuading teacher accreditation organizations, by that time overwhelmed by the demands of educational reform, on the values and opportunities associated with integrating information literacy philosophy and practices within their professional development programs. The tenor of the times, the psychosocial cultural shift, and the rapid ICT transformation impacted every level of American society, often producing unanticipated social and economic consequences that challenged even the most prepared.

Building upon the accomplishments of the last 10 years and setting the tone for the Forum in the new millennium, the Progress Report concluded with recommending several action steps i.e., identifying *challenges yet to be met*:

1. Forum members should encourage and champion the growing support of accrediting agencies;
2. Teacher education and performance expectations need to include information literacy skills;
3. Librarian education and performance expectations need to include information literacy.
4. Forum members need to identify ways to illustrate to business leaders the benefits of fostering an information literate workforce.
5. There needs to be more research and demonstration projects related to information literacy and its use. (ALA, 1998)

The last two recommendations set the stage for the Forum in recognizing the need for the expanse of its influence beyond the realm of education and library and information science as the dawning of the new millennium and its associated challenges began to dominate national discourse in 1998.

PRAGUE DECLARATION – TOWARDS AN INFORMATION LITERATE SOCIETY - 2003

As the Forum marched into the 21st century, it became clear that U.S. acceptance of information literacy as a key indicator of America's ability to sustain its competitive advantage worldwide had yet to take root within the mindset of national policy leaders. Although, by this time, several national organizations had included information literacy as a benchmark within their professional standards, information literacy as a commonplace practice had yet to permeate the social, economic, and educational fabric of American culture. Raising the visibility of information literacy philosophy and practices nationally became an even more intense endeavour for the National Forum than had been originally envisioned by the ALA Presidential Committee in 1989.

The perspective internationally, however, was much more receptive to the need for dialogue and the mobilization of grass root level activities inclusive of information literacy efforts as evidenced by UNESCO's *Information for All Program* initiatives. (UNESCO, 2008) After several years of planning with representatives from the U.S. National Commission on Library and Information Science (NCLIS) and UNESCO, the National Forum convened on September 20-23, 2003, the first experts' meeting on information literacy in Prague, the Czech Republic. This invitation only conference was

designed specifically to bring together 40 information literacy experts from around the world to discuss the global impact of information literacy. This group of eclectic individuals represented 23 different countries, 7 geographic regions, and had interests in one or more of the following domains: economic development, education, human services, library and information science, and policymaking. The goals of the meeting and the overall objectives were as follows:

Goals

- To raise the general awareness of the strategic importance of Information Literacy worldwide, but especially to senior and middle level policy-makers and executives in the both the private and public sectors;
- To identify enlightened public policies and other effective tools, approaches, strategies, and recommendations needed to promote Information Literacy at all levels, international, regional, national, and sub-national, and in all sectors; and
- To help close the gap between the information literacy haves and have-nots, and in so doing help close the digital divide.

Objectives

- To develop a clearer and more comprehensive vision of the role of Information Literacy in support of individual, organizational, institutional, and national goals in all sectors of society, and in all segments of the economy, as well as in governance;
- To affirm or strengthen a working definition of Information Literacy: "People are information literate who know when they need information, and are then able to identify, locate, evaluate, organize, and effectively use the information to address and help resolve personal, job-related, or broader social issues to problems;" and
- To make preliminary recommendations as to the possible goals, themes, and invited participant audiences for a Global Congress on Information Literacy perhaps a year from the Meeting of Experts. (National Forum on Information Literacy [NFIL], 2003)

Over the course of the three day meeting, the Prague group vigorously debated the goals and objectives of the conference. After much discussion, the participants unanimously agreed that in order to mobilize an effective civil society

and create a competitive workforce in a world dominated by information and communication technologies, the following three, critical elements were essential: 1) ready access to information and communication technologies; 2) unrestricted availability of needed information; and 3) an information literate citizenry. (NFIL, 2003) Perhaps, the most significant take away experienced by all of the participants was the binding connection of information literacy in spite of their diverse perspectives and the fundamental recognition that in an information society, information literacy was, in fact, the lifeblood of any nation aspiring to achieve social justice, educational opportunity, and economic self sufficiency.

Shortly thereafter, the proceedings from this historic, international conference of information literacy were published, "*The Prague Declaration: Towards an Information Literacy Society*", basically defining the challenges associated with mainstreaming information literacy philosophy and practices and offering prescriptive next steps relating to economic development, education, health and human services, library and information science, and governmental policymaking. (NFIL, 2003)

ALEXANDRIA PROCLAMATION - HIGH LEVEL COLLOQUIUM ON INFORMATION LITERACY AND LIFELONG LEARNING – 2005

Following up on the terrific momentum established by the Prague meeting, a subsequent gathering was held in Alexandria, Egypt on November 6-9, 2005. The International Federation of Library Associations and Institutions (IFLA), UNESCO, and the National Forum on Information Literacy (NFIL) jointly convened another high level experts' meeting, a colloquium on information literacy and lifelong learning at the Bibliotheca Alexandrina. The Prague planning team coordinated the follow-up meeting, inviting a new group of approximately 30 interdisciplinary participants from 17 countries, representing six major geographic regions, to assess the progress and opportunities for implementation of the Prague report's recommendations. Building upon the recommendations of the Prague group and on the Colloquium goal of empowering citizens across the globe to be information literate, the Alexandria experts' enthusiastically reaffirmed the investment in information literacy and lifelong learning and designated them both as the "beacons" of the Information Society:

Information Literacy lies at the core of lifelong learning. It empowers people in all walks of life

to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. It is a basic human right in a digital world and promotes social inclusion of all nations.

Lifelong learning enables individuals, communities and nations to attain their goals and to take advantage of emerging opportunities in the evolving global environment for shared benefit. It assists them and their institutions to meet technological, economic and social challenges, to redress disadvantage and to advance the well being of all. (NFIL, 2005)

Participants at the Alexandria meeting laid out an international dissemination strategy, sponsored primarily by UNESCO. In addition, they developed the framework to host a world congress on information literacy and lifelong learning that would undergird the impressive outcomes of the World Summit on the Information Society held in Geneva in 2003 and in Tunis in 2005. The Colloquium planners hoped to convene the proposed world congress, if not by the end of 2008, then certainly before the end of the U.N Literacy Decade in 2012.

INFORMATION LITERACY SUMMIT - AMERICAN COMPETITIVENESS IN THE INTERNET AGE - 2006

Meanwhile, back on the U.S. home front, articulation and adoption of information literacy practices nationwide continued to evolve slowly, with limited progress documented primarily within the library science and K-16 education domains. Concerns about America's ability to sustain its competitive advantage against a resurgence of educational mediocrity were again sweeping the country. Recent reports and studies underscored the harmful impact of a confluence of economic, social, and political factors undermining America's stature in the global marketplace. (America's Promise Alliance, 2008; USOST, 2006; Uhalde et al, 2006)

As a result of these concerns and those expressed at the Prague 2003 and Alexandria 2005 meetings, the National Forum on Information Literacy in partnership with the several U.S. organizations - Committee for Economic Development, the Educational Testing Service, the Institute for a Competitive Workforce (an affiliate of the U.S. Chamber of Commerce), and the National Education Association - convened on October 16, 2006 an invitational summit on information literacy, the first of its kind held in the United States. The overarching theme of the Summit was: "How do we adequately prepare individuals – students and workers - to be

lifelong learners with the skills necessary to compete in a rapidly changing world?" Over 100 U.S. representatives from education, business, and government attended the day long affair. (NFIL, 2006)

The Summit planners were hopeful that this was the beginning of a critical realization on behalf of U.S. policy makers from the various sectors that the acceptance of information literacy as core to any effort to insure America's competitive advantage in the global economy was crucial if we were to retain our leadership status worldwide. Although the goals for the Summit were ambitious, it did underscore the irrevocable, symbiotic link between information literacy and the dynamically changing world of ICTs.

Summit Goals:

- (1) Raise awareness among policy makers and the media about the importance of an information-literate society in the 21st century;
- (2) Develop a comprehensive strategy to increase the number of highly-skilled information literate people in the United States; and
- (3) Establish information literacy standards and assessments nationwide. (NFIL, 2006)

At the conclusion of the Summit, the National Forum on Information Literacy announced the establishment of the National ICT Literacy Policy Council, charged with providing leadership in creating national standards for ICT literacy inclusive of information literacy philosophy and practice. Working with the Educational Testing Service's iSkills team, the Policy Council established a set of national ICT literacy standards that provided ETS with the information literacy/ICT philosophical foundation for the refinement of their iSkills assessment tool. (National ICT Literacy Policy council, 2007) Measuring how successful the Summit was in achieving its other goals i.e., raising awareness and developing a comprehensive strategy to increase the number of highly-skilled information literate people in the U.S. remains to be seen.

THE NATIONAL FORUM ON INFORMATION LITERACY - 2008

Today, the National Forum has a membership of 93+ national and international organizations, representing the interests of education, government, business, NGOs, and non-profit organizations, all pledging allegiance to the principles and practices of information literacy within their given domains. The Forum hold

meetings three times a year in Washington, D.C., inviting experts from a variety of fields to share their perspectives on information literacy and engage in collaborative activities with the Forum. For first 17 years, this loose confederation of diverse organizations, under the expert leadership of Dr. Patricia Senn Breivik, has made tremendous progress in its efforts to mainstream information literacy worldwide in spite of its unique standing as a voluntary member organization with no formal organizational structure.

The primary challenge today for the National Forum is to formulate a strategic plan that will dispel the thin veil of illegitimacy that still haunts information literacy. Although highly respected within the library and information science fields - not without its detractors, of course - the concept of information literacy is most often perceived outside of that domain as just one more "*fad*" literacy to be dealt with in the spheres of teaching and learning and educational reform.

Unfortunately, evidence based research on information literacy practices outside of the library and information science fields is still very limited which, no doubt, intensifies its vulnerability in terms of its acceptance as a viable, 21st century educational and workforce development strategy. As a coherent, teachable, asset based skill set approach to lifelong learning practice, information literacy does represent an amalgam of educational philosophies, principles, and techniques. In fact, evidence based research is, ironically, a relatively new phenomenon in the field of education, according to Dr. Robert E. Slavin, renowned educational researcher and Director of the Centre for Research and Reform in Education at Johns Hopkins University and at the Institute for Effective Education at the University of York, in York, United Kingdom. (Slavin, 2002) This, no doubt, would account for the level of scepticism information literacy often receives whenever it is discussed outside of the library and information science disciplines.

An advocate for the use of the medical model of evidence based research in education, Dr. Slavin believes that using the successful medical research model as a template will generate efficacious, evidence based educational practices that will enhance student performance...*ay, there's the rub*...although successful in finding clinical solutions for acute and chronic medical conditions, the medical community is still challenged by the conundrum of how to take knowledge from clinical research environments and successfully apply or adapt the research

findings to actually changing patient behaviour in real-world environments. In the end, whatever methodology is used, it is clear that without documented evidence of the empowering nature of information literacy on individual skill building, recognition of it as central to sustaining a nation's competitive advantage and economic viability in the 21st century will remain moot.

MORE IS NEEDED...

In 2009, the National Forum on Information Literacy will be celebrating its 20th anniversary. As it moves forward on its mission to mainstream information literacy on the local, national, and international level, the National Forum, in doing so, intends to retain its underlying commitment to inclusiveness and coalition building while expanding its sphere of influence in other domains. The U.N. International Labour Organization offers this unique perspective "...there is every indication that learning needs to become a lifelong function. If knowledge, skills and learning abilities are not renewed, the capacity of individuals – and by extension, of communities or nations – to adapt to a new environment will be considerably reduced, if not cut off entirely." (U.N. International Labour Organization, 2000). More involvement by like minded lifelong learning champions is highly desired if the ubiquitous application of information literacy principles and practices is to be achieved across educational and workplace spectrums.

World events today dictate that within established and fledgling democracies, the fundamental ability to think critically, communicate effectively, solve problems, make informed decisions, and have access to ICT tools and resources are, in fact, the key intellectual skills needed by every capable individual not only to compete in a global economy, but also to exercise the rights and responsibilities of democratic citizenship. U.S. President James Madison admonished in the early 19th century:

A "democracy" without access to information or the intellectual skills to interpret information is, in essence, a totalitarian state, where diversity of any form is non-existent," ..., "A popular government without popular information or the means of acquiring it is but a prologue to a farce or a tragedy or perhaps both. Knowledge will forever govern ignorance, and a people who mean to be their own Governors, must arm themselves with the power knowledge gives." (Madison, 1822)

Fundamentally speaking, information literacy, as a basic human right, is not only an agent for social change, but, more importantly, a bridge to

social justice, economic self sufficiency, and educational opportunity both at home and abroad.

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MEETING THE CHALLENGE: INCREASING ACCESS, EXPLOITING THE USE OF C&IT AND ENHANCING THE QUALITY OF LEARNING AND TEACHING

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INCREASING ACCESS

There is no shortage of challenges facing education. Perhaps one of the most significant, best articulated, and most widely accepted is Millennium Goal 2: *Achieve universal primary education* [<http://www.un.org/millenniumgoals>]. The target of Millennium Goal 2 is to ensure that, by 2015, all boys and girls will be able to complete a full course of primary schooling. There is some evidence to indicate that progress is being made towards this goal. Indeed, the proportion of children in primary education in developing countries increased to 88% in the school year 2004/2005 (UNESCO, 2007). However, there are still over 113 Million children, mainly girls, who are denied schooling worldwide and some 800+ Million illiterate adults worldwide; two-thirds of these are women (Latchem, Lockwood and Baggaley, 2007). National Open Schools are enabling children to gain access to education. For example, in India the Institute for Open Schooling [<http://www.nios.ac.in>], together with Regional Open Schools has increased participation rates to 90%-95%. India's National Assessment and Accreditation Council have released a toolkit aimed at enhancing the quality of teacher education [<http://naacindia.org/publications.asp>]. SchoolNets, such as the one in Africa [<http://www.schoolnetafrica.org/english/index.htm>] are also increasing access. Indeed, at the launch of the 2008 PAN Commonwealth Conference at the University of London, 17th May 2007, Professor Abdul Khan, Assistant Director General for Information and Communication, UNESCO noted that the world-wide trend for school enrolments was accelerating. However, at the same event the President of the Commonwealth of Learning, Sir John Daniel, noted that although encouraging this increased enrolment in primary schools "... is creating a tidal wave (of students) directed at Secondary Schools" – and subsequently a surge of students wanting to enter higher education. In working to achieve millennium Goal 2 we are increasing the challenges facing tertiary and higher education. Indeed, over ten years ago, when Vice Chancellor of the UK Open University, Daniel remarked:

In the last seven days, somewhere in the world, a new university campus should have

opened its gates to students. Next week, in a different location, another new university ought to begin its operations.

At the end of the millennium in which the idea of the university has blossomed, population growth is outpacing the world's capacity to give people access to universities. A sizeable university would now be needed every week merely to sustain the current participation rates in higher education.

(Daniel, 1996, p.4)

I am unaware of a new university being opening this week – or last week – or the week before. However, I am aware of the expansion in distance education around the world and success of Open Universities in SE Asia as well as those planned for Africa: the African Virtual University [<http://www.avu.org/home.asp>] and small nation states such as the Virtual University of Small States of the Commonwealth [<http://www.col.org/colweb/site/pid/3109>]. The growth of national Open Universities, their expansion and conventional universities embracing distance learning methods, has been a success story. It is thus surprising that an advanced technological country, like Singapore, is planning a fourth conventional university that will enrol 2,500 – 3000 per year to meet increasing demands for higher education. Unfortunately, with 81,900 applications for 13,950 places at the three Singaporean Universities in 2007 it is clear that simply scaling up current provision will not satisfy demand (Strait Times, 2008). To meet the challenge of increasing access we will need to teach differently and to embrace C&IT and distance teaching methods.

USING APPROPRIATE MEDIA

An array of audio, video, textual material and realia ('the real thing') are used in a variety of ways in our teaching; they represent a powerful mix of media. But how do we ensure we use these media, and the powerful interactive features of C&IT, to best effect? How do we avoid using technology for 'technology sake', select and deploy appropriate media? What criteria do we adopt in determining which are the most appropriate media for our needs, or rather the needs of our students, and how do we deploy

these in a Flexible Learning context? The ACTIONS Model, summarized in Figure 1, (Bates, 1995) has been invaluable to teachers, trainers and course designers.

Figure 1: **ACTIONS** model: Strengths and weaknesses of the medium

Access	- to the medium
Cost	- to student and institution
Teaching	- the role it performs
Interaction	- that is facilitated
Organisation	- its ability to support
Novelty	- to the learner
Speed	- to generate the medium

(Bates, 1995)

The model enables us to consider Access to the medium in question – if all learners do not have ready access is the use of this medium appropriate? It addresses the Costs associated with that medium for institutions and learners – can the institution create and distribute that medium cost effectively, can learners afford it? The model encourages the learner to consider the Teaching function of that medium – does the medium used facilitate the desired learning outcomes, is it the most appropriate application for this technology? Learner Interaction with the medium is obviously a key consideration – what interaction does it facilitate and are these the ones desired? In pragmatic terms, the Organisation is not only responsible for generating the media, its distribution, but also its support and maintenance – can the institution sustain the use of this media? Whilst the media being considered may not represent Novelty to the teacher or trainer could it be intimidating to the learner – would the learner have the necessary skills to interpret the media used? The major cost in any teaching or training operation is staff. At what Speed can the medium be produced – can it be updated readily?

The model serves to reveal the strengths and weaknesses of particular media in a particular teaching context. Application of the model to the design of teaching material could do much to avoid 'electronic page turning' sites and others that merely leave learners to 'fend for themselves'. A Code of Practice that required course designers to assess the appropriateness of the different media deployed in the teaching material could do much to ensure the quality of course materials. What is more, such attention to the most appropriate use of media could save valuable resources - resources that are expended on high cost but low efficacy media.

EXPLOITING THE MEDIA

When thinking about teaching media in general, and C&IT in particular, it is tempting to consider the most recent, high profile technological developments and to consider their potential use in learning and teaching. For example, the Sony hand-held videogame machine, the PlayStation Portable now has a new facility, to connect to Skype - the free voice-over-Internet service. This hand-held, battery driven mobile device with computing power and connectivity is illustrative of developments in mobile or mLearning (Kululska-Hulme and Traxler, 2005) and is likely to have numerous educational applications.

However, one needs to differentiate between the medium being used in teaching and learning and the delivery method. Via three simple media categories - audio, video and realia I would like to illustrate how innovation and good practice can be exploited within the context of C&IT.

Audio

If increasing access to education is a major challenge in developing countries then the contribution of the clockwork radio (Baylis, 1999) must stand out as a milestone. The power of audio and linking audio to other media – audio vision – has long been recognised. Indeed, over ten years ago Tony Bates noted

When I am pressed to say what I think is the most cost-effective teaching medium, I tend to answer 'audio cassettes plus print'. I believe that audio cassettes are the most underrated technology of all in open and distance learning. (Bates, 1995, p. 148)

CDs, DVDs and steaming audio may have replaced audio cassettes but the power of audio vision remains. Indeed, for the first two decades of the UK Open University broadcast radio was an integral part of the teaching package. Improvements in technology now mean a radio station can be fitted into a suitcase, powered by a car battery or solar power, and linked to FM networks [<http://www.col.org/colweb/webdav/site/myjahia/site/shared/docs/suitcase.pdf>]. In Tajikistan, Uzbekistan and Kyrgyzstan the Silk Road Radio [<http://www.silk-roadradio.uz>] delivers Soap Operas, with educational themes, to millions of listeners. In the State of Ceara, Brazil, the School of Public Health provides print materials to distant health workers, circulated in newspaper format as part of a State wide commercial newspaper, and links this material to a State wide radio programme. In Bangladesh, illiterate farmers are using a portable audio player, in the vernacular language, to learn how to grow Nile

Tilapia in rice paddies. This ‘double cropping’ is raising the standard of living and educating illiterate adults (Barman and Little, 2006).

Video

An even more powerful media is video – be it on DVD or streaming from a server. Video has, for example, the ability to present accounts from experts, famous designers or innovators as illustrated in the account of the invention of *Netlon* (the thermo-plastic mesh that is extruded from rotating dies (see video clip 1). The animation sequence, that illustrates the design features of *Netlon* production, would be extremely difficult and lengthy to explain in words or diagrams. In this context, animation is an appropriate medium.

The ability to simulate real life events, with none of the attendant dangers is illustrated in an extract from the UK Royal National Lifeboat Institution (RNLI) *Sea Safety Training* Interactive CD [<http://www.rnli.org.uk/seasafety>]. Sailors will be aware of the importance of recognising Cardinal Marks – the prominent North, South, East and West buoys that are positioned at key points on charts and the importance of being able to recognise their light signature in fog. The RNLI interactive CD displays the shapes and colours of these buoys, allows the user to ‘increase’ fog levels until only their light signature is visible (see video clip 2); another good use of the medium.

Video has the ability to present a sequence of particular activities or experiments; to provide primary source material upon which the theories are based and to collapse a lengthy real time process into a short period of time thus illustrating a sequence of events more efficiently. The illustration of the *Rabbit’s Heart Experiment* (see video clip 3) combine these key features. Apart from only one rabbit’s heart being sacrificed it gives the learner a clear view of the entire experiment, it compresses hours of laboratory work into a few minutes and yet provided experimental data from which to work; another fine example of using the most appropriate media. Other examples, plus advice on the most effective deployment of video and multimedia have been assembled (Koumi, 2006).

None of us would advocate replacing practical work with video representation – but being able to view an expert practitioner, in action, and to be able to replay that particular practical skill on demand, is one of the strengths of video. This was exploited in the DenTec Project at

Manchester Metropolitan University (Ready, 2002). Demonstrations of dental techniques were recorded on high quality video so that all students could see exactly what was happening – sometimes clearer than the actual demonstrator! The archiving of these images, and their availability on demand, was judged by learners to be a significant aid to learning.

Realia

Using ‘the real thing’ in teaching is not always easy – as the UK Open University discovered when it decided to teach the physiology of the brain – sending learners a real sheep’s brain through the post! More recent versions of the course use a plastic model of a human brain that allows the learner to study the various components (see video clip 4). The model is anatomically correct with removable component parts that fit together. In another course UK Open University students studying geology do not spend long field trips collecting poor specimens but receive appropriate specimens, together with slides, diagrams, charts and a magnifying glass to aid their study (see video clip 5).

Paramedics undergoing training at Auckland University of Technology are able to diagnose and treat dozens of medical emergencies without risking the life of a single patient. The full size manikin that replaces a human being has a pulse, blood pressure and can ‘speak’ to the paramedic via electronic communication equipment installed in the manikin! The trainer can simulate the symptoms of these medical emergencies, tell the paramedic (via the manikin) what they feel and react to the treatments received.

Whilst practical activities are often prized, and represent a demonstrable learning outcome, it does not mean these practical activities have to be undertaken in a laboratory or clinical setting. The Society of Cosmetic Scientists [<http://www.scs.org.uk>] realised that their successful diploma could simply not be scaled up to offer more places. Attendance in London for a weekly practical sessions precluded hundreds of potential learners. Their decision to transform the required practical work, into a series of Practical Activity Kits (PAK), enabled a five-fold increase in student numbers. Replacing a two-week residential course on perfumery by a 20 hour PAK serves to illustrate what is possible. It is noteworthy that the director of the residential course is on record as saying the PAK was ‘as good if not better than the residential course’. The experience led the University of Plymouth to offer the first degree in perfumery – offered at a distance.

EXPLOITING C&IT

The recent (2007) survey of C&IT and education in 53 African countries

[<http://www.col.org/colweb/site/pid/4766>]

provides information on:

- How C&IT is currently being used in the education sector in Africa, and the strategies and policies related to its use.
- The common challenges and constraints faced by African countries in their use of C&IT.
- What is actually happening in these countries and extent of donor involvement.

Amongst the survey findings are reported growing public and private partnerships, increasing digital content development, growing interest in open source software and operating systems, improved connectivity and rapid growth in wireless networks. Case studies of innovation and good practice are provided.

Examples of innovation and good practice can be found around the world. In India, specially equipped trains take information, business and agricultural training to remote communities (Baggaley and Ng, 2005). Furthermore, the large scale production of the Amida Simputer [<http://www.amidasimputer.com>] and the One Laptop Per Child initiative [<http://olpc.com/pictures.html>] - costing US\$100, will make C&IT available to increasing numbers of learners. Plans by the Indian Government to design the US\$10 laptop will further increase access. Elsewhere, in Bangladesh, boats equipped with solar-powered C&IT facilities travel the river networks to provide free education and library services (Latchem, Lockwood and Baggaley, 2007). In Malaysia: specially equipped buses take C&IT facilities to remote areas [<http://sdnhq.undp.org/it4dev/stories/malaysia.html>].

Coupled with these initiatives are publications that will extend our understanding and application of C&IT (Weller, 2002, Naidu, 2003, Jochems et al, 2004, Juwah, 2006, Conole and Oliver, 2007).

A QUALITY LEARNING EXPERIENCE

The quality of learning and teaching is an issue that permeates all institutions of higher education and is one that the International Network for Quality Assurance Agencies in Higher Education [<http://www.inqaahe.org>] seeks to address. It is a body that includes over 65 countries. The Quality Assurance 'Guidelines of Good Practice', agreed by the General Assembly in Wellington, New

Zealand in April 2005 [see

<http://www.inqaahe.org/docs/GG%20printing.doc>], offers constructive advice and examples of sources of evidence.

Other published documents, such as those from the UK Quality Assurance Agency (UK QAA) (Quality Assurance Agency, 2000, 2000a) also offer detailed guidelines to assure the quality of the teaching materials assembled. The most recent Code of Practice from the UK QAA (Quality Assurance Agency, 2004) complements previous guidelines and is intended to be neither prescriptive nor exhaustive; its purpose is to offer a framework within which Quality Assurance can be monitored and achieved.

The advice that these published sources offer is excellent and is commended to the reader. However, within the context of constructive criticism, the UK QAA Code of Practice will be briefly reviewed and several aspects that receive little or less than full attention will be identified. Readers are invited to consider parallels within their own Codes of Practice / Quality Assurance Guidelines. Building upon the best practice illustrated could enhance the quality of the learning experience we provide to our students. It could ensure that the investment made by government, private providers . . . parents and learners provide optimum returns.

UK QUALITY ASSURANCE AGENCY PRECEPTS WITHIN THE CODE OF PRACTICE. PRECEPTS B1 AND B2: DELIVERY OF MATERIALS

The UK Quality Assurance Agency Draft Code of Practice (Quality Assurance Agency 2004) identifies nine Precepts – associated with three aspects of Flexible Learning. Precepts B1 and B2 are associated with the 'Delivery of materials'. These two precepts note the responsibility of the host institution in terms of course delivery; the need to describe course components accurately, specify learning outcomes, describe teaching, learning and assessment methods as well as the schedule for materials delivery and course assessment. The Precepts serve to provide an administrative framework for delivery and are eminently sensible. Instituting procedures that would satisfy them will do much to improve the quality of the learning experience.

However, within the Code Precept B2 appears preoccupied with operational aspects of materials delivery – with the tracking of materials and provision of a secure and robust system. Indeed, it notes the need for alternative formats for course materials if delivery is compromised. Whilst such technical / operational matters are

important there is a danger that it may place insufficient stress on a key issue – Developmental Testing & Field Trials.

Issue 1: Developmental Testing & Field Trials

The Precepts fail to offer advice and guidance on field trials / developmentally testing the academic quality, teaching effectiveness and administrative efficiency of the materials (Zand, 1994). Whilst the mechanisms of delivery are obviously important it is the quality of the teaching material that needs to be paramount. Twenty years ago, it was demonstrated that without the testing of materials students can be subjected to inadequate learning materials that hinder / prevent learning (Henderson *et al.*, 1983). A Code of Practice which stipulates that procedures need to be instigated to trial / test materials and systems, before a course is offered to students, could do much to ensure the quality of course materials.

In this context should be the anticipatory provision for students with Special Educational Needs. Within the UK, the Special Educational Needs Act 2001 means that institutions are required to ensure those with physical and communication impairments are not further disadvantaged. Guidelines as to how teaching materials can be made accessible to communication impaired students, those who are blind or partially sighted, who are deaf, or who have other communication difficulties, needs to be identified as part of the Code. Indeed, it is likely that attention to such quality control factors could enhance the accessibility of these materials for all students.

- Do you trial actual teaching materials, with real students, under real conditions before learners are subjected to them?
- Are all administrative and clerical systems trialled before students commence their course of study?
- Do you test the arrangements and procedures associated with tutor support before tutors are allocated to groups?

Precepts B3 to B6: Learner Support

Precepts B3 to B6 note the need for students to be aware of the expectation that the institution has of them as independent learners – of the independent and collaborative learning upon which they will be engaged and the time commitment involved. They note the need to provide information and contact details for those providing learner support - an identified contact person who can offer constructive feedback on academic performance and guidance on student

progression. The Precepts also note the need to provide opportunities for inter-learner discussion and to obtain feedback on their experience of the programme as well as the skills that support staff possess and the briefing and training they receive.

The provision of course documentation, at the time of initial orientation or induction to the course, would be an obvious time to convey this information and sensitize learners to issues associated with learner support. However, the Precepts fail to adequately address student's preparedness for study, the importance of presenting materials that equate to a realistic workload (how student workload can be estimated) and how staff should be prepared for their tutor role.

Issue 2: Preparatory Materials & Courses

How do we ensure students possess the necessary skills of numeracy, literacy and information technology (IT) at the time they commence their course? If learners do not possess these skills any remedial action, alongside the course being studied, could place such learners at risk. The provision of diagnostic and developmental materials for numeracy and literacy are readily available and are often distributed to learners before they commence their course of study; the materials and advice provided by the University of South Australia are typical

[<http://www.unisanet.unisa.edu.au/learningconnection/student/prepare/default.asp>]. In addition to the internal IT courses that institutions offer to both staff and students, independent organisations have developed transferable IT qualifications such as the European Computer Driving Licence (ICDL) (see <http://icdl.co.uk>). This self-instructional package, available online, on CD and in paper format provide the basic IT skills a learner would need to exploit C&IT.

- Do you provide diagnostic material by which learners can assess their preparedness for study?
- Do you provide materials to rectify any deficiencies associated with literary, numeracy and / or Information Technology skills?
- Do you collect any evidence to demonstrate the need for such materials and their effectiveness?

Issue 3: Workload & Readability

Institutions enter a contract with learners; institutions provided materials, teaching, advice and assistance, learners study in the manner suggested and commit the time suggested.

However, when the learning resources presented grossly surpass the estimated study time required failure and drop out are common. Indeed, it is not unusual for actual study time for a course to be several times greater than the time publicized. Elsewhere (Lockwood, 1998) the study time for course material was shown to be four to five times that published in the course prospectus!

In terms of student workload, evidence has been presented as to how the study time associated with similar credit weighted courses may be significantly different. Indeed, researchers (Macdonald-Ross and Scott, 1995, 1995a) using a Cloze Test to assess readability demonstrated that even an institution like the UK Open University has pitched teaching materials at too difficult a level with the sheer volume of some course materials being excessive. Others, (Chambers, 1994, Lockwood, 1998) have indicated how it is possible to estimate learner workload and have revealed the implications of over length material. Indeed, it has been suggested that over length material is not only counter productive but is likely to be a major factor in student drop out / withdrawal (Lockwood, 1998). Simple tools are available, such as the Flesch Reading Ease Score, that enable course designers to calculate the readability of materials and to do this online. Furthermore, relatively minor editing to these online materials can readily reveal how changes in readability can be achieved – for the benefit of both teacher and learner.

- Do you determine the reading ability of your learners?
- Do you monitor the readability of the materials you provide for study?
- Do you estimate the workload of the materials that constitute the programme of study?

Issue 4: Tutor Briefing & Training

The main asset of a university or college is not the buildings and equipment – it is the staff. Just as no one would consider buying a motor car and expecting it to run indefinitely without fuel, oil and routine maintenance, no one should expect academic staff to perform to their best, and enhance the quality of learning and teaching, without ongoing investment in their professional development. However, creating time in a busy teaching, research and administrative schedule for staff to engage in Continuing Professional Development (CPD), funding and recognising the importance of these activities, is essential.

Within the UK the Higher Education Funding Council for England provides universities with

designated funds for CPD.

[http://www.hefce.ac.uk/pubs/hefce/2006/06_11]

. It coordinates such allocations and report on how they are being used. With the support from this funding my own university, for example, offers all staff, academic and support staff, an Academic and Professional Development programme starting with 'Letters of Completion' for isolated elements, to Certificates, Diplomas and even a Masters degree in CPD

[<http://www.celt.mmu.ac.uk/apd/index.php>].

What programme of CPD is offered to you and your colleagues? Are you in danger of relying on the 'pedagogic fuel' you were given many years ago to take you down the learning and teaching road?

- In what ways do you invest in your course tutors?
- Do your tutors complete an appropriate training programme?
- What evidence is collected on tutor effectiveness?

Issue 5: Programme Evaluation & Review

Precept B5 proposes that learners have an identified contact person who can provide constructive feedback on academic performance and guidance on student progression, opportunities for inter-learner discussion and provision of feedback on their experience of the programme. These proposals are to be welcomed. However, in the context of this feedback two issues emerge. The first is associated with the nature of the feedback that will be collected, the second to what actions will be undertaken as a result. In a recent book (Simpson, 2003) it is noted that amongst UK Open University students a substantial proportion of those who enquire about study with the university subsequently fail to register. Amongst those who did register about 18% failed to submit the first assignment with typically 30% failing to complete the first year. Obviously, any instrument that is administered at the end of the first year of study will fail to capture the evidence of this key group of learners. It is noteworthy that the National Student Survey in the UK, piloted in early 2005, (HEFCE, 2006) will adopt a single rather than multiple survey points. Many institutions, like MMU, are considering supplementing this data with other surveys at critical points in the student life cycle. The need to survey those who fail to progress, these key informants, is vital and may provide information that can be acted upon and shared with all learners (Brennan and Williams, 2004). Indeed, providing summaries of information provided by learners, and the actions resulting from it are not only good practice but is likely to increase response rates.

- What 'routine' procedures or mechanisms are in place to evaluate all aspects of the programme across the student life cycle?
- How reliable and valid are the methods of data collection from learners and key stakeholders?
- How are the findings communicated to learners and stake holders and acted upon?

Precept B7 and B8: Assessment of Students

The criteria against which students are to be assessed, the weighting of constituent parts, and the importance of formative assessment and expectation regarding summative assessment are important elements within the Code of Practice. Comments associated with the Precepts relate to the importance of robust and secure systems, of the tracking of assignments, the briefing of external examiners and authentication of student work. These are all important aspects of student assessment. However, the cost of providing learning materials and the systems that support them is not fully addressed.

Issue 6: Costs & Economics

It is not unusual for enthusiasts within institutions to devote substantial amounts of time and resources to the creation of 3rd or 4th Generation Flexible Learning courses (Moore and Kearsley, 1996) for small cohorts of students. However, is the production and delivery of the course, module or unit cost effective? Do student numbers in each presentation, and the number of presentations before revision, make the required investment worthwhile? Would it be more cost effective to buy in a course, direct students elsewhere or work in partnership with other organisations to achieve economies of scale? Have the costs and economics of materials and system production for the institution, and the students, been identified and reconciled (Rumble, 1997, Hulsmann, 2000).

It is noteworthy that a recent UK National Report from the Inspectorate (Further Education Funding Council, 2000) noted:

Colleges do not know the costs of distance learning because these are rarely disaggregated. Little or no account is often taken of the 'hidden' staff costs in producing learning materials. Notional allocations of tutors' time in making contact with students is sometimes substantially exceeding in practice. At the moment, it is impossible for most colleges

to engage in any meaningful cost-benefit analysis.

(Further Education Funding Council, 2000 p. 14)

Consideration of the cost effectiveness of Flexible Learning is not a feature of the recently published QAA Code of practice for the assurance of academic quality and standards in higher education – perhaps it should be.

- Are the 'overhead costs' of administrative, clerical, academic and support costs known?
- Is a detailed lifetime costing of the programme, and its constituent elements, presented prior to embarking upon production?
- Are the critical costing points in relation to staff costs, student numbers and infrastructure required to maintain the programme known prior to the outset?

CONCLUDING COMMENT

The challenge of increasing access to potential learners will not be achieved by trying to scale-up current, conventional provision. The success of Open Schools (Bradley, 2003), and teaching online (Weller, 2002, Juwah, 2006, Jochems et al, 2004) indicates that we can teach differently and has demonstrated that learners can achieve the required learning outcomes. Indeed, conventional institutions are increasingly becoming flexible learning institutions. However, financial resources are limited. Whilst the most expensive component in any educational enterprise remains the teacher, the most appropriate use of resources can make the difference between success and failure. In this context it is worth recalling the prophecy of Tony Bates in his book *Technology, Open Learning and Distance Learning*, published over ten years ago, Tony Bates stated:

... those countries that harness the power of multimedia communications for education and training purposes will be the economic powerhouses of the twenty-first century.

(Bates, 1995, p. 249)

Tony Bates was right, since his comments C&IT have become central to operations within education, industry, commerce and the public services. Within education the impact of mobile learning increases rapidly (Metcalf, 2006, Keegan, 2008).

The Code of Practice published by the UK Quality Assurance Agency, and similar documents published by others, are sound documents and the comments above should not be regarded as major criticism of the UK QAA –

but rather suggestions on how the ongoing process by which standards and guidelines can be enhanced.

However, the process of Quality Assurance is the responsibility of all of us. As such you are invited to consider your own Code of Practice or institutional Quality Assurance Manual to ensure quality materials are presented to your students. The real challenge is to ensure every learner achieves their potential.

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THE PRECARIOUS POSITION OF NURSING EDUCATION IN THE KNOWLEDGE ECONOMY: A LITERATURE REVIEW AND COMMENTARY

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ABSTRACT

Nursing is a practice-based discipline, a recent profession to transfer its workforce preparation to the higher education sector. This discussion paper explores the perceptions of key stakeholders as to what nursing is and what nurses do, and how nurses are best educated to meet all stakeholders' unique needs.

KEYWORDS

Nursing, higher education, knowledge economy, communities of practice, leadership

INTRODUCTION

Precarious: 'To be dependent on circumstances beyond one's control; not stable or secure' Macquarie Dictionary (2005)

To describe nursing's position in the knowledge economy so boldly is to alert the reader to the position of nursing education within the rapidly globalising, knowledge driven economy and to the need for nursing to value its contribution. The sentiments expressed in the paper apply equally to other practice disciplines.

Nursing is a latecomer to the higher education sector in Australia with the transfer of registered nurse education from workplace apprenticeship training to graduate level studies throughout the 1980's. This shift met with considerable resistance from within the nursing profession itself, from other health professionals, from consumers and the community. A university trained educated nurse did not seem to fit with the traditional image of what nurses were and what they did (Liaschenko 2002; Takase, Kershaw and Burt 2001).

The primary driver for the education change for nursing was the need to improve the professionalism of the discipline. It was viewed as an opportunity to expand the knowledge platform from which practice develops and to facilitate a curriculum that promised improved critical thinking and problem solving capabilities of the nursing workforce as care delivery became more complex (Purkis and Bjorndottier 2006; Hardy, Drury, Frotjold, Brown and Croswell 2003). The role of a registered nurse is multifaceted and the level of ability and depth of knowledge required by a registered nurse to competently care for clients of varying acuity, with a broad range of health care needs, and from diverse backgrounds, is often misunderstood by anyone other than nurses themselves (Bonner

2007; Billay, Myrick, Luhanga and Yonge 2007; Purkis and Bjorndottir 2006; Hallam 2002).

The overall impetus to support improved education opportunities for nurses was, as it is now, to be better able to prepare nurses for the roles they are required to undertake for the public good. The paper explores responses to the changes in the way nurses are educated in the context of a contemporary health care delivery system that is constrained by limited resources. It describes the attitudes of stakeholders that create tension within the profession and have the potential to undermine the progress made to date. The paper considers the role of professional lifelong learning by advocating for the initiation and development of communities of interest, communities of practice and communities of purpose that contribute to the leadership capacity of the nursing profession and enable it to compete for recognition in relation to productivity based disciplines. It challenges the nursing profession to adopt a clear position in the knowledge driven economy or risk being ignored as having a valuable part to play in the growth of contemporary Australian society.

Defining nursing knowledge

Nursing knowledge extends across two knowledge spaces. According to Parker (1997), one space is

"the decontextualised space of evidence-based practice and the other is the personalised space of the patient" (p.16)

It is the combination of the two spaces that provide a different care delivery context for every individual. The spaces are absolutely superimposed over one another; in that, anything that occurs in one space affects the alternate space equally.

Purkis and Bjorndottier (2006) suggest that evidence based practice is founded in scientific research, logic, clinical reasoning, and is the result of education and the availability of reliable sources of information. This is predominantly information that is widely disseminated through

clinical reports, in academic journals or held in validated clinical evidence repositories to assist clinical decision making by all health professionals. The decontextualised dimension of nursing practice houses the appropriate skill sets for the safe performance of clinical procedures and routine care management. The elements necessary for performance at this level can be learned through formal education preparation.

Evidence based practice clinical decision making is further enhanced by tacit knowledge and intuition that result from clinical experience. The importance of these elements is not only acknowledged in the education of health providers (Sackett, Straus, Richardson, Rosenberg and Haynes 2000; Jennings and Loan 2001; Kim 1999) but it has become the basis for reflective learning in curricula for many practice disciplines. Kim (1999) refers to this phenomena as 'critical reflective inquiry', Purkis and Bjorndottir (2006) describe it as 'intelligent nursing', Billay et al. (2007) use the phrase 'intuitive knowledge' and Myrick (2005) coins the phrase 'intellectual curiosity' embodying the spirit of inquiry.

Billay et al. (2007) cites Benner, Tanner and Chesla (1992) and findings from a research study of 105 intensive care (ICU) nurses at different stages of expertise that found that nurses with more than 5 years experience in the ICU context relied heavily on intuitive judgement. They responded to patient problems more quickly, more appropriately and with higher levels of confidence, 'without wasting precious time contemplating other possibilities' (p.154).

Hanley and Fenton (2007) suggest that 'creative care' is the result of expert nursing practice that is characterised by improvised response when 'routine or standardised care is not applicable and the solution demands creative, perhaps intuitive, often never used before solutions' (p.126). Much of this nursing work is invisible to the patient, to other health professionals and to the organisation.

The second knowledge space is that of 'the personal space of the patient' (Purkis and Bjorndottir 2006 p.250). Working as a professional within this space requires another specialised set of skills entirely. The patient's personalised space is created from the nurse's interpretation of the patients 'circumstances of daily living' and is only as good as the value it may hold in relation to the client's health beliefs, behaviours and perceptions. Appropriate nursing response to client care needs must reflect client expectations and preferences. This is a function

of the insight into the patient's personal space that is elicited by the nurse at interview and from recurrent inter-personal contact. According to Purkis and Bjorndottir (2006) the skill set required in this knowledge space includes communication skills, empathy, authenticity, respect for others, mutuality and openness. Liaschenko (2002) reminds us that these social transactions and emotional work is also invisible. The counter-argument to this construct is that nurses all too often assume that they know what is best for the patient using evidence based practice as a guide for interventions. The dilemma for post-modern nursing is to balance the science with the art.

Measuring the value of nursing knowledge

'In the new knowledge based economy, individuals and firms must focus on maintaining and enhancing their biggest asset; their knowledge capital.' (Burton-Jones 2001, p.225)

Assuming that the above statement is true, nursing is in a strong position to claim that it contributes value to society. Nursing provides a unique service and its' value is embodied in its' knowledge workers. Perhaps, however, nursing as a profession does not understand the strong bargaining position it has in being recognised as contributing to productivity. Again, this suggests that much of nursing work is invisible. For example, if productivity is measured in outcomes and dollar values, then any lost workday is lost production, and nursing can reduce lost production. But surely, nursing is more valuable than that.

According to Shorten (2006), knowledge workers account for nearly 40 percent of the Australian workforce. This is an upward trend. Shorten argues that knowledge workers lead innovation in production and process and that service industry employees contribute by providing system support within which 'innovators' perform. Clarke (2001) explains that knowledge workers that offer support expertise (such as nurses) must first recognise that they do so and understand the role that they play or they may be overlooked. Once they have recognised their contribution they must manage their knowledge contribution by developing a comprehensive knowledge strategy at the professional level. He suggests communities of interest, communities of practice and communities of purpose in education and research to promote creativity and innovation (Lave and Wenger, 1991; Wenger 2000).

Communities of practice are identified as the means for the transference of information or

knowledge between disciplines to enhance the overall quality and evidence base for quality outcomes (Lesser and Storck 2001; Davis, Evans, Jadad, Perrier, Rath, Ryan, Sibbald, Straus, Rappolt, Wowk and Zwarenstein 2003; Noles 2000; Smith 2000; Wenger 1998; Murchú and Korsgaard-Sorenson 2004). Communities of practice promote joint problem solving and consensus in the decision making that underpins effective practice change, particularly in health care. Nurses belong to communities of practice within their own discipline (Hara and Hew 2006) but are only occasionally heard as part of the multi-disciplinary health care team, if at all (Conner 2005; Pakenham-Walsh 2007; Lathlean and LeMay 2002).

Nursing, at best, offers unique expertise, that should be encouraged and protected by organisations in hostile economic conditions. The nursing profession itself needs to agitate for increased recognition and together with the higher education sector needs to empower the nursing academics that impart nursing knowledge and expertise to students. Freshwater (2004) calls for nurse leaders to act and to strategically locate nursing in the global knowledge economy. She argues that nursing influences society's well-being at the highest level and that service professions are the ones that have the potential to direct cultural and social change that create participatory social policy. This may be the true value of these professions. She does qualify her argument by challenging professional leaders to make a difference or social values are likely to be diminished overall.

By comparison, teaching takes a strong position as it sees itself responsible for the development of the future workforce (Hargreaves 2004) and more. Hargreaves argues that teachers also have a responsibility to influence social policy in an effort to offset some of the negatives of the knowledge economy. As well as educating young people in readiness for their engagement with the knowledge economy, he cautions:

'Along with other public institutions, our schools must therefore also foster the compassion, community and cosmopolitan identity that will offset the knowledge economy's most destructive effects. The knowledge economy primarily serves the private good. The knowledge society also encompasses the public good. Our schools have to prepare young people for both of them'. (p.11)

It appears that teaching understands its' value in the knowledge economy. If, in the case of nursing, its knowledge and contribution is hidden

and it has not adopted a clear stance in relation to its' value, then it needs to make sure it is, at least, noticed. Social action is one way to be noticed and is available to all who choose to act.

The pressures on nursing in the knowledge economy

What do academics say?

Wood (2003) makes no excuses for the poor performance of the Australian higher education sector in relation to other developed countries, as we continue to lose our 'best brains' overseas. He argues that the situation is driven by poor vision from Canberra that retains a focus on primary industry and raw materials. He identifies that there are problems with adequate resourcing of the higher education sector with declines in total funding that have resulted in reduced academic salaries, significant drops in domestic student numbers and poor retention rates of over 15 year olds at both the secondary school and tertiary levels. His account of the current situation is not encouraging in light of the push to embrace the global knowledge economy.

In parallel with the contraction of funds available for the higher education sector overall, enrolments in the service professions are reducing. According to the Association of Professional Engineers, Scientists and Managers Australia (2007) university enrolments in teaching decreased by 12% and in nursing by 24% during the period between 2001 and 2005. The prospect of guaranteed employment, particularly in the areas of health and welfare, seems to have had no effect on these trends. Resources have been significantly reduced in all areas of education and academics cite this as negatively affecting their ability to provide quality programs. When nursing academics are struggling to provide the foundational knowledge to support beginning level practice it is unlikely that they will be able to effectively develop in their students that 'spirit of inquiry' that Myrick (2005) suggests is a key element to nursing's survival.

What do nurses and nursing students say?

First year undergraduate nursing students want to care for the sick and to help people (Liaschenko 2002; Cook, Gilmer and Bess 2003; Erikson, Holm, Chelminak and Ditomassi 2005; Whitehead, Mason and Ellis 2007). Given the global shortage of nurses, the reality for the new nurse is likely to be much more administrative and less 'hands-on'. Liaschenko (2002) states that nurses 'profoundly resent' the shift away from bedside care. Reality shock is a primary cause of attrition from the nursing workforce in the first year following registration (Cowin and

Hengst-Berger Sims 2006). Nursing curricula respond by devoting entire subjects to the management of reality shock (Smithers and Bircumshaw, 1988). Nurses say they do not feel valued by employers. There are such dire shortages that overtime and double shifts have become the norm and the nurses' life-work balance is being compromised. Individual workers and their families are suffering. In these conditions, the personal values of the nurse are under threat and the social values held by the community that, at least, recognize the nurse's commitment to helping other humans have been diluted to accommodate the needs of administrative structures and systems.

Registered nurses continue to leave the profession in droves (Blakely and Ribeiro 2008). The workforce pressures of fifteen years ago are worse today. Models of care have changed to adjust to reduced availability of registered nurses (Fowler, Hardy and Howarth 2006). It is argued that replacing registered nurses with second level health professionals in all care delivery settings is long overdue just to ensure that some care is delivered. The consequence of this change in the aged care sector is that health outcomes and quality of care are diminished (Jackson, Mannix and Daly 2003). Apparently, the community is ready to accept these changes but nurses should not and this situation presents as an opportunity for the nursing profession to affect a positive social change.

Historically, nurses have allowed themselves to be undervalued by employees by accepting poor working conditions and low pay (National Review of Nursing Education 2002). There have been recent moves in all states and at the Federal level to significantly increase wages (hourly rates) in an effort to bolster retention rates and to attract retired nurses back to the workplace. For example, in 2006 the Queensland Health services nurses received a 15% increase in wages (over three years), one-off bonuses and additional funding for professional development as incentives to stay in practice (QHealth 2008). Unfortunately, it may have been a case of 'too little - too late' as many nurses were already exhausted from coping with chronic understaffing for over ten years and chose to reduce their availability for shifts using the increased wages to compensate for the hours of work lost. Given the gravity of the workforce situation, it is doubtful that nurses will have the capacity to do any more than cover the minimum shifts required in hospitals. They will not want to lead procedural and policy change, let alone have the energy to experiment with innovative improvements in patient care.

Nursing is not as attractive to school leavers as it has been in the past. The drawbacks include shift work, the image of nursing as 'dirty work' (Liaschenko 2002), of nursing as second rate work (Hallam 2002), women's work (Whitehead et al. 2007), the risk of injury (Hess 2005) and limited career paths. Skilled generation X workers are fast, mobile and in demand (Bogdanowicz and Bailey 2002). They are interested in committing to themselves as knowledge workers rather than committing to any organisation or even to a single career in one discipline. According to Harari (1998) generation X'ers:

'value self-advancement over corporate advancement. They view their human capital as personal, not corporate assets' (p.128)

This is just as the knowledge economy would have them do. In their defence, generation X appear to have a higher level of loyalty to people they work with rather than to the organisation that they work for (Mensik 2007) and can be retained and nurtured with effective management.

The skill set that a registered nurse develops over time, covering the 'spaces' of evidence based practice and the personalised space of the patient, equips them for diverse future employment opportunities in positions ranging from pure science to the coordination of high quality customer care and, most advantageously, the effective management of service delivery to individuals, groups and communities. This humanist expertise is incalculable in any job that contributes service to society.

Fortunately, many students do engage with nursing for all the 'right' reasons: caring for people, healing the sick, helping people (Cook et al. 2003; Whitehead et al. 2007). These caring attributes are fundamental for the development of competency in the personalised space of the patient (Raholm 2008). The patient outcomes that are facilitated as a result of caring nurses are clearly the product of the nursing profession. As yet, this product is not quantifiable.

What does industry say?

Workforce is the highest cost for employers in health care (Duckett 2007). In the past, changes to models of care delivery have followed a cost-cutting agenda. With the critical shortage of nurses now the cost becomes less important as the skill shortage impacts on service capability. The requirement of industry from the higher education sector is more nurses – quicker – better. The productivity pressures on health care are also changing (Duckett 2007; Productivity

Commission 2005) with increased patient acuity, resource constraints, throughput and performance standards, bed-day funding models and severe workforce shortages in all areas of operation. Industry understands that it needs to provide incentives to retain experienced nursing staff. Much of the published literature explores the needs of nurses and concludes that conditions of employment such as wages, flexibility of shifts, availability of family leave (Editorial ANJ 2007; Fitzgerald 2007; Hogan 2007) will influence retention rates and they have acted to provide these workplace conditions. And yet nurses continue to leave.

Despite strategies that foster retention of new and existing care professionals, many health organisations are in crisis. Industry hard times are reflected in the internal work culture of the facility (Anderson and Pulich 2001). Nurses cite organizational culture as a primary reason for 'burn-out', absenteeism, extended leave and, finally, resignation from the workforce entirely (Myers and Dreachslin 2006). Other studies reveal that nurses are under degrees of stress that permeate their commitment to the profession by undermining their ability to provide the quality care that they feel they need to deliver (Nogueras 2006).

The exodus of experienced nurses from the workforce has a negative impact on the knowledge reserve. Industry needs to be mindful that the intellectual capital they have accrued in the expertise of their employees is only of 'real' value to them when it is reflected in health care systems and policies (Kerfoot 2002). Nurses must, therefore, be empowered within systems to influence policy.

Industry provides an environment that threatens nursing professionals and restricts their capability to be innovative. Yet, innovation is considered to be integral in the role of the nurse (Freshwater 2004; Snyder-Halpern, Corcoran-Perry and Narayan 2001). This is demonstrated in their ability to adapt systems and procedures to meet the unique needs of the client. These are the needs that infiltrate the patient's personalized space described previously as a fundamental knowledge space for the nurse (Purkis and Bjornsdottir 2006 p.250). Bonner (2007) states this as simply 'knowing the patient'. If the ability to personalize care is restricted then it follows that patient outcomes are reduced. Similarly, if time does not permit the implementation of evidence-based best practice then patient outcomes are also diminished (Purkis and Bjornsdottier 2006; Myrick 2005; Jennings and Loan 2001)

Industry would claim that its' hands are tied, that there are not enough registered nurses to deliver the best possible care with a predicted shortfall in Australia of, in excess of, 40,000 by 2020 (Karmel and Li 2002). Industry argues that it is the responsibility of the higher education sector to produce more nurses who can 'hit the ground running'. They also make claim that 'industry is student ready' despite the chronic shortage of experienced nurses to mentor new nursing graduates. Effective mentoring is the learning space in which practice consolidation occurs in conjunction with knowledge transfer from the expert to the novice (Benner, 1984; Billay et al. 2007) and is critical in the retention of nurses in the first few years of practice. The precarious nature of the nursing profession becomes a reality at this point.

What do consumers say?

A common 'catch cry' from this quarter is that:

'The training of nurses must come back to the hospitals where they (the trainees) would receive the maximum practical experience. This would put more nurses back into the hospitals immediately' (CWA NSW 2001)

The call is for more nursing time at the bedside. The consumer perspective seems to focus on immediate personalised need for something other than evidence based practice and reflects the value that consumers (and society) place on nurses being there to care for them when they or their loved ones are ill. In fact, consumers appreciate that when all that can be done has been done from an evidence based perspective then it is the nurse to whom they can turn for support. End of life care is a special caring space that is, almost exclusively, the privilege of palliative care nurses (LaPorte and Sherman 2005).

It is the caring side of nursing that most engages the consumer. They are the ones who, perhaps, least understand the complexity of the contemporary nursing role and who attribute the more traditional caring function to nurses at the exclusion of other aspects (Walker 2002). Ironically, consumers are the first to acknowledge that 'if it hadn't been for the nursing staff' important medical needs of the patient may have been missed or overlooked by other professionals. This is shaky ground in relation to the evidence based practice health care environment that centres on knowledge when that knowledge is shared across professional disciplines.

Nursing is not credited with the extensive knowledge base that it has and this lack of understanding underpins the consumers' conviction that the transfer of registered nurse education to the higher education sector was a mistake (CWA NSW 2001). This attitude contributes to the pressure on both the nursing profession to justify its unique contribution to health care and to nurses personally, as it devalues their expertise in the delivery of high quality evidence based patient care. Patient perceptions are within the scope of influence of the nursing profession. The Oncology Nursing Society suggest that nurses should use every patient encounter as an opportunity to inform the patients that nurses are committed to evidence based practice and are directly responsible for the high quality care that the patient receives (ONS News 2006).

OPPORTUNITIES FOR DISCIPLINE LEADERS

'The key to nursing's survival in a knowledge economy is nurse educators' abilities to cultivate a spirit of inquiry in nursing programs.' (Myrick 2005, p.5)

And so the task, rightfully, falls to nursing academics to lead the way in establishing a strong position for the nursing profession in the knowledge economy. By extension, universities are charged with the recruitment and development of nursing academics that have the drive and capacity to demonstrate leadership in the critical areas of quality teaching, in developing opportunities to transform the way nursing care is delivered without losing the 'art' of the profession. Academics must instil in the graduate the motivation and political awareness that enables them to influence health care practice and policy.

Successful leadership in the clinical area is also fundamental to maximizing the capital held in the collective knowledge of the nursing workforce. Nurse leaders must provide the culture that promotes the sharing of expertise throughout the organization and allows theory to convert to practice changes that improve patient outcomes. The environment must be open to trial new procedures and practices that are supported by the latest evidence as well as encouraging improvisation by nurses in circumstances that are exceptional. Knowledge management adds a new dimension to the nurse leaders' role.

Bogdanowicz and Bailey (2002) send a clear message to leaders that until knowledge 'is acted upon, it has no real value' (p.126). Clarke (2001) suggests leaders should develop comprehensive knowledge management strategies with a focus

on what he refers to as 'communities of interest', 'communities of purpose' and 'communities of practice' that support creativity and innovation.

Communities of practice are emerging as the panacea for busy professionals who must engage in life-long learning. Communities are informal learning spaces that provide opportunity for discourse and learning by mutual engagement in professional activities (Lave and Wenger in Smith 2003). Wenger argues that communities of practice will define themselves by determining their unique function, capability, purpose, and life expectancy. Some communities will be informal while other will be more formal with some rules of engagement, but all must have ongoing interaction between the members to be effective.

The key difference between communities of practice and interest groups is that the community consists of stakeholders from diverse backgrounds who interact in the practice environment and who collaboratively develop new practice knowledge and innovative practice methods to address common issues. Members of the community of practice then champion the improved practice across the disciplines which leads to behaviour change at all levels and influences organisational effectiveness and profitability (Lesser and Storck 2001). Unlike a community of purpose it will not disband after completion of a task or project (Noles 2000).

Lathlean and LeMay (2002) describe the push towards communities of practice in health care in the United Kingdom that improve interagency collaboration that affects local health service delivery. They argue that communities of practice are effective in developing the evidence base for practice change as they encourage transdisciplinary activity and facilitate multi-professional decision making. Strategies such as these will require an overhaul of current clinical practice environments and systems.

The nursing profession stands poised on the brink of reformation from simply knowledge based to a knowledge sharing discipline. The framework for nursing to reaffirm itself as a unique contributor is at hand with the current global trend towards the knowledge economy, but nurse leaders must capitalize on the moment.

Nursing academics will be key contributors through the development of nurse leaders who can transform nursing practice by inspiring others and by providing environments that challenge the 'status quo'. Nurses should aim not only to make a difference to the patient in

care but also to influence social policy. If nursing work cannot be valued, there is a real risk that the light from Nightingale's lamp will be permanently snuffed out and society will be a poorer place as the bearers of the 'caring knowledge' perish. If the profession is to make a valid claim for not only recognition but appreciation, then the work that nurses do must no longer remain invisible.

CONCLUSION

Nursing knowledge can be defined as extending across two knowledge spaces described as the space of evidence-based practice and the personalised space of the patient. The nature of these knowledge spaces enables the profession to claim unique knowledge capital. Nursing provides a service, the value of which is embodied in its' knowledge workers. Economic pressures on the health care industry are shifting nurses away from bedside care. Nurses resent this shift and say they do not feel valued by employers. The patient outcomes that are facilitated as a result of caring nurses are clearly the product of the nursing profession. The position of nursing is heavily influenced by the perceptions of the role of nurses held by employers and consumers of health care services. The nursing profession itself needs to agitate for increased recognition and together with the higher education sector needs to empower nursing academics to cultivate a spirit of inquiry in nursing programs. Nurses must actively engage with communities of practice to ensure they maintain a legitimate place in the framework for learning and practice innovation and to feature in the global knowledge economy

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FRAMING THE FUTURE OF FET: STUDENT ENGAGEMENT, QUALITY ASSURANCE AND LIFELONG LEARNING IN FURTHER EDUCATION AND TRAINING TEACHER EDUCATION PROGRAMS

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ABSTRACT

This paper interrogates options in redesigning the further education and training teacher education programs at the University of Southern Queensland in relation to student engagement as influencing quality assurance. Critical understandings of lifelong learning are proposed for framing FET futures that maximise student engagement and quality assurance in the programs.

KEYWORDS

further education and training – quality assurance
– student engagement – teacher education –
University of Southern Queensland

INTRODUCTION

This paper is one of a series (see also Arden, Danaher & Tyler, 2005; Danaher, Tyler & Arden, 2007; Tyler, Arden & Danaher, 2006) interrogating options in redesigning the further education and training (FET) teacher education programs at the University of Southern Queensland (USQ), Australia. The common denominator in the series has been an ongoing struggle to negotiate among multiple and often competing pressures on those programs while pursuing possibilities for creating alternative, resistant and hopefully transformative futures for FET learners and educators alike, which is crucial if they and others are to drive maximum benefits from those programs.

The purpose of this paper is to accept the challenge articulated by Coates (2005) for Australian universities to focus directly on student engagement indicators as potential influences on the assurance of quality in higher education (see also Coates, this volume). The authors take particularly seriously Coates's contention that mechanisms currently employed to determine the quality of Australian higher education provision fail to take account of student engagement "with the kinds of practices that are likely to generate productive learning" as well as the extent to which institutions "are providing the kinds of conditions that... seem likely to stimulate such engagement" (p. 35), and take up his call for a "more holistic understanding of the student experience" that emphasises the "direct educational benefits of beyond-class experiences" (p. 29).

This challenge has particular resonances with FET curriculum, which is focused on distance and online education for adult learners. The people who enrol in these FET programs are adult learners seeking a change in their vocation. They have chosen teaching or training as the focal point in their vocational repositioning. They bring with them prior learning from past professions or trades and enrol in either USQ's Bachelor of Further Education and Training or Bachelor of Education (Further Education and Training) degrees, the latter being a course whose pathway leads to teacher registration in Queensland. These programs are delivered within the context of lifelong learning in ways that are often marginalised in comparison with traditional, campus-based teacher education programs (Harreveld & Danaher, 2004). In an attempt to address the challenge of finding ways to maximise student engagement and quality assurance that simultaneously take account of these context specific characteristics and articulate with faculty - and university - wide discourses and practices, the paper deploys a variation on the vision for student engagement and quality assurance propounded by Coates (2005) that is informed by critical understandings of lifelong learning and quality assurance in higher education as conceptual resources for revisioning the FET teacher education programs at the authors' university. This discussion is important if the programs are to fulfil their potential for enhancing the lifelong learning opportunities of stakeholders in those programs.

CONCEPTUAL FRAMEWORK

The authors have previously elaborated a model for interrogating the three key elements of leadership, quality and technology as they are envisaged and enacted in the curriculum of the USQ FET programs (Danaher, Tyler & Arden, 2007). This model is centred on the tripartite interdependence of curriculum, educators and learners and is focused on the crucial processes of making meaning, performing practice and

transforming. In relation to this paper we highlight the aspect of quality. As noted in Figure 1, the spotlight is on the vital organising

question posed by the model “How do we define and evaluate quality?”.

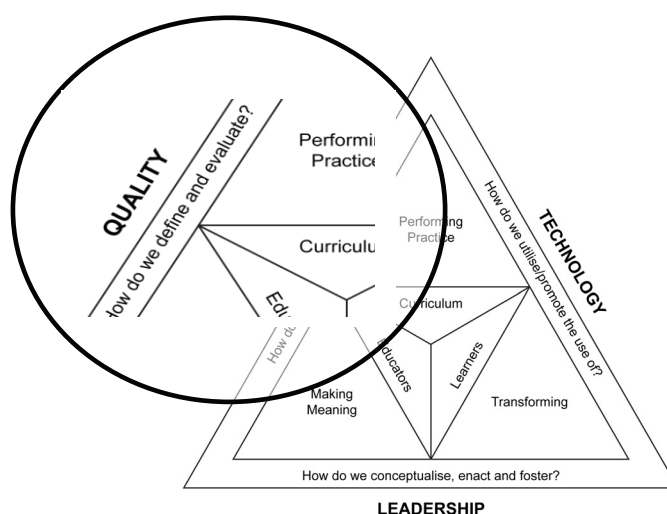


Figure 1. Spotlight on quality: Conceptual framework for interrogating curriculum leadership, quality and technology in the USQ FET programs (adapted from Danaher, Tyler & Arden, 2007, p. 81)

There are several possible approaches to defining and evaluating quality in education, including the currently dominant managerialist discourse about quality, whereby “people compete as educational consumers and producers” (Gouthro, 2002, p. 334) and various critiques of that discourse (Rowan, 2003). The emphasis placed here is on the intersection between two fundamental markers of curriculum quality: student engagement and quality assurance. For the purposes of organising this paper these markers are dealt with in separate sections; this is for ease of discussion and not meant to dilute the interdependence that exists between the two concepts.

Quality – Student Engagement

A particularly fruitful line of thinking about student engagement derives from Biggs’s (2003) argument about the need to bring into greater alignment learning objectives, teaching styles and assessment tasks and his identification of three levels of teaching as assimilating, accommodating and educating as focusing respectively on what students are, what teachers do and what students do (p. 124, as cited in Sanderson, 2006, p. 2). The third level in particular – teaching as educating and focusing on what students do – resonates strongly with highlighting and seeking to enhance student engagement in the activation and enactment of learning (and also with a commitment to curriculum quality and its assurance).

Coates (2005) posits a link between emphasising student engagement and constructivist assumptions about the sociocultural contexts of learning, learner agency (if not autonomy) and the responsibility shared by learners, their teachers and many others for the achievement of those learners. For Coates:

...student engagement is concerned with the extent to which students are engaging in a range of educational activities that research has shown [i]s likely to lead to high quality learning. Such activities might include active learning, involvement in enriching educational experiences, seeking guidance from staff or working collaboratively with other students. (p. 26)

It follows from Coates’s (2005) valuing of student engagement that he is critical of contemporary approaches to quality assurance in university learning and teaching that fail to consider, let alone privilege, such engagement. He contends that a key corollary of the absence of a national measure of student engagement is that “...there is too much emphasis on information about institutions and teaching and not enough emphasis on what students are actually doing” (p. 26), thereby linking his focus on student engagement with Biggs’s (2003) evocation of the third level of quality teaching. Coates elaborates specific processes whereby this absence can be redressed, concluding with the timely caution that “...institutions would need to develop approaches to manage and enhance student engagement without having ultimate control over students” (p. 35).

The above conceptual framework has elicited some potentially useful ideas about student engagement. These ideas can inform the task of facilitating those phenomena in the FET programs at USQ, thereby framing the programs' future as contributing substantively to students' and educators' lifelong learning. How this might be done is taken up in the next subsection of the paper.

Student engagement and the FET programs

To suggest that USQ is endeavouring to reposition itself within the increasingly market driven and competitive environment of higher education at the expense of focusing on a more liberal notion of higher education is possibly moot, yet the attention paid to student engagement appears as a particularly high priority, possibly because greater engagement means increased student retention and this fits with managerialist notions of how universities should operate. According to Scott (2005, p. v), widely ranging pressures on universities at local, national and international levels make a compelling case for "each university to optimise the quality of every student's experience in order to remain sustainable". Certainly, the concept of 'the student experience' has taken centre stage at USQ, exemplified by initiatives such as the appointment of a Dean of Students and the promotion of strategies for increasing student retention rates by the university's Learning and Teaching Support Unit.

Whatever the motives of the university, we contend that in our FET programs attention to student engagement is in sharp focus. Our challenge is to move this attention towards programmatic reality.

Krause (2005) reminds us that even though student engagement "has emerged as a cornerstone of the higher education lexicon" (p. 3) its conception is variable. Ainley (2004) notes the difference in conceptualising student engagement, which lies in the two research perspectives of the person and the situation. From a person perspective, engagement is viewed as a set of characteristics or dispositions that predispose the student to engage or disengage. From the situation perspective, the focus is upon the variables within students' contexts that either support and increase engagement or *vice versa*. As our collective perspectives are somewhat orientated towards the liberal notion of education (see Arden, Danaher & Tyler, 2005), we endeavour to 'look both ways' at student engagement, which is congruent with our claim of holism in the introduction to this paper.

Noted in many quarters are the challenges for universities as they endeavour to understand the attitudes and expectations of the Y, X and baby boomer generations. In our FET programs teaching and learning are undertaken in distance and online modalities by mature aged students (mostly from the X and baby boomer generations) who are endeavouring to reinvent themselves as teachers for the vocational education and training and secondary education sectors, and as professional trainers. What are the challenges faced by us and our students in relation to student engagement?

Krause (2005) suggests that universities have tackled the issue of engagement through an involvement paradigm: 'we just have to get them involved' appears as part of the rhetoric. This, she claims, treats engagement somewhat unproblematically and denies the lack of consistency between the online marketing of universities and "the reality of [student] experience once they are enrolled" (p. 10). What resonates with us is Krause's call for extending the concept of engagement to include the phenomenon of inertia – used by Krause to describe the tendency of some students to remain passive and/or resist being an active participant in study activity and university life – as well as an acknowledgement that engagement is a 'battleground' for some students, particularly those who are employed (Krause, Hartley, James & McInnis, 2005). For these students, "university study runs the risk of simply becoming another appointment or engagement in the daily diary..." (Krause, 2005, p. 8) or a distasteful and boring chore that must be endured for the end reward, as opposed to an enriching social learning experience. Other barriers to engagement identified in the literature that have particular relevance for FET students include battles with the 'tyranny of distance' and the digital divide (Danaher, Tyler & Arden, 2007) which can be exacerbated by the lack of connect that these X and baby boomer generations have with the technology (Joan-Dwyer & Pospisil, 2004) that is so often quoted as the saviour for distance learners. Krause suggests that we need to help students develop "'armour' to win [this] engagement battle" (p. 10).

How have we responded to this challenge thus far? What occurs in relation to student engagement in our FET programs is a proactive emphasis on establishing relationships at the beginning of the first year of enrolment through contact with the program coordinator, resulting in a personalised program of study negotiated by direct communication through face-to-face interview or over the phone and augmented by

email contact as follow-up. Once this initial contact is completed, engagement then becomes the realm of the various course coordinators. Curriculum focused attempts to deal with the issue of engagement include implementing the suggested outcomes from our 2006 FET forum (Tyler, White, Arden & Danaher, in press) in relation to embedding information technology literacies, curriculum relevance and authentic assessment. It is acknowledged that we could do more – yet the pressures of neoliberalism and managerialist notions of ‘doing more with less’ (supposed efficiency gains) and ‘sharing the pain’ of ‘budget accountability’ have resulted in a reduction in our capacity to be responsive to students’ needs. In the next section, we explore the concepts and practices of quality assurance in higher education and present possibilities for leveraging our capabilities to maximise student engagement.

Quality – Quality Assurance

Revisiting the organising question proposed by our model – *Quality: How do we define and evaluate?* – provides the starting point for an analysis of current and prospective quality assurance practices and an examination of the extent to which they can support efforts to enhance student engagement. USQ’s current policy on evaluation defines evaluation of quality as:

- the systematic consideration of stakeholders’ views and benchmarking activities about the quality of programs and the courses that comprise the programs; and
- the aggregation, analysis and interpretation of students’ feedback on their perceptions of the quality of the courses and the teaching of them, to inform judgements about program quality and relevance. (USQ, 2005, Section 7.5.1)

Quality assurance and the FET programs

In relation to the FET programs (and others at USQ) the instrument used to elicit feedback on experience of a particular course in a program from students undertaking external studies, which constitutes 100% of the FET programs’ student cohort, is the “Student Evaluation of Distance Learning and Teaching” instrument, or SEDLT, which comprises 18, seven-point Likert scale items clustered into four sections: teaching and assessment; learning outcomes; support and administration; and an “overall” satisfaction with the teaching materials used in the course. Aggregated results by semester and faculty for the last three years are posted to the university website in accordance with DEST requirements.

This is complemented by the Course Experience Questionnaire (CEQ) administered at a national level, based on the work of Ramsden and Entwistle, (1981, 1983) and Biggs (1987, 1992) (as cited in Scott, 2005), as well as a variety of benchmarking activities that contribute to the institution’s overall quality assurance and continuous quality improvement cycle.

As noted in the preceding section, the notion of student engagement has emerged as an important measure of quality in tertiary teaching and learning settings. According to Scott (2005), student engagement and student retention are closely linked, with retention being seen as an indicator of engagement, along with high levels of class attendance and participation, interaction with staff, fellow students and learning resources, providing enthusiastic and positive feedback about their course experience when asked and being willing to “spend additional ‘time on task’” (p. 1). An analysis of the above indicators of quality and student engagement reveals a strong focus on the traditional ‘on campus’ mode and transmissive approaches to teaching and learning that characterises much of the discourse about quality teaching and learning within a faculty of education. Interestingly, Scott’s (2005) meta-analysis of the “components of their university experience that students identify as most engaging them in productive learning” (p. vi) is based on data drawn from 14 Australian universities which he sees as being “generally representative of the Australian higher education sector” on variables of “size, type, mode of operation (for example, from single to multi-campus delivery); location (state, country and city) and stage of development” (p. vi). Significantly, mode of study (that is, on campus, external, web) is not mentioned, and a closer look at the list of participating universities reveals only three that could be considered to be regionally located with an external student enrolment that significantly exceeds the on campus enrolment, as is the case with our university and in particular our FET student cohort. This raises the question of how relevant established measures and indicators of quality and student engagement are for the external student cohort, and in particular FET students, and highlights the need for more inclusive and holistic definitions of student engagement and quality assurance that are more in keeping with understandings about teaching and learning that are less institution-centric and more closely aligned with critical understandings of lifelong learning.

CONCLUSION

Grace (2006) reminds us of the need to enact “a critical social pedagogy of learning and work that provides a holistic approach to engaging in lifelong learning in today’s neoliberal, pragmatic milieu” (p. 1). This paper’s account of our efforts to maximise student engagement and broadly based quality assurance in the USQ FET programs has confirmed both sides of Grace’s equation: the increasingly managerialist Australian higher education context that makes it even more important to uphold critical understandings of lifelong learning.

From the above analysis of quality assurance and student engagement in relation to the USQ FET programs, the following critical questions emerge to guide us in subsequent phases of our work:

- Challenging Scott (2005), to what extent do current measures of course and program quality in higher education – and in particular student engagement – accurately reflect the needs and circumstances of students enrolled in distance education programs at regional Australian universities?
- Following Coates (2005), what kinds of conditions are likely to enable, facilitate and stimulate the kind(s) of engagement(s) that distance learners value in their tertiary studies, and to what extent is the current operating climate of the university conducive to the provision of those conditions?
- Drawing on Krause (2005), to what extent are our conceptualisations of quality as specifically related to student engagement measures a reflection of an outdated ideology based on institution-centric expectations and conceptualisations of teaching, learning and quality assurance?

A possible way forward, then, for maximising student engagement and quality assurance in FET programs is to adopt and promote understandings of student engagement and quality that align with critical understandings of lifelong learning such as the crucial role of inequitable socioeconomic backgrounds in framing life chances and worldviews. Returning to the question posed in the model presented in our conceptual framework – *Quality: How do we define and evaluate?*, the authors propose a framework for conceptualising and evaluating quality informed by critical understandings of lifelong learning that recognises, acknowledges and challenges the contexts in which learners, educators and institutions exist and act. In doing so,

engagement is defined in terms of what the learner is doing, experiencing and achieving – that is, how learners are engaging in the curriculum in order to achieve their lifelong learning goals – as well as what the teacher is doing, experiencing and achieving – that is, how the teacher is engaging with the learner and the curriculum. *Curriculum* is conceptualised broadly and holistically as the synergy between formal and informal learning and the student’s lifeworld. *Quality* is defined in terms of the institutional and system factors that contribute both to the conditions under which educators can design and facilitate relevant, meaningful, authentic and transformative learning experiences that lead to the attainment of learners’ goals and to the conditions under which learners are expected, required, encouraged and supported to engage with these learning experiences. Educator and learner engagement is both the measure of and the requisite for quality. Institutional and system factors can serve both to support and to hinder such engagement.

As Coates (2005) has made clear, including student engagement in quality assurance policies and practices raises “complex substantive, operational and political issues which travel to the heart of ideas about university education” (p. 35). Yet pursuing those issues wholeheartedly is crucial if university students’ lifelong learning journeys are to be fully engaged and of high quality. Certainly such a wholehearted pursuit is central to framing the future of FET at USQ in ways that are individually and collectively transformative rather than institution-centric.

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A LEARNING COMMUNITY TWO YEARS ON: REFLECTING ON SUCCESSES AND FRAMING FUTURES

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ABSTRACT

This paper reports the results of a participatory action research (PAR) evaluation conducted with the members of the Granite Belt Learners Group in their rural 'learning community' in South East Queensland, and presents an action research and evaluation framework to guide the community on the next stage of its journey.

KEYWORDS

Learning communities – lifelong learning – participatory action research – evaluation

INTRODUCTION

The learning communities movement emerged during the 1970s in response to a perceived need for rural and regional communities across the western world to adapt to significant changes in the structure of their economies as a result of globalisation, the impact of technological innovations, and changing demographics (Longworth, 2006; Candy, 2002). Learning communities, cities, towns and regions "explicitly use learning as a way of promoting social cohesion, regeneration and economic development which involves all parts of the community" (Yarnit, 2000, p. 11, as cited in Kilpatrick, Barrett and Jones, 2003, p. 2). The so-called 'wider benefits' of this increased participation in learning are often defined and described in terms of enhanced human, social and economic capital as well as improved health and wellbeing (Schuller, Preston, Hammond, Bassett-Grundy and Bynner, 2004).

Stanthorpe Shire is located on the Granite Belt of South East Queensland approximately two-and-a-half hours south west of Brisbane near the border with New South Wales. The population is 10,600, of which two-thirds live in the town of Stanthorpe with the remainder dispersed throughout the fifteen villages and surrounding farm properties covering a geographical area of 2669 square kilometres. Typical of smaller, rural communities west of the 'great divide', the town has an ageing community, a low median income, a lower proportion of the population with post-compulsory education qualifications and lower use of information communication technologies (ICT) in comparison with Brisbane metropolitan and larger coastal centres in Queensland (ABS, 2001, 2006, cited in Cavaye, 2008), all of which are considered risk factors in terms of the community's continued prosperity and longer

term sustainability. Having identified these risk factors and explored the opportunities presented by the learning community concept adapted for the Australian context, the Stanthorpe Shire Council declared Stanthorpe a learning community during the Adult Learners' Week celebrations in September, 2005.

Adopting Yarnit's abovementioned definition of a learning community and building on models developed by Kearns (1999) and others, a number of learning community projects, initiatives and strategies were formalised by local learning community 'champions' that aimed to build the learning community by taking action on a number of fronts including the formation of a community learning 'action group' that would promote the importance of lifelong learning to the broader community. This action group, which calls itself the "Granite Belt Learners", is comprised of local community members who are passionate about the value of lifelong learning for the continued well-being and prosperity of their community.

This paper reports the results of this group's engagement in a participatory action research (PAR) evaluation process two years on from Stanthorpe's official declaration as a 'learning community'. Through this reflexive engagement, the group revisited the original 'learning community' vision with a view to evaluating progress and framing possible lifelong learning futures. As well as highlighting identified benefits and opportunities for individuals, groups and the broader community, the report gives consideration to risks and challenges inherent in both the implementation and evaluation of their 'learning community' initiative, and presents recommendations for an action research and evaluation framework that can be used to guide the community on the next stage of its journey.

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

The concept of and rationale for the learning community of place, or geographic learning community (as distinct from online learning communities, communities of practice, communities of interest) draws on a number of theoretical constructs that are inextricably linked: firstly, the *meso* level concept of community, as a subset of society differentiated from both the *macro* perspective of the nation state or region on the one hand and the *micro* perspective of the individual on the other (Kilpatrick, 2000), which provides the context for living and learning (Williamson, 1998) and which is closely related to notions of 'place', 'place management' (NIACE, 2005), community development and renewal, individual and community capacity, active citizenship and civil society (Longworth, 2006; Williamson, 1998; Candy, 2002); secondly, the various forms of capital available to individuals in society classified by Schuller et al (2004) as human, social and identity capital, and how processes of building and drawing on these forms of capital by individuals within communities – particularly through participation in formal education and informal learning – can be linked to achievement of economic, social, cultural, and environmental outcomes for those individuals and communities (Kilpatrick, 2000; 2005); and finally, understandings of learning and related concepts of lifelong and life wide learning, the learning society, formal and informal learning, adult community education and social justice, which have emerging and ever-increasing connections with information communication technologies (ICT) through community informatics, networked learning and social action initiatives aimed at bridging the so-called 'digital divide' through universal access to ICT skills, infrastructure and connectivity (Knox, 2005).

A review of key concepts underpinning the Stanthorpe learning community initiative articulated in "Learning for life on the Granite Belt: A community learning strategy for 2003-2008" reveals the premises underpinning the Stanthorpe learning community initiative to be firmly located in this theoretical framework. This paper will draw on the research findings to explore, among other things, the extent to which theory has informed practice in this learning community and how these findings can in turn inform the development of an evaluation model that can serve to strengthen the links between theory and practice.

METHODOLOGY

In dealing with a level of social reality focussed at the interface between the *meso* level of the

learning community and the *micro* level of the individuals who are actors within that community, the evaluation is firmly located in a paradigm that values and seeks to understand relationships among people in communities and between people and the "formal and informal infrastructure" of their communities, as well as the nature of actions and interactions that are conducive to achieving positive outcomes for individuals and communities through civic engagement, participation in lifelong learning and the building of social capital (Kilpatrick, 2000, p. 4). The evaluation methodology adopted draws on models of participatory action research and evaluation (Wadsworth, 1997, 1998; Elden and Levin, 1991; Adult Learning Australia, 2005) designed to model as well as foster effective community engagement practices (see AUTHORS, 2007) by actively involving the Granite Belt Learners as research partners and "critical reference group" (Wadsworth, 1998, p. 6 [emphasis in original]) moving through three phases of an evaluative process that align with the project's title 'Review, Reflect, Refocus' (RRR). The evaluation framework or schema, which utilises a layered process of review and evaluation to answer a series of broad evaluation questions, is outlined in Figure 1 below. The three-tiered evaluation logic is designed to guide respondents through a process of reflection and critical enquiry as outlined in Figure 1.

Two facilitated focus group workshops led by the principal researcher with eight participants, combined with questionnaires completed by the same eight individuals, served as the primary data collection techniques. Analysis of relevant documentation – such as group and organisational policy documents – also contributed to the data gathered. Three of the participants (acting as the 'critical reference group' for the evaluation and co-authors of this paper)¹ then participated in a process of data analysis that involved refinement of research/evaluation questions to guide data analysis; individual and collaborative review and interpretation of the data in light of the three identified research/evaluation questions; and presentation of evaluation 'findings' to the broader group membership and broader research community.

¹ The three GBL members self-selected for this role in the sense that they had problematised the group's role as learning community catalyst and sought assistance from the principal researcher to develop and facilitate the evaluation. Wadsworth (1998, p. 10) maintains that "members of critical reference groups who have problematised a situation are in the most strategic position to work on its improvement".

Figure 1: Outline of evaluation process as first cycle of PAR

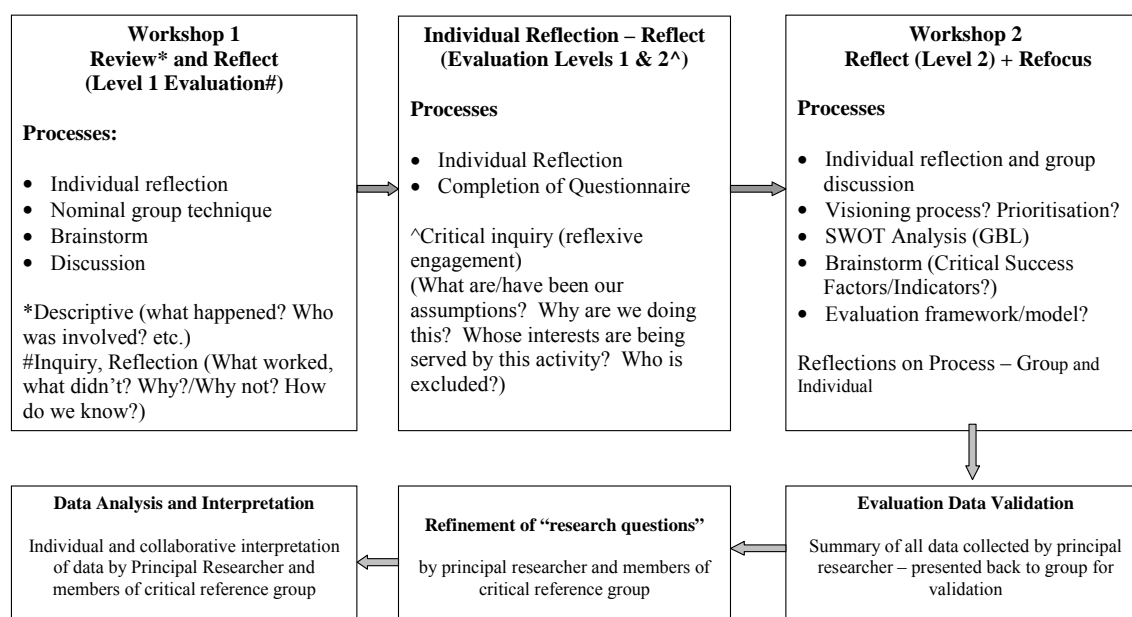


Figure 1: Review, Reflect, Refocus PAR Evaluation Process

The eight respondents participating in the evaluation represented the foundation membership of the Granite Belt Learners Group described in the introduction and one new member who had only recently joined the group. Demographic characteristics of the respondents have particular relevance for the study and are included in the discussion of findings.

Acknowledged strengths of the methodology include:

- Fitness for purpose (that is, the approach partially achieved what it set out to achieve taking into consideration the below constraints and with modification has the potential to achieve its intended outcomes)
- High levels of participation by respondents and members of the critical reference group in a collaborative and potentially transformative learning process
- Active involvement of members of the critical reference group in data analysis, interpretation and reporting increases the trustworthiness of the findings and minimises researcher bias.

Acknowledged limitations of the process that impact on the quality and potential utility of the data include that:

- The small number of participants involved in the evaluation limited the

broader impact and applicability of evaluation conclusions

- A reliance on individuals' perceptions with limited reference to 'objective' supporting data affected the legitimacy of some of the evaluation conclusions
- Time constraints impacted on the group's ability to fully explore the broader implications of their reflective and reflexive process as well as to effectively engage in the 'Refocus' component of the evaluation process.

DISCUSSION

The data gathered from this project have been analysed using three broad research questions that seek to inform the Review, Reflect, Refocus evaluation process:

1. To what extent is the group realising its stated vision?
2. What are the risks and challenges for the group in implementing and evaluating learning community initiatives?
3. What are the opportunities and possibilities for the group in their future work supporting the development of the learning community?

The documented vision of the Granite Belt Learners group was "To be a catalyst for lifelong learning on the Granite Belt". Examining personal definitions of learning, lifelong learning and learning communities through the RRR process enabled respondents to go to a deeper

level and identify assumptions that may be impacting on the achievement of this vision. The data indicate that the members understand 'learning' and 'lifelong learning' as complex concepts and see the 'learning community' initiative linked to enhancing opportunity for and wellbeing of individuals and the broader community. Although the data reflected a general consensus regarding the value of all three concepts for individual and community prosperity and wellbeing, it also clearly showed, in the words of one of the members of the critical reference group, "that we are all at different places on the path". This awareness of the diversity of members' understandings of key learning community concepts and constructs – particularly in relation to the original conceptual framework underpinning the learning community initiative – and the implications of this for the capacity of the group to realise its stated vision, emerged as one of the key learnings from the RRR process.

A learning community is defined as any group of people, whether linked by geography or some other shared interest, that addresses the learning needs of its members through pro-active partnerships, with participation and celebration being key elements for success (Kearns, 1999; ALA, 2005). The group set objectives and utilised a number of strategies to achieve its mission of promoting lifelong learning as a key principle in the establishment of a learning community. The events and programs conducted by the group such as the annual Learning Expo were perceived as successful, which indicates a certain legitimacy of the shared vision, however, the ability of the group to engage others in the concepts of lifelong learning and the learning community is seen as problematic. The data suggests that people will need to see or be able to recognise the benefits of learning for them. While tangible benefits are easy to convey, less tangible outcomes of learning are harder to articulate. It could be related to a sense of fun, achievement, recognition, reward and the idea that the means are as important as the ends.

If learning communities are seen as a community development process designed to build social capital through a learning approach, then it is imperative to understand the community which one is trying to engage. It became clear to the respondents through the RRR process that the group's knowledge and understanding of the needs and characteristics of the community was lacking. The findings also showed that a lack of diversity in the group's membership was potentially impacting negatively on the group's ability to engage the broader community. Issues

of communication and language were identified as barriers, suggesting that the approaches that have been made have not been reaching the desired audiences. Golding (2007) reminds us that bonding social capital or bonding ties within and between homogenous groups is not as useful for learning as bridging social capital, which connects dissimilar groups and, although harder to create, is more valuable in enhancing learning.

The group also identified, through questioning their own assumptions, behaviours and actions that may have been contrary to what was trying to be achieved. For example, it was identified that the group was not 'cohesive' and therefore not encouraging its own developmental learning, and that despite promoting a learning community, which implies participation, the group may appear elite. As Argyris and Schon (1974) assert, people hold maps in their heads about how to plan, implement and review their actions. They further assert that few people are aware that the maps they use to take action are not the theories they explicitly espouse. Also, even fewer people are aware of the maps or theories they do use (Argyris, 1980). The scope of the research was such that this question was not fully explored, however it is fair to say that the process undertaken has the impact of raising the awareness of the group to some of its blind spots.

Looking ahead, the respondents identified the following actions that they believed would take the group forward:

- Revisit and workshop the vision and goals, document policies and procedures, develop a strategic plan
- Expand the group's membership targeting 'missing' sectors of the community; survey community members for their ideas and develop more partnerships
- Improve marketing, promotion and communication; make links with other learning communities to enhance externality and knowledge-sharing
- Identify members' skills gaps and training needs; develop an induction and orientation process for new members; have regular learning events for the group to enhance knowledge and skills; ensure evaluation is a key component of monitoring the effectiveness of group activities as well as regular challenging of assumptions and expansion of knowledge.

CONCLUSIONS AND RECOMMENDATIONS

This paper has sought to evaluate the work of The Granite Belt Learners' group, using a participatory action research (PAR) approach, in order to determine the progress of the groups' learning community initiative over a two year period. Data collected was analysed to build a view of the members' understandings of where it started, where it was currently and the barriers that needed to be addressed for it to achieve its objectives. Through this process, key themes of *diversity, participation and engagement, language and communication, and learning* emerged as integral to the group's ability – or inability – to achieve its mission and respond effectively to current and future challenges.

One of the clear challenges for the group is to engage in critical dialogue, aimed at surfacing assumptions, so as to increase the understanding of both the implicit and explicit factors impacting on the group. Maintaining a participatory action research and evaluation model allows for critical reflection as a means of inquiry for identifying and exploring assumptions, surfacing power relationships, developing shared understandings and ensuring that learning community activities are informed by established theoretical frameworks that are subject to ongoing practice-based inquiry. The 'Review, Reflect, Refocus' process utilised for this study provides a model of participatory action research and evaluation for the Granite Belt Learners Group to adapt and utilise on an ongoing basis. Adaptations to the model based on identified limitations as a result of this research would include:

- Ensuring that all learning community activities and initiatives incorporate data gathering for evaluation purposes to answer the questions relevant to the Review phase (What did we do? Who was involved?) as well as the Level 1 Evaluation in the Reflect phase (Did we do what we said we would do? What worked well and what didn't? Have the desired outcomes and objectives been achieved? How do we know?)
- Providing adequate time and leadership through partnerships with educational and social researchers and community development practitioners to facilitate regular engagement in Level 2 Evaluation that utilises the original learning community conceptual framework as well as current learning communities research to model a cogenerative learning approach to community development that supports

ongoing critical questioning of the group's membership, structure, vision, values, objectives and activities, underlying assumptions and power relations.

The model can also be adapted to draw on and incorporate the key themes emerging from this PAR process – *language and communication, diversity, participation and engagement, and learning* – so that each of these themes serves as a focus for review, reflection and evaluation as well as informing the PAR process itself.

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PERSONAL LEARNING ENVIRONMENTS: IMPLICATIONS AND CHALLENGES

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ABSTRACT

Evolving Web-based technologies make possible the creation of personal learning environments (PLEs) that provide learners with increasing control of their individual learning processes. This paper reviews the concept of PLEs in the literature and suggests some possible implications for academic practice and institutional policy in higher education.

KEYWORDS

personal learning environment – Web 2.0 – mobile technologies – E-learning – social software – Generation Y

INTRODUCTION

Personal Learning Environments (PLEs) have begun to receive considerable attention in formal higher education on account of the philosophical learning values that content-centred Learning Management Systems (LMS) have failed to fulfil. This interest is a direct consequence of the new conceptualisation of the Web, where the learners can interact as part of a social network, and the introduction of the next generation of mobile technologies, enabling learning to occur anywhere, anytime.

The purpose of this paper is to review the learning principles underpinning a PLE, its learning values and conceptualisation in the context of higher education. It is argued that a PLE is very supportive of learning systems including adult learning, informal learning, lifelong learning and workplace learning. Moreover, the concept could be extended to support learning organisations that see knowledge as the most significant resource to remain current and competitive.

The paper is divided in three parts. The first part discusses how the evolution of the Web from Web 1.0 to Web 2.0 and the introduction of social software and mobile computing have been instrumental in the conceptualisation of PLEs. Central to these developments is the creation of social networks that promote the achievement of higher levels of learning with knowledge sharing, collaboration and sustained communication. The second part introduces the concept of a PLE and discusses its links with higher education standards and discipline requirements. The third section suggests some possible implementation implications of a PLE to tertiary education, particularly the new role of teachers in an environment where learners are less teacher

dependent and with increasing control of their learning processes.

Web 2.0, social software and mobile technologies

In his book, 'Weaving the Web', Tim Berners-Lee (1999), the inventor of the Web, originally envisaged the Web as a semantic space for learning: "My vision was a system in which sharing what you knew or thought should be as easy as learning what someone else knew" (Berners-Lee, 1999). He conceived of the Web as a strong vehicle to augment social interactions amongst participants:

The Web is more a social creation than a technical one. I designed it for a social effect — to help people work together — and not as a technical toy. The ultimate goal of the Web is to support and improve our web-like existence in the world (p.133).

Berners-Lee's vision of sharing knowledge through social interactions has been actualised in E-learning. These days the Web has evolved into a more flexible and dynamic system having the potential to support deep and meaningful learning. This new Web paradigm, known as Web 2.0 or the Semantic Web, is underpinned by the emergence of a new generation of Web-based technologies and standards (Anderson, 2007).

The concept of Web 2.0 has been popularised in Web services and social software such as Google AdSense, Flickr, Wikipedia, Napster, MySpace, Ebay, Amazon, YouTube, Facebook and Second Life amongst others. Here we are dealing with complex data that are created, merged with other forms of data, remixed and presented dynamically. In this new conceptualisation of the Web, the users interact as part of a social network. In fact, Downes (2005) sees Web 2.0 not as a technological breakthrough but as an attitude conveying a social revolution where a very complex knowledge network is possible as originally articulated in Wenger's communities of practice (Wenger, 1999). These social networks constitute E-learning 2.0 and clear examples of this online educational revolution

can be seen in the use of social software such as Blogging, wikis, e-Portfolios, instant message and podcasting for the exploration of new teaching and learning dimensions never before imagined (Lorenzo & Ittelson, 2005; Williams & Jacob, 2005).

Wise and Quealy (2006, p.9) argue that Web 2.0 and E-learning 2.0 enable a rich, innovative and genuine higher education environment consistent with the latest techno-social developments (Wise & Quealy, 2006). The online world has changed from a very large multimedia content repository to a truly interactive environment. Here is a new world of pervasive computing where, rather than passively consuming content, surfers have the opportunity of actually doing things. Moreover, this environment can potentially be omnipresent through the portability of mobile technologies like PDAs (personal digital assistants), mobile phones, digital cameras, and games consoles. In this context, learning moves more and more outside of conventional classrooms into a more personalised learning environment where learners can flexibly interact with both peers and teachers, and access multiple resources (Naismith, Lonsdale, Vavoula, & Sharples, 2006)

As discussed later, such technological changes have clear implications in the designing of university courses. Educational designers are facing the challenge of *digital native* (Prensky, 2001) students who have a huge range of available tools to interact with the subject matter. If social networking is what these students do well, the potential these emerging technologies have in improving teaching and learning is enormous. It is our challenge to understand where and how these technologies can add value to the learning process of our young generation of students.

According to Bryant (2007, p.9) and in the spirit of Tim Berners-Lee, what it is new and exciting in the growing adoption of social software for education is not the technology itself but the social affordances (Bryant, 2007). Technologies come and go and the focus should be more on the way people use them to collaborate, share ideas, create and innovate. Learning is a social activity and historically there has not been a better time to enhance it. Social software enables the construction of the *learning webs* envisaged by Ivan Illich in his controversial view of a de-schooled society. He argued that people's knowledge and understanding of life came from conviviality, or '.... through the apprenticeship ritual for admission to a street gang, or the initiation to a hospital, newspaper city room, plumber's shop or insurance office' (Illich,

1988). Today these learning webs are re-emerging thanks to social networking tools like Weblogs which have the potential to promote dialogue, debate and networking skills. Bryant (2007) elaborates further on this theme arguing that 'the conversational sense-making and social networking aspects of blogging are what maintain people engaged beyond the motivation simply to write and reflect for personal benefit' (p.11). Similarly, content creation tools like Wikis have begun to attract considerable attention within the universities on account of their potential in the co-production and editing of students group work. For example, a teacher can ask students to become contributors of a wiki by writing on a specific topic, and then students along with the teacher assess those contributions for effectiveness, thoroughness, comprehensibility and reliability (Prensky, 2007).

Anderson (2007) contends that social software is enabling people to use a more novel way of gathering, sorting and organising information. He says that through social bookmarking or tagging, people can organise and categorise knowledge more in accord to popularity and usage, rather than based on passive methods of classification. Enhanced podcasting is another popular tool used to distribute material over the Internet. In podcasting, students subscribe to a website with the purpose of downloading new digital media automatically which later they can reproduce on portable media players and personal computers.

For Prensky (2007) the explosion of social software and its popularity amongst young people has enormous implications in tertiary education. He talks about the technical clash that has emerged between the so called digital native generation (Generation Y) and the digital immigrants (teachers) (Prensky, 2001). There is a need to redefine the concept of education for part of what our students learn is through *hidden curricula*. Jenkins (2006) describes this as the 'learning young people are encountering through the everyday use of digital media and technological spaces' (Jenkins, 2006). The concern is to ascertain that what our students learn is relevant to them as future professionals and citizens (Twist & Withers, 2007). This problem could be addressed through the development of students' metacognitive skills as explained later in the paper (Zimmerman, 2002). Most importantly, however, is the development of teachers' competencies and awareness on the affordances of these new media in higher education.

For some teachers the use of these tools in education is perceived as a good thing, but for others as an extra burden, primarily because they change so rapidly with no time for them to learn and use them effectively in their teaching. The bottom line is that our digital natives are at the forefront on how to use technology and this could be used to leverage learning innovations and practice in higher education. Such a paradox needs to be resolved and Prensky (2007) sheds some light on what can be done. He suggests including students in the development of learning activities using social software they have already mastered. In doing so, the role of a teacher changes to that of an expert who assists students about 'where and how new technologies can add value in learning' (p.42).

Clearly the task for us as teachers is to gain a greater understanding of online communities of practice where members interact and learn together within a shared domain of interest, and a personal learning environment (PLE) has the potential to deliver this promise. But what is a PLE, what are its philosophical foundations and possible implications for higher education instructional and learning design; and teachers?

Personal Learning Environment

The purpose of this section is to discuss the literature about a theoretical perspective that helps to conceptualise and provide a rationale for a PLE. According to Attwell (2006), the central point behind a PLE is that the learning ownership and management migrates away from institutions to the learner. The clear implication of this self-directed approach is that learners are responsible for the assessment of individual needs, planning of learning activities, creation of learning resources and monitoring of personal progress consistent with the learning goals. While acknowledging the existence of many theoretical frameworks, the andragogical or adult learning theory developed by Knowles (Knowles, Holton, & Swanson, 2005) in the early 1970s is used here to provide a frame for this discussion. As discussed later, Knowles' analysis of teaching theories has an enormous relevance to the context of PLEs. He advocates an approach to learning characterised by inquiry and autonomy based on six assumptions:

1. The learner's need to know why to learn something before undertaking it.
2. The learner's self-concept of being responsible for decision making and living.
3. The role of the learner's experience in the learning process.

4. The learner's readiness to learn what is needed in real-life.
5. The learner's orientation to learning involving task-centred and problem-centred approaches
6. The learner's motivation to learn driven by internal motives like self-esteem, and job satisfaction (Knowles et al., 2005)

Zimmerman (2002) adds another assumption by saying that the learning environment is selected, structured and created by the learner and that there is a motivation to learning linked to the learner's beliefs. In this ecosystem there is a predisposition to learn with the learner having a continuous need to learn new knowledge based on prior experiences (Knowles et al., 2005).

In terms of taking control of their individual learning, Knowles, Holton, & Swanson (2005) argue that learners based this decision on their personal goals and that better outcomes are achieved when the learner maintains control throughout the four phases of the learning planning process:

- | | |
|----------|---|
| Phase 1: | Learners determine their own learning needs so as to achieve their personal goals. |
| Phase 2: | Learners create their own learning strategy and the resources to achieve the learning goals |
| Phase 3: | Learners implement their own learning strategy and use the learning resources |
| Phase 4: | Learners evaluate the attainment of the learning goal and the process of reaching it (Knowles et al., 2005) |

The implementation, however, of PLEs is not without challenges. Apart from ethical issues of intellectual property, there are institutional issues like curriculum development, content delivery and assessment amongst others that require some rethinking.

Given the nature of a PLE where the learner's needs are determined by the learner, the challenge for institutions is to make sure that what the student learns meets the disciplinary standards and competences as articulated in the academic programme. This might be achieved through effective feedback on learning outcomes and monitoring of student's progress (Attwell, 2006). In the case of continual learning, where the employer's learning needs are linked to the needs of the organisation, performance development provides opportunities for effective feedback and support for those learning needs (Debowski, 2006). It is hardly surprising that the

rapid changing science and technology has created the need for a continuous learning spanning beyond the formal education to remain current, competitive and improve career prospects in the workplace (OECD, 2007). Learning organisations are aware of these changing conditions to the extent that 'cyclical lifelong learning is not only a norm, but also a culture and an attitude' (Grace, 2006). Accordingly our students need preparation to become lifelong learners in a knowledge-based economy with plenty of challenges, pressures and demands where the responsibility for learning is a partnership across all organisational units. Senior leaders, leaders, local supervisors and individuals recognise their responsibilities for all aspects of learning to remain competent (Debowski, 2006).

A PLE recognises the self-direction, learning ownership and motivation typical of lifelong learners. In this scenario, for example, a typical PLE could resemble a collection of tools comprising a Mozilla Firefox Web browser, Mozilla Thunderbird email user agent, a Wiki for co-production in a workgroup, an RSS news reader to dynamically update content, a social bookmarking tool, a blog, an online community tool, and a project management tool to manage daily tasks and work projects.

A PLE could be seen as an integral part of higher education without undermining the universal principles of learning. As matter of fact, some universities have already started being active in the use of PLEs. For example, the University of Brighton in UK has formally introduced an online social community for shared academic interest (Community, 2008). Similarly, the University of Bolton is working on a reference model for the definition, characterisation and further implementation of a PLE. The aim is a model that can be used as a focal point to coordinate technological developments in this field (Johnson, Hollins, Wilson, & Liber, 2006).

If a PLE is a good concept, then what should we do for its smooth integration in conventional higher education? Specifically, in which ways can this affect our teaching practices?

Implications for institutions

Surprisingly the answer to these questions can be found on previous learning research. An example of this is Vygotsky's work of the individual development of knowledge through social and cultural interactions with language and dialogue central to cognitive development. Vygotsky (1978) believed that learning was affected by the social context where the learner was embedded.

Based on this premise, he introduced the concept of a *Zone of Proximal Development* as the distance between the actual learner's developmental level and the developmental level the learner can potentially achieve through expert assistance or interaction with other learners (Vygotsky, 1978). The notion of a *Zone of Proximal Development* also lays the foundation for *scaffolding*, where the teacher provides initial support to the learners and then encouragement so that they become more independent and responsible problem solvers. Clearly in a PLE, teachers could participate peripherally as experts or mentors assisting learners to construct their meaning through a sustained communication. Such a dialogue, established and initiated in a face-to-face interaction, can continue virtually in an environment supported by technology (Garrison & Kanuka, 2004).

Knowles, Holton, & Swanson (2005) have a similar view reporting on adult education research. They see the role of a teacher changing from teacher to facilitator of learning. Their view is of a facilitator performing a wide range of functions like 'process designer and manager' requiring a specific set of skills like 'relationship building, needs assessment, involving of students in planning, linking students to learning resources, and encouraging student initiative' (p.254). As facilitators of learning, teachers could help PLE learners be self-regulated learners and gain the associated metacognitive skills like planning, organising, self-monitoring, self-teaching and self-evaluating (Zimmerman, 2000). For example, as part of a metacognitive strategy, a facilitator could help students develop an electronic portfolio. In fact, the use of electronic portfolios has been used and advocated as a very powerful approach to help students build their profile in line with their professional aspirations. According to Lorenzo and Ittelson (2005), an electronic portfolio promotes the exchange of ideas and feedback between the creator of the portfolio and those who view and interact with it. From a learning perspective, the student's own and "personal reflection on the work inside an electronic portfolio helps create a meaningful learning experience" (Lorenzo & Ittelson, 2005). Similarly, a facilitator could encourage students to write an electronic reflective journal or blog as a learning space. Williams and Jacob (2005) used this approach in one of their business courses and their quantitative and qualitative analysis of the collected data showed that students were in favour of the continued use of blogs to improve teaching and learning (Williams & Jacob, 2005).

Another aspect of a PLE is that it gives the opportunity to the learning facilitator to also become a learner. In this environment, the combined action amongst the participants can be considered a reciprocal learning process where the learning facilitator is also benefiting from the active exchange of knowledge and reflection typical of a community of learning. Finally, on account of the liberal aspect of PLEs, a major concern amongst academics is the handling of the intellectual property. We need to help our new generation of learners to understand that the active participation in these communities of learning can not exist without a thorough understanding of ethical standards (Twist & Withers, 2007).

CONCLUSION

This paper reviewed the learning principles underpinning a PLE, its learning values and conceptualisation in the context of higher education. It was argued that a PLE has the potential to deliver the promise of online communities of practice where members interact and learn together within a shared domain of interest. The paper also reviewed the latest techno-social developments in social software, social networking, Web 2.0 and mobile computing considered as the driving force behind the implementation of PLEs.

The concept of a PLE is in its earlier stages and its impact in future higher education practices is hard to predict. Given the strength of its learning philosophical values, it is essential to remain alert to its future developments, the smooth integration into our normal academic practices being the most challenging factor.

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DEREGULATING STUDENT FEES AND THE IMPACT ON ACCESS TO HE IN THE UK: LEARNING FROM THE AUSTRALIAN EXPERIENCE

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ABSTRACT

This paper will examine whether the UK government should draw from the Australian experience in informing its decision making regarding lifting the existing £3000 ceiling on undergraduate tuition fees in England in 2009. It will argue that while there should be policy learning here, the UK government should proceed cautiously.

KEYWORDS

England – Tuition Fees – widening - access

INTRODUCTION

Since the election of the Labour government in 1997, there has been unprecedented policy focus on widening access to higher education (HE) in the UK for young people from low income backgrounds. It is now a mainstream political issue that can reach the opinion section of the national newspapers, and provoke comment by the Prime Minister (Brown, 2007). However, the government has also increased markedly the cost of higher education study introducing mandatory tuition fees in 2004 for all UK domiciled full time students at English Higher Education Institutions (HEIs) of a maximum of £3000 (fee levels differ in Scotland and Wales). This maximum will be reviewed in 2009 and there is significant pressure from many in the higher education sector to raise it or remove it entirely. This paper will consider the relevance of the Australian experience to this decision. Firstly, it will outline the relationship between social class and HE in England, before looking at the approach adopted by the Labour government since 2007. It will then place the UK in its international context before looking at the Australian experience and the extent to which it is comparable to that in England. The paper will argue that while international comparison is essential to inform good policy making it has to be done in context. There is a danger that headline statistics are used to satisfy political arguments and hide a more complex picture grounded in a different culture and a different educational system (Wolman, 1992).

Widening access to HE in England – the predominance of class

Inequality in access to higher education in England is an issue dominated by social class. There are major issues where ethnicity and disability are concerned, but this paper will focus on class issues. Unequal access by social class is a long standing phenomenon. The government

itself in its 2003 paper *'The Future of Higher Education'* was clear on this illustrating how despite the numbers attending higher education increasing dramatically in the post war era, the gap between social classes had not narrowed. In the UK from 1960 to the year 2000 the gap between the skilled (manual), partly skilled & unskilled and those from managerial positions in terms of attendance at higher education has widened from 25% to 30% (Department of Education and Skills (DoES), 2003). However, measuring inequality in participation in HE is not straightforward. There is not agreement on whether the situation for students from lower class groups is improving or not, nor is there one overall measure of participation which includes all we need to know. The Higher Education Funding Council for England (HEFCE) commissioned a review of over 1000 pieces of research into the issue of widening participation in England in 2006. In the review principal author Stephen Gorard, argues (contrary to the government) that while a large gap remains there are increasing numbers of young people from lower social class groups going to HE. This means that the chances of those from such groups going to higher education are improving.

What is more, the numbers of people in this class grouping have declined considerably over this period. Bekhrandia (2003) argues that in 1970, 90% of the population described themselves as working class and this number has declined to 40% by 2000. Hence, while in 1960 those in the higher social class groups were 7 times more likely to enter higher education than those from lower social class groups that differential had reduced to 3 times more likely by 1995.

The drivers of inequalities of access in England

There is some evidence to suggest that the cost of higher education may deter potential entrants from lower income backgrounds from entry. In 2004 Watson and Church (2003) administered questionnaires to over 500 young people aged 14/15 from lower socio-economic backgrounds

and followed this quantitative work up with focus groups with some of the sample. They found that 85% of the sample who said that they were going to go to university would change their mind if they were likely to have a debt of over £20,000. In 2005 Callender & Jackson surveyed nearly 2000 UK school and FE college leavers taking courses that could lead to HE. They concluded that students from poorer backgrounds were more debt averse than those from higher income backgrounds. Callender (2003) found that more debt averse students were one and a quarter times less likely to enter HE. The implication of Callender's work is that higher costs are likely to deter students from lower income backgrounds from entering higher education. Most recently research commissioned for the Sutton Trust looking at the future plans of 1628 16-20 year olds, indicated that of those who did not want to go to HE, two-thirds cited cost as the main reason (Davies et al., 2008). Suggestive as the evidence above is however, none actually looks at a particular cohort of students and longitudinally tracks their progress into HE attempting to isolate the impact of the new tuition fee regime. This of course is difficult because the regime has only been in operation for a very short period of time.

However, regardless of the impact of cost the fundamental reason that differing social groups access HE at differing rates is much deeper. The 2006 HEFCE review described above, concluded that 'patterns of participation in higher education are highly influenced by family background and early experiences' (Higher Education Funding Council for England (HEFCE), 2006). The influence of family background manifests itself in differences in attainment and seemingly aptitude from an early age. At school leaving age 16, 38% of children from poorest quartile of households obtained 5+ A*-C at GCSE (the matriculation requirement for most HEIs), compared to 73% from the top quartile (DoES, 2006). GCSE attainment is the key predictor of post 16 destination. This difference in attainment interact with cultural barriers based around perceptions of HE as being not for 'us', a lack of knowledge of HE in the home and a lack of expectation of HE entry (Archer, 2003, Reay et al., 2001). These class based factors interact with gender, ethnicity, disability and geography to produce an interacting and conflicting 'matrix' of factors which underpin inequalities in participation. The more interesting work at the moment is trying to explore how this matrix is constructed for particular groups and locate cost of HE entry within it (Reed, Gates, & Last, 2007).

Widening access policy in the UK

Labour was clear in its commitment to widening access soon after being elected in 1997, with the early publication of a paper on expanding learning across the system called the '*The Learning Age*' (Department of Education and Employment, 1998). It announced the first allocation of funds for specific projects to encourage partnership 'outreach' activities between schools, further education colleges and universities. This was accompanied by the allocation of funds directly to universities to help them meet the extra perceived costs associated with taking in students from different backgrounds. Such funds were allocated primarily on the basis of geography – the more students from low income areas, the more funding received. Each university was also set a benchmark for its recruitment of students from low income areas which reflected the nature of its existing intake and requirements for entry. In 2000, the government became quite explicit in its ambitions to increase participation in HE setting a target of 50% of 18-30 year olds experiencing higher education by 2010 (Blunkett, 2000). The setting of the target was followed in the early 21st century by a considerable expansion of its commitment to collaborative 'outreach' work. In 2001 it funded a co-ordinated programme in urban areas, that was expanded to cover the whole of England from 2004 and rebranded as 'Aimhigher' (HEFCE, 2004). It was coupled with the extension nationally of a pilot of Education Maintenance Allowances (EMAs). These are payments to young people pursuing post 16 but pre Higher Education courses, which will lead to HE. They were designed to level the playing field i.e. reward study as equally as other training/employment options which do not lead to HE. Up until the late 1980s Higher Education was free in the UK for all full time students and means tested grants were available to support students as they studied. Students were also eligible for help with their accommodation costs from the state.

In 1990 student loans were introduced and the means tested grant frozen. As higher education expanded in the UK in the 1990s in stages the levels of grant were reduced and the availability of loans increased. In 1998 financial arrangements saw a step change with the introduction of tuition fees payable by the student at the point of entry of a £1000 and clear differences emerging in financial arrangements between England, Northern Ireland, Scotland and Wales. From 1999 grants were removed all together. The 2004 Higher Education Bill was fiercely contested and its enactment in law only

achieved with significant concessions. These included the re-introduction of means tested grants to a maximum of £2700 per annum, fees only to be paid after graduation (although the funds borrowed will accumulate interest from the point of borrowing albeit at an interest rate significantly below the market rate), and the compulsion for all universities to submit an Access agreement to the Office for Fair Access (OFFA). Access agreements outline how institutions will use the extra income and what measures they will undertake to safeguard entry to their institution by under-represented groups. These measures are to include outreach activities to widen access and extra financial support for students such groups. OFFA is the organisation that will assess and police these agreements. Since 2004, Aimhigher has continued and funding has now been announced to 2011. Another initiative was also launched in 2006 that aimed to address supply side issues in widening access in vocational areas. Over 90% of those with 2 A –levels or more (the general minimum that will get you accepted on a HE course) enter HE as opposed to 40% of those with the equivalent vocational qualification (Newby, 2005). Hence, HEFCE led the creation of partnerships of HEIs and Further Education Colleges called ‘Lifelong Learning Networks (LLNs) whose aim was addressing barriers to progression in vocational areas due to course mismatch and unavailability of HE opportunities for qualified learners by changing the supply of HE offered to the learner. By 2007 the whole of England was covered by an LLN, each funded on a 3 year basis (HEFCE, 2007). The cumulative impact of the policies outlined above is a significant amount of annual investment in outreach activities estimated at over £2bn in 2007-08 (Clark, 2008) (although this an estimate and an accurate figure is difficult to obtain).

Comparing Australia and England

There is a strong possibility that the Australian experience could be used as evidence to support a raising of the tuition fee cap in England. Politically, Australia presents a viable policy barometer for England for three main reasons. Firstly, the historical and cultural connections between the two nations give it a certain appeal to policymakers. Secondly, the Australian system of tuition fees is something of a mid-point between the ‘one size fits all fee cap’ approach of in England and the total free market approach of the US. Whatever decision is taken in 2009, it will be controversial. A mid point such as the Australian approach could be an appealing political compromise. Thirdly, there is an existing shared policy history in this area. As in England government action has been crucial in

promoting the widening access agenda. It was a Labour government that did this with its 1990 policy document ‘*Fair Chance for All*’, which contained a clear commitment to widening access to higher education on social justice grounds and as Labour did in 2001 set a policy goal – but in a more detailed way than in the UK with targets for 6 different under-represented groups (Department of Education and Employment, 1990). Furthermore, as in England such targets were also accompanied by an increase in the cost of higher education for the student. The Higher Education Contribution Scheme (HECS) introduced resembled closely then what England has now. It was based on income contingent loans to assist in the payment of fees as in England and uniform across institutions and subjects. The main difference was in a direct relationship between income after graduation and repayment levels (Action on Access, 2006). In England the required payment is not linked to income in a compulsory way. Furthermore, as in England, the regime has become gradually more stringent over time. The key change and contrast of course with England, was the shift in 1999 from a flat fee to three subject bands with each band commanding a different fee related to the likely earnings after graduation in that area. This shared policy history is important. It supports the validity of comparisons in terms of outcomes between England and Australia.

SHOULD ENGLAND FOLLOW AUSTRALIA?

Access to HE from lower social class groups has not declined since the introduction of fees

This is a key aspect of the Australian experience as far as policymakers in England are concerned. As argued above, the last HE bill was highly contested and this remains a ‘hot’ political topic. Overall, the data shows that the impact of introducing tuition fees since 1989 has not been to reduce access to higher education for low socio-economic groups. Up to 2002, the share of university places for those in the lowest 25% over this period has remained at just below 15% (James et al., 2004). This is despite the gradual tightening of the student finance regime described above.

Evidence indicates that cost is not the primary driver of access

This evidence is important in the English context, where politicians are keen to play down the influence of cost. The reasons for inequalities in Australia appear similar to those described above for England i.e. a combination of low attainment prior to HE, factors associated with gender (as in the UK boys are under-represented in HE across class groups) and ethnic identity, the cultural gap

in knowledge and aspiration that lower class groups suffer from where HE is concerned and worries over cost (James, 2002, 2007). What is crucial here is the evidence that cost is not the primary factor within the matrix of factors above which underpin lower participation. As James (2007, p. 11) argues

'Cost is a factor but it is not the only factor. All the evidence points to lower levels of school achievement, lower aspirations, and a lack of perceived personal relevance being far more potent factors'.

Banding fees has not affected participation in particular subjects

A major concern in England has been participation in certain subjects – in particular 'professional areas' – law, architecture etc. and STEM subjects (Science, Technology, Engineering and Mathematics). These subjects are likely to be in the most expensive bands in any tiered system. Again, the Australian evidence appears to indicate that participation in these areas has not declined as fees have risen (Foskett et al., 2006).

OR SHOULD ENGLAND BE MORE CAUTIOUS?

Supporters of raising fees in England can point to Australia's experience as evidence for their views. There are however also strong reasons to be cautious here.

The situation for lower class students in Australia has not improved

Inequality of access to HE by social class does not appear to have improved for a long time in Australia. As shown above, it has remained static. This is a crucial point, in danger of being lost in England. Foskett et al. produced a lengthy comparative study for the Higher Education Academy in England, looking at fee regimes and student attitudes in the two countries in 2006. While it pointed to the resilience of participation in Australia to rising costs, it failed to argue that this was only a success if you did not have stated goals (as Australia & England do) to raise participation! The fact that things are 'not more unequal' is not a strong argument when your professed aim is to actually *reduce* inequality. Furthermore, access to more selective HEIs in Australia has remained similarly unequal. As stated in the review of participation in Australia by equity group from 1991 to 2002 commissioned by the DEST, the proportion of students from higher socio-economic groups going to the GO8 group of research intensive universities over that period had actually increased from 51 to 54% (James et al., 2004).

Do the drivers of access differ in the two countries?

As argued above, it is an ongoing task to understand better how the matrix of factors outlined above interact to explain inequalities in access in both countries. Given this, how do we know that that the combination of factors that make participation in HE at least resilient to cost in Australia are not unique to that country, and not present in England? There may be evidence to support this view. Comparing surveys of young people's attitudes to educational progression in the two countries suggests that across cohorts young people's desire in Australia to stay in the educational system post 19 may be stronger (James, 2002, DoES, 2004). Differences occur by social group but they appear less pronounced than in England. Therefore, the commitment to educational progression may be more deeply embedded culturally in Australia than in England.

The differences between the level of investment and national support for outreach activities and the more stringent finance regime in Australia may support this position. Participation in Australia has remained resilient without national programmes like Aimhigher/Lifelong Learning Networks and with less comprehensive funds available for student maintenance than in England (Foskett et al., 2006). Part time working whilst studying, much frowned upon in England while involving 40% of students, is more accepted in Australia running at 70% (James et al., 2007). Comparing surveys across countries though is very difficult and attitudes may not differ as much. Furthermore, universities do invest significantly in their own outreach work in Australia, they have perhaps more stringent participation targets than in England and whether financial support comes from the government/universities (as in England) or the private sector/family/part time work (as in Australia) may not be a major factor in explaining participation. The key point here is whether in England we can say with enough confidence that the similarities between the two countries outweigh the differences, and we can use Australia's experiences to support the raising of fees. I would argue at this point, without further evidence, we cannot.

CONCLUSION

There is a strong possibility that the student finance regime will change again in England from 2009. It will be a controversial decision and English policymakers will (rightly) look to other systems to inform their decision making. There may be much to learn from Australia in how, despite a more stringent finance regime and less

investment in 'outreach' activity, participation in higher education remains relatively high. However, in doing this policy comparison, it is crucial that cultural and structural differences are explored and there is robust evidence that investigates what underpins attitudes and values regarding higher education in both countries.

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LEARNING NETWORKS: HARNESSING THE POWER OF ONLINE COMMUNITIES FOR DISCIPLINE AND LIFELONG LEARNING

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ABSTRACT

One of the principal roles of higher education in fostering lifelong learning is helping students attain discipline or professional knowledge. This paper examines the notion of how a discipline wide learning network, enabled by Web 2.0 technologies, can be used to help alleviate some limitations of learning management systems (LMS) that may prevent higher education fulfilling this role.

INTRODUCTION

Catts (2004) made the observation that there are two principal outcomes of higher education from a learner's perspective. These are:

- The development of skills to sustain individuals in the practice of lifelong learning.
- The attainment of discipline or professional knowledge.

Catts (2004) further suggests "higher education is failing to provide the tools to sustain lifelong learning". In an increasingly competitive higher education sector and with an increasing focus on improving student learning, it is important that institutions of higher education seek to address this failure and promote activities and innovations that assist in achieving the two outcomes.

Now, more than ever before, opportunities exist for higher education institutions to leverage technology to facilitate these two principal outcomes and meet the expectations of today's learner. Web 2.0 has provided tools such as Blogs for discussion, Wikis for information and syndicated feeds as the 'glue', that give the average consumer the ability to create, aggregate and remix web content to suite their own requirements and this in turn is changing the expectations of the learner. Talking about the type of learning Web 2.0 supports Downes (2006) explains:

"Learning is characterised not only by greater autonomy for the learner, but also a greater emphasis on active learning, with creation, communication and participation playing key roles, and on changing roles for the teacher, indeed, even a collapse of the distinction between teacher and student altogether."

This type of learning fits well with the idea of learning networks. Learning networks are self-organised online communities designed to facilitate lifelong learning (Berlanga et al. 2007). Online learning networks are not new to higher

education but their implementation has been hampered by a mismatch between the requirements of such networks and the capabilities of Learning Management Systems (LMS). Harnessing the capabilities of Web 2.0 to establish online learning networks outside of an LMS seems to offer an opportunity to avoid these limitations and enable an institution to provide the tools necessary to sustain lifelong learning. This paper seeks to describe how this can be achieved through the development of an online learning network using Web 2.0 technology for the Bachelor of Professional Communications program at Central Queensland University (CQU).

The Bachelor of Professional Communications program "aims to produce graduates who can communicate effectively within an organisational environment, specifically within a corporate communication or public affairs contexts" (CQU, 2008). The instructors of this program have a requirement for an online knowledge base that provides information and discussion areas to all participants in the program. In particular they wish to avoid any limitations on participation to current course members. The proposal is to create an online learning network based around this program to serve all participants involved within (and eventually outside) the program. This paper seeks to establish the theory-informed design for this online learning network.

This paper starts by offering an explanation of why lifelong learning and professional knowledge are important, how learning networks can assist lifelong learning and professional knowledge as well as detailing some of the mechanisms of interactions and learner engagement. To illustrate the inappropriateness of the existing paradigm and in an attempt to break away from it, the paper spends some time establishing how the limitations of the LMS paradigm create problems in the support of lifelong learning and online learning networks. Having established the weaknesses of the existing paradigm, the paper seeks to generate a

list of requirements for the establishment of an online learning network for the Bachelor of Professional Communications project.

Lifelong learning and professional knowledge

As individuals take increasing responsibility for their own decisions about lifestyle and identity, life planning and guidance also become increasingly important. According to Edwards et al. (1998) adults are subject to an ever-increasing explosion of information and knowledge which in turn places a greater emphasis on learning, that is ongoing, rather than content, that will soon be out of date. More succinctly, Siemens (2004) states “know-how and know-what is being supplemented with know-where”. In considering the higher education context in particular, Catts (2004) lists some reasons why lifelong learning and generic skills are focal points:

- Increased focus on market ready graduates.
- Changes in industry expectations of a graduate.
- Reduced individualised delivery as a consequence of move to mass education and substantial per student cuts in funding.
- Student demands, prompted by the move toward user pays.
- Explicit government policy reinforced by quality assurance measures.

A method that is increasingly used to promote both lifelong learning and professional knowledge is learning networks. According to Koeper & Sloep (2002), in these communities learners participate, actively creating and sharing activities, learning plans, resources and experiences with peers and institutions. One of the key requirements (and strengths) of a learning network is a wide cross-section of participants which gives the network a healthy diversity of opinion. The participants can be learners, instructors, industry affiliates, tutors, managers or anyone seeking to benefit from the activities, resources and experience made available by the learning network. Typically these learning networks are self-directed and self-organised. Problems arise if the institution is using an LMS that restricts the environment in which the learning network can operate through some of the inhibitors mentioned later in this paper.

Learner interactions are important when considering the value of learning networks and identifying potential roadblocks to their operation. Rhode (2007) expanded upon the work of Anderson and Dron (2007) and created a matrix that helps explain the dynamic variety of

interactions that are often considered essential in fostering a socially constructed learning environment. The core elements of this interaction matrix are content, learner, instructor, collective and network and these are enclosed in formal and informal learning arenas to build a meaningful learning experience. Abstractly, the network component encapsulates the establishment and maintenance of social connections which are specific for each member while the collective component is “a kind of cyber-organism, formed from people linked algorithmically...it grows through the aggregation of individual, group and network activities” (Anderson & Dron, 2007). Anderson and Dron (2007) refer to the Collective as, “The largest form of social granularity in which members participate for individual benefit, but their activities are harvested to generate the ‘wisdom of the crowds’”. The nature and quality of these interactions is often proportional to the level of student engagement with the discipline involved. As an example of this, Astin (1985) states “the student’s commitment of time and energy to academic work can be strongly influenced by student peers”. Astin’s comment comes from an era where teaching was mostly face to face and whilst it may be true that it crosses over to online teaching it’s not proven beyond doubt. The project described in this paper will provide an opportunity to investigate this proposition.

Astin’s (1985) theory of student involvement contends that students learn by being involved. The quality of student involvement could be measured by the quality of the interactions described by Rhodes (2007) and Anderson and Dron (2007). On this basis it would appear logical that any mechanism that fosters and encourages student engagement will contribute to positive outcomes for both the learner and the institution. Wenger, McDermott and Snyder (2002) list advantages that arise for an individual participating in an effective learning network. These include: additional assistance with challenges, especially from peers; more perspectives on problems; access to expertise; more meaningful participation; a network for keeping abreast of a field; and a stronger sense of identity within their profession. Capitalising on these advantages by developing an online learning network in the typical university environment can be difficult due to a range of technical and cultural inhibitors.

LMS inhibitors to online learning networks

Online learning networks represent a shift in practice for some within higher education. As a result there are a range of inhibitors including,

but not limited to, organisational policies and processes, staff conceptualisations of learning and teaching, and student readiness and acceptance. It is important that these, and other inhibitors, are appropriately addressed to increase the chance of successful implementation and use of online learning networks. For the purposes of this paper, however, the focus is on the inhibitors created by Learning Management Systems. LMSs are the predominant, almost unquestioned, technical means through which e-learning is implemented within higher education and create a significant barrier to the learning networks.

A barrier may be surmountable via application of Web 2.0 technologies. Understanding the difference between Web 1.0 and Web 2.0 can explain some limitations of the LMS paradigm. According to Downes (2005) the web has shifted from being a medium where information was transmitted and consumed to a platform or network where content is created, shared, repurposed, remixed and passed along. An LMS is more concerned with providing the organisation with the ability to produce and disseminate information by centralising and controlling services (Siemens 2006). Typically an LMS delivers courses to the learners without allowing them to share and remix the information contained within. The Web 1.0 philosophy embedded within an LMS creates a range of inhibitors to the establishment of a learning network which is more about conversation (Web 2.0) than content delivery (Web 1.0). The rest section introduces five classes of inhibitors to learning networks that arise from the characteristics of an LMS.

Content focus.

Most learning management systems effectively provide learner-content interaction (Siemens 2004). There is some research that indicates it may even be more effective than traditional methods like face to face (Ladyshevsky 2004). Due to the content focussed nature of LMS it could be said that the environment it provides falls short of a real world environment in that it often lacks the physical, psychological, emotional, social and cultural elements required to accurately reproduce a real world learning situation. The tools available to facilitate the range of interactions described by Anderson and Dron are often basic at best. Siemens (2004) makes the observation that only recently and in limited ways have LMS vendors started extending tools and offerings beyond simple content sequencing and discussion forums. He goes on to say that while this is progress it is still within a "locked-down, do-it-our-way" platform.

Organisation and instructor focus.

Learning Management Systems give value to organisations by providing a means to sequence content and create a manageable structure for instructors and administrators (Siemens 2004). This is valid from a management and control standpoint but it can be argued that the fundamental purpose of universities and therefore learning management systems is to provide an environment for a learner to learn. The use of ICT within tertiary education has impacted more on administrative services than on fundamentals of learning and teaching (OECD 2005).

IT Culture.

Learning management systems were developed and implemented in the mid 1990s at the peak of Web 1.0 when IT departments were primarily concerned with centralising and controlling services with a view to reducing costs. Decisions made by IT departments are generally made on the assumption of keeping the management and control of technology centralised (Mossberg 2007). Consequently if a student or staff member wishes to engage in any form of e-learning they must use the system that has been selected by the institution. This has led to problems in recent years where the technology available to individuals has been outstripping the functionality and usability of the technology provided by institutions (Johnson & Liber, 2008).

Informal learning.

"Informal learning accounts for over 75% of the learning taking place in organisations today. Often, the most valuable learning takes place serendipitously, by random chance" (Siemens 2004). Typically, learning management systems have clear boundaries that actually inhibit and discourage the development of informal learning and lifelong learning. They do this by limiting learning to those individuals enrolled in a course, limiting the period in which the course is offered, and only allowing the tools provided by the LMS. Often when a course is finished or the student graduates they can no longer access the LMS so they can no longer revise the information they've learned previously. This is a significant mismatch between the requirements placed on learners by the increasing complexity and speed of modern life which is removing the separation between learning and work.

Course based models.

An LMS is designed to provide tools for an instructor to deliver a single course for a single term. This creates several issues in the development of a discipline-based network. These include

It is difficult to create a program or discipline wide community as each course is closed to all but the students enrolled in that specific course. Past students or industry practitioners cannot participate or share practical knowledge with the learners as they aren't enrolled in the courses. As stated previously today's learner requires information or skills quickly and efficiently. A term and course based system generally doesn't allow this level of flexibility.

Requirements of a learning network

Having suggested the need for a discipline-based, learning network the obvious question is what would the requirements of such a network be? Wenger, McDermott and Snyder (2002) propose a collection of basic requirements for an online learning network framed using a somewhat Web 1.0 flavoured terminology.

- A home page to assert their existence and describe their domain and activities.
- One or more conversation spaces for online discussions.
- A repository for documents, including research reports, best practices and standards.
- A good search facility to find things in the knowledge base.
- A directory of membership with some information about members' areas of expertise in the domain.
- A shared workspace for synchronous electronic collaboration.
- Community management tools, mostly for the coordinator but sometimes for the community at large. These might include the ability to know who is participating actively, which documents are downloaded and other measurement tools.

Based on the above thinking it is proposed that CQU develop an online, discipline-based learning network for the Bachelor of Professional Communication. This proposal is driven by the desire to add some cohesion to the range of courses that make up this degree level program and address the perceived limitations, as described above, with the learning management system used at CQU. Drawing on the above discussion and initial Web 2.0 experiments at CQU (http://cddu.cqu.edu.au/index.php/ELearning_2.0) an initial list of requirements has been established for the Bachelor of Professional Communications learning network.

The following outlines this initial list of requirements using the structure provided by Wegner et al (2002) translated to utilise some

Web 2.0 technologies that have been developed since their work was completed in 2002. As an extension of the Web 2.0 ethos the majority of the services provided for the learning network will not be hosted on a single server provided by the institution. Instead, a plethora of existing, freely available services and software will be aggregated and re-purposed to fulfil the identified requirements.

Home page and shared workspace.

The "home page" provides the community with an idea of its identity and its place within the broader Internet. The Bachelor of Professional Communications learning network will be based around a website that will use RSS to draw in information and services from the broader Internet. These will be used to provide the remainder of the required functionality and also to help forge the type of collective identity the learning network will require. With a Web 2.0 focus the entire Web and the full range of services and tools on it become the shared workspace for the network. The home page will act as a central point through which all these services can be seen and used.

Conversation places.

The full range of Web 2.0 communication tools (e.g. aggregated blog posts, traditional discussion forums, instant messaging, Skype, virtual worlds etc.) will be drawn upon to create different conversation places for the learning network. Some of these forums will be hosted as part of a course offering within the CQU LMS. Teaching staff, current and past students will be encouraged to post to blogs, either on the site or on the broader web. These blogs and the discussion boards will generate feeds that will be available for remixing. Online news organisations will be automatically filtered for keywords and phrases relating to the discipline and the resulting RSS feed will displayed on the home page to stimulate interest and conversation on topical matters.

Document repository.

A combination of social bookmarking, individual and group blogs and wiki websites will be used to enable participants develop a repository of relevant information that they can share, remix and repurpose. Social bookmarking or tagging gives the group the ability to 'tag' content of interest from around the internet with pre-determined tags which can then be used to generate further RSS feeds to populate the main web site with related content. This ability to 'tag' content from the internet has reduced the requirement for a document repository as there is no need to store the documents locally.

Search facility.

Given that the majority of services used in the creation of the learning network will be hosted on external services. It makes little sense to provide an learning network focused search facility. Instead, the majority of the information will be freely available on the internet and thus able to be searched via internet search engines such as Google and Technorati.

Directory of membership.

Universities have an existing directory of membership in the form of student records and human resource databases. While these databases will be used for current students and staff additional systems need to be put in place to enable the appropriate participation of the broader community. It may be possible, as the experiment progresses that this directory of membership may also be integrated more into the LMS to allow network members, but not current students/staff, appropriately access information and services. As the project progress, options like an open source authentication protocol or predetermined tags will be considered to define membership in a more distributed manner.

Community management tools.

The community will require a range of services to identify who is participating actively, and which information resources are popular, among other things. The majority of these will be drawn from appropriate, freely available services such as Google Analytics and customised RSS feeds. However, there will be some local development to provide connections between these broader services and those provided by the LMS and the institution.

CONCLUSION

While there appears to be value in learning networks with regard to lifelong learning and discipline specific knowledge, the single, centralised approach to e-learning taken by most universities restricts the establishment of a learning network. This paper touched on some of the common limitations of the LMS that inhibit the development of an online learning network within a typical university environment. To address these limitations and provide appropriate support for a discipline based learning network, we have proposed an approach leveraging upon some Web 2.0 concepts that can be established within the confines of the traditional university e-learning practice. A project to establish a learning network has been embarked upon using the Bachelor of Professional Communications at CQU with the intention of gaining further insight into the issues surrounding online learning networks in a university environment.

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REFRAMING FUTURE LIFELONG LEARNING DISCOURSES

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ABSTRACT

This paper discusses if, and then how, we can envision present and future ideals such as a 'learning society' consisting of successful 'lifelong learners', without excluding 'others' who do not fulfil the norms of such a society. That is, how can we re-frame future lifelong learning as an inclusive discourse?

KEYWORDS

discursive stories – deconstruction – the lifelong learner – the 'other'

INTRODUCTION

It should not be an overstatement to say that lifelong learning has become one of the most popular 'hooks' in modern educational policy. Much hope is invested in lifelong learning globally as well as locally. As discourses of lifelong learning operate in a variety of contexts such as schools, universities, adult education, liberal education, workplaces, libraries and community centres, there are different meanings and usages of 'life', 'long' and 'learning' (Berglund 2004, 2008). Although there are national and sectorial differences concerning these three aspects, there is a shared meta-language pursuing an urge to be proactive. To large extent different national discourses in the Western world display a common analysis of contemporary problems and how these should be dealt with.

As a policy concept lifelong learning is put forwards as a key tool to accomplish the desired future society: the 'learning society'. As such, it mobilizes nations, organizations as well as individuals and promises prosperity, growth and development as a reward (Popkewitz *et al* 2006, Jarvis 2007). When conceptualising the 'learning society' a number of paradoxes of lifelong learning emerge. First, lifelong learning is construed as a discourse of risk and fear as it visualises the social and economic catastrophes that will emerge unless developing a 'learning society' populated by 'lifelong learners'. At the same time it expresses a discourse of hope of a better future (Berglund 2008, Popkewitz 2006). Another paradox concerns how the construction of the 'lifelong learner' as the desirable citizen of the learning society also addresses its semantic opposite as the undesirable 'other' who fails to live up to the expectations of such a society (Ibid).

This paper discusses how such paradoxes instead of arousing despair could be productive tools as

eye-openers that can lead to change. It focuses on how we can conceptualize lifelong learning practices such as policy-making, educational practices, work-related practices and self-improving practices as *discursively produced stories* and how such stories also express what is considered to be normal/abnormal and desired/undesired within a certain discourse. Discursive stories can be read and understood as 'confessions' that express our understanding of our past and present, but they also express how the future is perceived. Understanding and analysing lifelong learning as discourse can thus be a productive way of thinking about the future since discourses are not to be regarded as fixed 'truths', but are open to possible change.

RESEARCH APPROACH

This paper rests on a newly published doctoral thesis (Berglund 2008) in which deconstruction was used as a methodology to open up and challenge contemporary lifelong learning discourses in Sweden, Australia and the USA. The thesis was concerned with how the rhetorical construction of lifelong learning in contemporary policies shapes our understandings of the present, which also includes an understanding of the past as well as the future. Theoretically, it rests on a poststructuralist assumption that what people take for granted as facts and truth is the result of a social construction of thought (MacLure 2003, Foucault 1979, 1980). From such an understanding truth is construed differently in different discourses in different times in history as a matter of power-knowledge relations (Foucault 1979). The truths that are taken for granted within a discourse do therefore not represent *the* reality, but are to be understood as re-presentations of what is held as true and real within a discourse as a function of the power-knowledge relations of the discourse. As such, there are always competing versions of the world, which may be described as the politics of representations (Latour 1999). Language plays an important part in the production of discourse since it both construes and is construed as a social relationship (Nicoll 2003, MacLure 2003). Accordingly, the language used when talking and

writing about lifelong learning both reflects socially negotiated ideas and shapes imperatives of normative behaviour. Language in all its communicative forms: written, spoken, articulated in art, music, dance etc., produces *artefacts* resembling discursively produced knowledge that are held true within specific communities of thought and practice. Language is thus far from being neutral. Derrida (1976/1997) refers to such artefacts as 'text'. The work of the analyst is to read such 'text' critically to open up and deconstruct its discursive truths.

The artefacts – 'text' – of concern for this paper are Swedish, Australian and American policy documents written between 1994 – 2003 (Berglund 2008). These three countries are all part of the so-called Western world that, to some extent, shares a common cultural and historical tradition, which might be called a Western discourse. The studied documents are thus located within this shared cultural sphere, even though there are local differences in the uptakes of values, resulting in different local practices. The selected texts (see document list in Berglund 2008:54-57) were published on Internet sites, which had lifelong learning as a prominent theme. The selection of texts recognise different kinds of lifelong learning settings and practices such as the national or state levels of government, schools, universities, adult education, liberal education, workplaces, libraries, and community centres. My assumption was that publishing a text on the Internet indicates a deliberate act of choosing *what* to publish, *when* to do so and to what *audience* the text is directed. As such, each document is regarded as a discursive expression of what an actor of some kind intentionally wishes to add to the general discussion of lifelong. The usage of 'policy-documents' – or 'policy-texts' – in this paper thus imply such a broad understanding of policy. The search for documents came to result in different kinds of policies in the three national settings as different emphasises are given to lifelong learning in these contexts. I interpret this as a signifier of different national discourses (Berglund 2004).

The understanding of policy-writing described above thus realises how language acts to build up representations of reality through rhetorical strategies (Potter 1996, Nicoll 2003). One of the main characteristics of policies is that they work to persuade an audience of some sort of 'goods', which make them hard to contest. Deliberate and persuasive rhetoric is thus an inherent feature of

policy genres (Edwards & Nicoll 2001). The documents studied for this thesis were created

either as policy tools for reshaping educational and labour market practices or as critical commentaries on such policies. They comprise rhetorical devices intended to persuade their audiences of the benefits of lifelong learning or, indirectly, support the policy-making processes by adding critical perspectives to the general (global) discussion of which lifelong learning is part. Policy texts, whether rhetorically expressing a positive or negative attitude towards their object of concern (e.g. lifelong learning), could therefore be studied as discursive artefacts (see above), or what Foucault refers to as 'schemas of politicisation' (1980:190). As such, policy texts are imbricated with power-knowledge that works to construct a 'grand narrative', i.e. imply an objective truth to motivate the kind of (political) action that the policy purports (Nicoll 2003).

A central idea of the study has been to conceptualize lifelong learning policies as stories. Drawing on Derrida and Foucault, any such 'text' could be read as a story of the specific time and context of which it is part. Such stories are not to be understood as 'grand narratives' in the Kantian sense trying to establish an objective truth, neither as subjective personal or anthropological narratives or life-[hi]stories, in the hermeneutic sense (Davis 2004, Ketz de Vries & Miller 1987). Rather, stories are understood in a poststructural sense as historicized artefacts of a specific discourse, dependent of the time and place where they appear. Foucault uses the expression 'a history of the present' (1977/1994), or 'an ontology of the present', referring to "those particular truths" which have come to be accepted (almost without question) as realities of and for the present era" (Jose 1998:3). The understanding and usage of stories in this paper refers to such an understanding of the historicity of social activities. Such stories express, or make visible, different forms of confessions and rituals of truth. They express how we think about ourselves and the world we live in at a specific time and place (Foucault 1979). At the same time they express how the desired and undesired future is conceptualized.

Conceptualizing policy documents as stories of the past, present and future is a way of deconstructing – pulling apart and challenging – the discursive constructions of truth; i.e. what is taken for granted as normal and abnormal, moral and unmoral. In short, asking what is put forward as desirable and undesirable within a specific context of use and how such truth happens to be

established there and then. Such discursive stories do not only tell us something about the time and place we live in, but how we as human

beings, are subjected by and subject ourselves to the truth-regimes of the discourses of which we are part. At the same time we also subject ourselves to the truth-regimes of the visualized future. Foucault refers to such subjectification as 'governmentality' (Foucault 2000b, Rose 1999, Dean 1999), i.e. the discursively produces mentalities surrounding the government of others and of self-government. Such a reading of policies indicates a power-relation between those with the authority to govern others and those in the position of being appointed as policy targets.

Ketz de Vries & Miller (1987) refer to the objects of concern for a study as 'text' in terms of a critical incident, an entity or a story, comparing the work of a researcher with that of a detective. In order to understand the world as 'text' analysts "need to interpret the way these stories unfold; meanings, consequences and motives behind acts, decisions and social behaviour" (p.234). Regarding the researcher as a detective is a risky metaphor since it may lead to perceive the results as true facts. Derrida (1976/1997), takes deconstruction a step further saying that deconstructing a text means to open it up by disrupting, or interrupting, its truth claims. A poststructuralist reading of policies also means reading what is *not* said (Foucault 1972). In other words, a discourse analysis of the past, present and future should ask questions such as "how is it that one particular statement appeared rather than another?" (Foucault 1972:27), which are the problems that are formulated and which are the responses that are presented as the solutions to these problems (MacLure 2003) and which other problems are thereby excluded? Other poststructuralist questions concern the discursive production of *the other* asking who is construed as the different, the excluded, the undesirable in different contexts and what makes such a construction possible?

Drawing on the works of Czarniawska-Joerges (1988), Furusten (1995), Ketz de Vries & Miller (1987), MacLure (2003) my study came to result in a three-step model: 1) *surface*, 2) *depth* and 3) *deconstruction* to open up the stories of lifelong learning. The first step consists of a surface analysis of the documents to establish the central themes in the policy rhetoric and analyse how rhetorical techniques are being used to persuade audiences of what is considered good by opposing it to what is held as bad. Initially I made a computer file for each national context: Sweden, Australia and the USA. The files

comprised a description of each document in terms of their specific character and the context of which they were part. This description contained the following headings: Document context, Headlines, Keywords central themes, Binaries, and Metaphors and phrases. These aspects taken together came to result in eight central themes (see below) expressing different motives for, and aspects of, lifelong learning: Each theme contained a large number of keywords. They resemble what Czarniawska-Joerges (1988) terms 'labels', which she describes as linguistic artefacts. Labels, or keywords, tell us what things 'are', i.e. naming and classifying them, showing that their meanings are taken for granted (Furusten 1995). The document context expressed the type of organisation that the document represented (e.g. political authority, education provider, enterprise or labour union), at what level and the kind of audience that it was directed towards. The headlines were listed as signifiers of aspects that the author/publisher appeared to hold of special importance, if judged by the way they were specifically articulated and singled out as headlines. I selected the keywords after reading through the document several times to get a picture of its intended messages. After being listed they were grouped into themes. The headlines and the keywords taken together came to result in eight central themes expressing different motives for, and aspects of, lifelong learning:

- Individual aspects
- Politics
- Economics/finances
- Labour market/work aspects
- Education, learning, pedagogy
- Efficiency and rationality
- Structural, societal and organisational aspects
- References to other countries, research and agencies

At the surface level I was interested in obtaining a picture of how these keywords and central themes were grouped in and between the different documents and national contexts. The surface reading gave me an overview of which themes and keywords that were on the agenda in each national context and thus function as signifiers of the discourse. The dimension that most clearly expressed the meaning and values given to lifelong learning was the analysis of binaries, which actually meant leaving the surface level and starting a deeper analysis of the rhetoric. At this stage I listed the binary oppositions expressed in each document in terms of what they expressed about past/present, real/unreal, scientific/ unscientific,

proper/improper, moral/immoral (MacLure2003:73-74). Analysing the rhetorical technique of using binaries in policy texts as a means of persuading an audience gave a good indication of what was considered as good and desirable versus bad and undesirable. The analysis of the metaphors and phrases, some of which served as platitudes, further strengthened the arguments made in the documents and contributed to establishing the main themes. Czarniawska-Joerges (1988) discusses how 'the normal' is established through such rhetorical devices.

The third step in Ketz de Vries and Miller's (1987) model is where the actual *deconstruction* of the texts is performed by confronting, i.e. is challenging, the earlier interpretations against each others. Such an approach thus takes its point of departure in what at a first glimpse seems to be a structuralist reading of what the text *says*, but since the model includes strategies to deconstruct, i.e. open up the text, it also has an ambition to analyse what the text *does*. To deconstruct texts means to challenge their truth-production (Derrida 1976/1997) and to go behind and beyond their surface (Furusten 1995). Deconstruction is not a method per se (Derrida 1976/1997), neither is there a single strategy by which deconstruction is to be conducted (Furusten 1995). The use of deconstruction in this study has been to examine and challenge what is said within the central themes that emerged from the first two steps of the analyses by using different theoretical concepts and mind-games as analytical tools to *destabilise the taken for granted meanings expressed in the policy rhetoric*.

RESULTS

The analysis shows that the emphasis on *learning* is a prominent signifier of the present. It reveals that learning as a policy aspect wishes to penetrate all dimensions of life: 1) the private sphere (learning for 'life' and the 'self', i.e. identifying oneself as a lifelong learner), 2) work (centred on employability = skills + knowledge as a mathematical function of the global market) and 3) citizenship (learning for democracy and active participation in society and civil society). These aspects are sometimes referred to as the *lifewide* dimension of learning (Cropley 1980, Rubenson 1996). Learning has become a normalized way of understanding our present to the extent that it has become almost impossible to think about ourselves, others and society without it. The policy rhetoric also proclaim learning as a *lifelong* endeavour. The emphasis on lifelong learning in the studied documents differ somewhat, though. In Sweden it is described as a matter of governmental concern

from pre-school and onwards. In Swedish policy 'lifelong' thus refer to the whole life span whereas in the USA and Australia it mainly targets adults after compulsory school (Berglund 2004, 2008).

Lifelong learning is not only a way of considering lifewide and lifelong dimensions, but a tool used for disciplinary and corrective purposes to foster 'good', i.e. capable, efficient and productive, citizens for the 'learning society'. This stresses *the societal*, and thereby *political, dimension of lifelong learning*. The present and future ideal society is depicted as a 'learning society' where 'the lifelong learner' is the norm (Berglund 2008, Popkewitz *et al* 2006). Being, i.e. behaving and identifying oneself, as a 'lifelong learner' has become the desired and necessary lifestyle within the learning society. Such an emphasis on (compulsory) individual subjectification to societal expectations aiming to cover all dimensions of life is another prominent signifier of the present. Or, in other words, using a quotation from Popkewitz *et al* (2006:436): "in different contexts and with different logics, the same story seems to be told. The story is that we are now, more or less, obliged to live with constant change in society. Modern schooling, for example, continually links the individual to narratives of social or economic progress and the revitalization of democracy that will bring personal betterment".

Further, the study at hand showed that 1) the present meta-discourse of lifelong learning is work-related rather than life-related. The focus on learning for work is a strong imperative. Life-related learning is supposed to support the economic competition on the Market, rather than vice versa. 2) The positive rhetoric of lifelong learning and its focus on ideal lifelong learning is accompanied by a parallel story of deviance, incompetence and failure in that it points out certain groups and individuals as target groups. This in turn leads to 3) a pathologization of those 'other' who fail to live up to the expectations of the ideal of the 'lifelong learner'. Since lifelong learning is referred to as the key to accomplish the learning society, also depicted as a 'healthy society', such pathologization simultaneously construes lifelong learning as a discourse of 'medicalization' where lifelong learning is regarded as a cure to restore the unhealthy 'non-learners' to what is implied in the policy rhetoric as the healthy state of the lifelong learner (Berglund 2008b).

In the mind-game of visualising lifelong learning as a medicalized discourse the professionals in education and learning, e.g. policymakers,

politicians, educational planners, researchers and management gurus act as expert ‘doctors’ who set up the rules of the game by reference to their professional expertise. Such professional position legitimizes the power/knowledge to distinguish the deviant from the normal, the healthy from the unhealthy the desirable from the undesirable and the moral from the immoral. The doctors of this level are designed for what Foucault (1977/1999) terms *hierarchical observation*. On the operational level, doctors make the anamnesis and diagnosis of the ‘patients’, i.e. identify and transform those who deviate from the norm of the lifelong learner. The doctors on this level operate for example as career and study counsellors, human resource managers and managers for different lifelong learning activities. By their position they are legitimized to ask the patients to tell their story of ‘illness’. The written documentation of the anamnesis makes every patient a ‘case’. This type of examination resembles what Foucault (1977/1999) refers to as *normalizing judgement*, which seeks to measure deviant behaviour and oppositional attitudes against the imperative of the norm. The medicalized discourse is also operated by ‘nurses’, i.e. teachers, educators, trainers etc, who take care of the actual treatment of the patient. To their help they have a number of techniques to cure the patients. Some techniques work to discipline the patient to reinforce the healthy signs of the lifelong learner, whereas other techniques work to direct the patient to become self-motivated. The patients are to subject themselves to the norms of the discourse, which Foucault (1988) refers to as *the government of the self*.

DISCUSSION

Present policy stories on lifelong learning use metaphors such as the learning society, the information society, the knowledge society etc to mobilise school-, workplace- and organisational reforms of different kinds in the making of a new world order that “expresses principles of a universal humanity and a promise of progress that seem to transcend the nation” (Popkewitz *et al* 2006:431). Such an understanding of the present is often referred to in terms of *neo-liberalism* or *advanced liberalism* (see e.g. Jarvis 2007, Rose 1999). “What is ‘new’ in the present is the particular amalgamation of cultural practice that fabricate ‘the social’ and individuality” (Popkewitz *et al* 2006:445). The past, present and future discourses thus produce certain ideas of the social and how individuals should subject themselves to the social domain. The “cosmopolitan way of life” (Popkewitz *et al* 2006) construes lifelong learners as ideal citizens of the learning society, but also inscribes the

“anthropological ‘Other’ who stands outside reason and its civilizing manners of conduct” (Popkewitz *et al* 2006:433). Cosmopolitan stories are thus about inclusion and exclusion and how the present neoliberal discourse, through the use of policy rhetoric, produces ‘others’ as targets for governmental techniques.

As referred to above the learning society is rhetorically depicted as a ‘healthy society’ in lifelong learning policies. The cosmopolitan lifelong learner thus resembles the healthy individual ... “The healthy citizen feels and acts with responsibility for their immediate and broader community as a personal obligation for the future and the society as a whole.” (Popkewitz *et al* 2006:444) ... whereas the ‘other’ is pathologised as an unhealthy citizen who is in need of treatment to be cured in order to be useful to society. As the ideal of the self-governed (learning) subject is significant for the present, a present normalised ‘truth’ is that such identities can be learned. This in turn creates docile, i.e. educable and teachable, bodies, which are construed both as objects for policy concern and subjects who can be taught to govern their lives in relation to the expectations of the present cosmopolitan ideals. The ‘unfinished cosmopolitan’ (Popkewitz *et al* 2006), who is at-risk of disturbing the reason of the ideal world order is thereby possible to reinsert in society. Lifelong learning can therefore be described as a project for national, as well as global mobilisation, not only to maintain the present cosmopolitan society, but to secure such a future world order.

Beck’s (1992) notion of the ‘risk society’ is a strong signifier of present lifelong learning discourses. The responsibility to avoid future social and economic catastrophes is associated with the power/knowledge of experts (Turner 2001). The potential risks legitimises lifelong learning activities to reinsert the undesirable others as cosmopolitan lifelong learners. Lifelong learning stories of the present with their focus on ‘risk’ also express a discourse of fear. Such discourses are significant in many meta-stories about the present. There is the risk of terrorist attacks, of pandemic diseases, of a stock-market crash, of environmental catastrophes due to the greenhouse effect etc. that, taken together, produces a global meta-discourse of fear. Paradoxically, lifelong learning discourses also produces the ‘other’ of fear, i.e. they tell stories of hope since lifelong learning is envisioned as *the* tool to solve almost any problem through its trust in education and in individuals who are or can be lifelong learners. As such, lifelong learning discourses also tell stories of liberation

(Simons & Masschelein 2006). I think this is where the discussion about re-framing the future ought to start.

CONCLUSION

A deconstruction, such as the one presented here, may help to identify problematic issues. The starting points for the future should be: things could be different! The question is how we visualize the future. What do we want? Who are 'we' who are in the position of framing and/or reframing the future? Which positions do 'we' make possible for the targets of policy concerns and how do we value those positions? The initial questions of this paper was if, and then how, we can envision present and future ideals such as a 'learning society' consisting of successful 'lifelong learners', without excluding 'others' who do not fulfil the norms of such a society. That is, how can we re-frame future lifelong learning as an inclusive discourse? Given the logics of discourse it may not be possible to think about the future without simultaneously producing 'others'. On the other hand, this does not necessarily have to be a bad thing per se. Having knowledge about how the policy discourse of lifelong learning produces different subjectivities as desirable or undesirable can give new insights and open up new possible ways to include people in the formation of the future.

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THE AUSTRALIAN POSTGRADUATE WRITING NETWORK: DEVELOPING A COLLABORATIVE LEARNING ENVIRONMENT FOR HIGHER DEGREE STUDENTS AND THEIR SUPERVISORS

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ABSTRACT

After a decade of rapid growth, most Australian universities offer writing courses, from undergraduate to doctoral levels. The Australian Postgraduate Writing Network provides a series of 'community of practice'-focused personal learning environments for postgraduate candidates and their supervisors in order to enhance their creative and professional skills and knowledges.

KEYWORDS

creative writing – research students –
collaboration – PLE

[a] complete learning environment will require a continual examination and evaluation of the reciprocal relationship between the philosophy on which it rests and the teaching conditions which are thought to be in coherence with this philosophy (Lian, 2000, p. 21)

INTRODUCTION

A combination of economic pressures, internal and external competition, and an increasingly customer-normed higher education sector is driving the need for better, more efficient and more sophisticated systems of delivery. This is evident across the academy, and our interest is particularly focused on the discipline of creative writing, especially at higher degree level. What are we doing, as a sector, to deliver best practice learning environments to our masters by research and doctoral candidates, arguably 'the jewels in the university crown' (Krauth & Brady, 2006, p.14)? What are we doing – an equally important question – to ensure graduate research students possess the capacity to function as effective citizens, committed to collaboration and knowledge sharing, able to communicate in a variety of domains, and invested in lifelong learning?

A great deal, from some perspectives, not enough from others. Progress has been hampered as creative writing research higher degree (RHD) programs face conditions that differ significantly from research programs in other parts of the humanities and social sciences, and that call for different approaches to the delivery of learning environments. One difference is these programs' youth. Though individual writing units have been offered in Australian universities since the 1970s, research degrees in writing are of much more recent origin, many of them dating only from the Dawkins era (1988 on). Since those reforms,

higher education institutions have seen rapid growth in programs offering creative writing, and in the numbers of students wishing to study in that area. Now more than 20 Australian universities offer a range of degree programs in writing, from undergraduate to doctoral levels. Almost as many again offer a wide range of undergraduate and/or postgraduate coursework units (AAWP, 2008). This growth should be understood in the context of what can be called the 'creative disciplines' – university units and programs in visual arts, craft, design, creative writing, the performing arts (drama, dance and music) and film, television and electronic media production. In 2000, some 4 per cent of all university course enrolments were in these areas (Australia Council for the Arts, 2003, p. 5), but latest reports state that this has grown to 6.5 percent – or 1 in 15 of all tertiary students in the country (Schipper, 2006). The most recent Australian government report on higher education enrolments, moreover, adds that while enrolments in most fields of higher education increased between 2004 and 2005, the creative arts was among the five that which experienced the most growth during this time (DEST, 2007, pp. 7, 9). Though RHD enrolments in writing tend to be small, demand for the courses has at least remained steady, and in many cases has grown, over the past decade (Neill, 2008).

While this expansion has offered many opportunities for research degree candidates in writing and their supervisors, the rapid growth has resulted in what Paul Dawson (2001) describes as a 'piece-meal' approach to teaching and learning and its underlying philosophies. Writing courses are delivered in English, communication, cultural studies, creative industries and fine arts programs; some focus extensively on literary analysis, others on professional practice, others again on aesthetic production. In the absence of a national approach to the teaching of this discipline, writing programs have been marked by inconsistencies in curricula, research paradigms, supervisory

relations, and examination standards. Part of this can be attributed to staff expertise. The difficulty students experience in finding an effective supervisor has been pointed out by postgraduate students (see North, 2005); while supervisors have also published on the problems associated with research degrees in this area (see, for example, Dibble & van Loon, 2004). The problem can be attributed to a number of sources. An important is that, as is the case for many creative (and indeed professional) disciplines, writing program teaching academics come to higher education from highly diverse backgrounds. Some are drawn from the community of practising writers, and provide excellent undergraduate and postgraduate teaching in how to write, but typically have little or no research training, or knowledge of how to supervise a candidate in high-level research. Others are professional academics drawn from cognate disciplines such as communication, media studies or literature. These staff often provide excellent supervision in traditional research methods, but typically do not have a background in what are becoming widely known as practice-led research methods (Gray, 1996; Gray & Malins, 2004; Barrett & Bolt, 2007). The situation is exacerbated by the small size of most Australian RHD programs in writing, the geographical distances between many universities, and the wide variety of research areas engaged in under the umbrella of 'writing'². These factors militate against the development of a community of creative writers in the academy, and have led to many students and supervisors expressing a sense of isolation from each other as well as from the wider creative arts research community (North, 2005; Sved, 2005).

The Australian postgraduate writing network: a case study

The Carrick Institute-funded³ Australian Postgraduate Writing Network (APWN) aims to respond to, and ameliorate, these difficulties by building on the strengths of creative writing RHD programs at a national level. These strengths include a genuine desire to collaborate

to solve problems in the discipline, as well as the creativity and flexibility of candidates and supervisors, and their high level of communication skills, especially in text-based media. Another strength is the very energetic national association, the Australian Association of Writing Programs (AAWP), now in its twelfth year. The AAWP's annual conference, its fully refereed online journal *TEXT*, and the network of national and international institutional and personal connections offer considerable disciplinary input and support to a large proportion of Australian academics and higher degree students in writing. The APWN aims to enhance this institutionally-structured, but very engaged, community, and direct its assets to the construction and maintenance of an environment that will nurture and support RHD writing students. The network's central aim is to facilitate the collaborative development of candidates' (and supervisors) personal, aesthetic and intellectual potential beyond the boundaries of individual universities.

Central to the choice of structure for the APWN project was a desire to embed the 'communities of practice' model of collaborative interaction (Lave & Wenger, 1991) within a web-based personal learning environment. To do so, the project team sought and utilised extensive input from the community of potential users (including research students in writing, their supervisors and examiners, professional and community associates, and industry representatives) during the network's development. Various aspects of a community of practice approach were important concepts in this thinking because such communities allow the refining, communication and shared use of knowledge that is essential to 'the kind of dynamic "knowing" that makes a difference in practice' (Wenger, 1998). Wenger and Snyder (2000) stress that such communities are stronger and more functional when members select themselves, while Lesser and Everest point out the importance of community input for sustained viability:

the community tends to set its own agenda over its lifespan, continually defining itself by the needs of its members. Communities typically take part in a number of formal and informal activities, ranging from education sessions and conferences to day-to-day interaction designed to solve specific work problems (2001, p. 38).

Alongside this community input, the intentional flattening out of conventional academic hierarchies (such as those of student/supervisor, individual/institution) that is supported by the community of practice concept was also central in the setting up, and the early life, of the

² These include biography and life writing, fiction and poetry, scripts for film and theatre, art writing and food writing, speculative and crime writing, graphic novels and artist books, and many other genres and forms. These may be based on any number of conceptual frameworks, including phenomenology, consciousness studies, identity, postcoloniality, performance studies, communication and cultural theory, literary studies, business and marketing, and narratology – the list goes on.

³ The Carrick Institute for Learning and Teaching in Higher Education; see their website at <http://carrickinstitute.edu.au>.

APWN. Recognising also Trude Heift and Catherine Caws' finding that collaboration in synchronous writing environments is 'fostered when less knowledgeable students work with more knowledgeable peers' (2000, p. 213), this smoothing out of rank was achieved by seeking, and utilising, equivalent levels of student and immediate past graduate input as well as that of supervisors, higher degree program coordinators and examiners.

Online communities of practice as learning communities

In planning and producing the APWN, we were interested in the harnessing the value of online communities of practice as learning communities (Lave & Wenger, 1991; Barab & Duffy, 2000; Rogers, 2000), exploring how they can be networked across individual institutions (Grisham, Bergeron, Brink, Farnan, Davis Lenski & Meyerson, 1999) and how such online communities can successfully reproduce the 'watercooler' conversations, classroom activities, and social activities that take place in the 'real' world (Wenger & Snyder, 2000, p. 141). Perhaps the best articulation of this concept, and its clearest manifestation in learning communities, comes from the comparatively recent notion of Personal Learning Environments (PLEs).⁴

PLEs, understood sometimes in a purely instrumental way – as computer programs – and, more interestingly, as a teaching and learning concept, provide students with a personal space in which to organise and conduct their own learning. Scottish educator, Ewan McIntosh recently described them succinctly, as:

where the platform for learning outside the classroom belongs to the student, not to the institution. It's where it is highly personalisable. That does not mean it is individualised, but for me it means that it is the individual choosing which elements are most important for them (in Murray, 2007).

This central logic of personal responsibility, a kind of freedom, and the value of meaningful student-directed learning – is central to the thrust of the APWN. In providing an electronic learning space personalised for each user, but where learning is both individual and collaborative, it recognises research postgraduate students' already-present capacity to learn, as well as their already-present ownership of their learning. It is both respectful of students, and entirely committed to academic values, including the

value of lifelong learning for both those who are formally students and those who are also involved in the learning journey involved in being a postgraduate supervisor or examiner. Such considerations are of central importance to anyone considering the axiological basis of higher education. As Pierre Bourdieu pointed out in his several publications on the subject (see especially Bourdieu, 1988, 1996), education is capable of transforming social relations by providing the whole population with both opportunities and skills. However, Bourdieu also makes it clear that education is as likely to reproduce social inequalities and social divisions as to ameliorate them. Any innovations in educational technology and/or pedagogical approaches need to bear this in mind.

PLEs have the capacity to rupture the negative patterns of higher education because they give students a sense of ownership over their own work, and provide a user community where students can build their own networks, their own knowledge archives, their own ways of negotiating their disciplines, curriculum content, institutional imperatives and ways of thinking and being. At base, therefore, whether considered as a software tool or an educational concept, a PLE must be driven by the user's needs; it must allow users to write, to aggregate data or other content, to access and manipulate their own materials; and must allow open, and at least semi-autonomous, engagement with learning. This makes PLEs particularly appropriate in the RHD context, where candidates already largely manage their own learning journey, under the mentorship of their supervisor/s.

Yet this self-management and self-direction may also exaggerate the already identified isolation that many research postgraduates feel and to which writing postgraduates, in particular, attest (North, 2005). This is where a final integral component of effective PLEs, that of communication and engagement with others, comes into play. Communication technologies are central to the cultural, social and political forms of contemporary life; and while it is possible to trace globalising tendencies across recorded history, as scholars such as Armand Mattelart (2000) point out, such tendencies have been intensified and quickened by the use of communication technology, something that has brought about, Manuel Castells writes, 'one of those rare intervals in history ... the transformation of our material culture' (2000, 29). For our graduates to function effectively in the contemporary world, they need not only disciplinary knowledge, not only skills with digital materials, but also a confidence and

⁴ Though virtual learning formally dates from as early as eighteenth-century correspondence classes, PLEs as such really only date from the 1990s with the increasing use of new technologies in education, and the development of electronic learning tools.

fluency in the values and practices of the online world. Ulises Mejias argues that the 'true potential [of social software] lies in helping us figure out how to integrate our online and offline social experiences' (2005). In an increasingly global and networked society, PLEs offer not only a culturally appropriate mode of learning, but also one that allows students to develop specific discipline-related knowledge as well as the sorts of skills and attributes that will make them better and more capable citizens and professionals after their studies: including collaborative modes of knowledge creation, sharing and review. In this aspect of our development of the APWN, we were motivated by the proposal articulated by Rafi Nachmias et al, that: 'a key characteristic of knowledge generating communities ... is the dissemination and mutual review of ideas and intellectual produce' (2000, p. 98).

The APWN contributes to the development of such skills, qualities and values through the logic of its networked environment. An eighteen month long period of iterative development and testing (a process that is still ongoing) has delivered a web-based domain in which research students work alongside each other and their supervisors and examiners in using, refining and constructing an environment in which their learning needs are met, and their learning is facilitated. In this, they have available to them a range of databases (including information on available programs, supervisors, examiners, and areas of research interest); lists of links to useful and important sites (including conferences, relevant journals, funding sources and employment opportunities); weblogs and email chat lists; workshop exercises and writing spaces; and occasional online seminars (for instance, on the publishing process for students and on supervisory practice for new supervisors). Perhaps most importantly, the APWN provides research students and their supervisors and examiners the opportunity to network with each other and to form their own communities of practice, outside the institutional strictures and structures of their own universities, but in an environment that is still driven by academic values and learning outcomes.⁵

In our development, we have sought to integrate the usual 'knowledge archive' function of databases with a strong drive towards facilitating knowledge creation. In this latter function, the social networks created by the APWN will both

cross-institutional boundaries, and use networking protocols (Peer-to-Peer, web services, email discussion lists) to connect a range of individuals, resources and systems within a series of personally-managed spaces. In this, the APWN's e-learning spaces do not seek to disrupt or take the place of the learning in which the candidate is engaged as part of their higher degree studies. The network, instead, seeks both to be individually supportive and to build a sense of shared purpose and direction with the end point of knowledge creation, sharing and review. That is, to allow user-members to collaboratively produce, disseminate and refine information in a continuous cycle, while still satisfying their own personal academic needs.

Although it is still in the final stages of development, the APWN already includes not only the searchable databases of relevant expert knowledge common to such educationally-focused websites, but also a forum for the discussion of areas of concern and a number of training mechanisms for both students and supervisors. Users can add new areas of inquiry and discussion, ask for online workshops in necessary areas, and propose to lead those workshops. This means that, unlike many such websites that are produced solely to *supply knowledge* in the form of a mediated archive, the APWN aims to *build a community of engaged co-learners*. As is already beginning to occur in the late development phase with a growing community of users, we envisage that, as the Network (and these communities) develop, users will not only utilise, review and refine, but also create a significant proportion of the content and user features of the site, and direct its future elaborations.

Sustainability

By mounting the APWN in the electronic domain, we have been able to exploit that medium's advantages: rapid updates, searchable sites; hotlinks to relevant points; low and sustainable maintenance costs; and speed of communication in both formal (we plan for workshop papers and a refereed publication of working papers) and informal (bulletin boards, chat rooms, weblogs and wikis) modes.

One of the problems of such learning environments is, however, that they are often developed in a flurry of enthusiasm but then remain static in terms of content, soon afterwards peak in terms of use, and then die. The World Wide Web is a graveyard of such inactive sites and here we return to the value of the underlying principles of communities of practice, and of PLEs. If the community has ownership of the

⁵ Until the APWN is launched and fully operational (from July 2008 onwards), we will not be able to report on the success of these tools and, indeed, that of the network itself.

site, *and* if the software works in a way that is both easy and useful, *and* if the community remains motivated by their own attributes, by institutional encouragement, and by an evident improvement in their skills, knowledge and confidence, we predict that the APWN should not just remain in use, but be dynamic and expanding. That said, we have not been able, of course, to test this in practice. We recognise that no software program, no community, no environment, either in the virtual or the 'real world', has an indefinite or eternal life. Research students and their supervisors are creatures of their times and their particular, individualised contexts. The context of postgraduate and research higher degree education is also rapidly changing in the face of political, economic and social change. With this in mind, we expect the APWN to function for its useful lifespan, and then face a natural death, as do all communities of practice. What is important, then, is that the community of practice which the APWN facilitates is sufficiently resilient, connected and aware that a newer type of learning community – perhaps a yet unknown mode of PLE – is able to be put into operation after the APWN itself no longer remains relevant or useful.

CONCLUSION

By setting up a networked, collaborative learning community using the framing rationale of a series of personal learning environments, the APWN seeks to service individual needs while providing a space for the establishment of an inclusive, supportive and responsive online community for researchers – both students and supervisors – in a relatively new field of higher degree endeavour. In doing so, the Network seeks to turn weaknesses (the wide variety of backgrounds, expertise levels and research interests; the small numbers of HDR students and supervisors at each institution and their isolation from each other) into strengths. The framing project rationale has been to attempt to exploit the potential of web-based communication technologies to increase real and ongoing collaboration and networking among students, academics and institutions. Providing a lively, intellectually grounded and supportive interactive online community for students, supervisors and examiners will, we hope, contribute to already identified disciplinary imperatives to improve standards, consistency, and information access across institutional boundaries. Moreover, once embedded in a series of Australian universities' research degree programs in writing, the Network will, we believe, provide effective mechanisms for the identification, development, dissemination and embedding of best practice in

the creative arts across the higher education sector in Australia.

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PLANNING FOR SUCCESS: REPRIORITISING, REPURPOSING AND RETOOLING WITH RESULTS

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ABSTRACT

This paper presents an organisational learning system implemented across a three year period within a multi campus tertiary library. It proposes a three stage system, framed within a reflective evidence based practice process to foster professional engagement and lifelong learning of staff.

KEYWORDS

Lifelong learning – reflective practice – evidence based practice – organisational learning

INTRODUCTION

Librarians' roles are increasingly complex, involving emerging technologies and exponential knowledge growth. As a result, organisations must implement lifelong learning strategies if workplace performance outcomes are to satisfy present and potential stakeholder communities. The focus of this paper is an organisational learning system introduced across a three year period, commencing in 2005, at Northern Melbourne Institute of TAFE (NMIT) Library. NMIT Library comprises six campus libraries servicing approximately 28 000 students and 1 500 academic and non teaching staff annually. The library focus is on vocational training and education but is now also responding to the research and academic needs of increasing numbers of vocational degree programs being offered at NMIT. Ensuing requirements for higher level research, referencing and electronic data support to faculties and students was the major catalyst for the introduction of an organisational learning system.

In addition, the Head, Library Services recognized the preceding decade of budgetary cuts and austerity in relation to publicly funded educational institutions, including TAFE institutes, had served to reduce the professional skill levels of library staff. It became a standard budgetary practice to replace a professional librarian with a library technician and while operating hours remained the same the service complexity, levels and responsiveness were eroded.

The organisational learning system recognised the need for a culture change within the department. Library staff had developed a narrow professional perspective, characterised by a "desk" mentality, reluctant to take professional risks or accommodate changes in library and education practices. The resultant organisational

learning system aimed to change this minimalist and detached attitude. Since the beginning of 2007 NMIT Library has undergone a paradigm shift moving from a reactive position providing standard library services to a proactive position creating a team of information professionals able to deliver targeted and specialised services.

This paper explores a change management process that occurred at NMIT Library based in reflective and evidence based practice resulting in a restructure of library staff and services. To illustrate this organisational learning system, we describe the three stage process of reprioritising, repurposing and retooling with the outcome of the development of a training culture and the encouragement of lifelong learning for staff. Library staff have 'learned their way to change' (Davis & Somerville, 2005) as they continue to search for opportunities to apply their expertise and further their knowledge and skills.

REFLECTIVE PRACTICE

Reflective practice provides a realm for analysis and evaluation of past practice to inform future behaviour (Grant, 2007, p.163). The concept of the 'reflective practitioner' coined by Donald Schon in 1983 claims that reflection is essential for survival in a technological, exponentially advancing world where theory and practice is subjective to continual change (Schon, 1991). Reflection is particularly valued within a professional context as it enhances learning from practical professional experiences and provides a platform for the process of lifelong learning (Watson & Wilcox, 2000; Booth, 2004).

Schon's work provides a model for self directed, experience based professional learning and development. He proposes two types of reflection: reflection-on-action involving reflection after an event; and reflection-in-action where reflection occurs during an event (Schon, 1983). Schon (1983) argues that reflection is the primary professional competence, which also provides the key to acquiring all other required professional competencies. It involves a reflection of 'patterns of actions, on the

situations in which (we) are performing, and...the know how implicit in (our) performance' (Schon, 1983 in Grant, 2007). This is true for the individual, team and organisation as a whole.

Brookfield (1995) supports Schon's notions stating that reflection leads to informed actions, a rationale for practice, avoidance of self blaming, emotional grounding, an enlivened learning environment and increase in democratic trust. Williams (2002, p.56) states 'Reflective practice helps to integrate the technical expertise of the professional with the personal and emotional qualities of the individual'. Therefore, reflection is critical for initial professional development, day to day practice and continuous improvement (Schon, 1983; Cheetham & Chivers, 1998, p.267).

EVIDENCE BASED PRACTICE

Evidence based practice (EBP) is founded within evidence based medicine on the concept that 'practice should be based on up to date, valid and reliable research' (Brice & Hill, 2004, p.13 in Partridge & Hallam, 2005). EBP emerged in librarianship through the recognition that librarians were supporting and facilitating EBP rather than practicing it, and as a result were 'failing to model what they teach' (Ritchie, 1999). EBP has gone through several interpretations within library and information science since the mid 1990's. The term evidence based librarianship entered professional vocabulary in 1997, and evolved to evidence based information practice and currently evidence based library and information practice (Eldredge, 1997; Crumley & Koufogiannakis, 2002; Booth, 2002). For the purposes of this paper, the term evidence based practice library and information practice (EBLIP) will be used.

Despite the variance in terms over time, Booth (2002) found all have similar defining characteristics including: a context of day to day decision making, an emphasis on improving the quality of professional practice, and a pragmatic focus on the 'best available evidence'. Eldredge (2002) discusses EBLIP as a 'movement that seeks to improve library practice by utilizing the best available evidence in conjunction with pragmatic perspectives developed from librarians' working experience' (p.72). In other words, EBLIP is the 'daily application of research into practice' (Pretty, 2007). In this way EBLIP supports the notion of lifelong learning as it is a perpetual cycle of learning for continuous improvement.

EBLIP and reflective practice are inherently entwined. Sackett (1997) identified five stages of evidence based practice:

1. Identification of a problem or question
2. Finding the best evidence to answer the question
3. Appraising evidence for validity and usefulness
4. Applying the results to a specific population
5. Evaluating the outcome

In 2004, Booth (in Grant, 2007, p.163) adapted Sackett's five stages into six, adding an additional step:

6. Redefining the problem

Reflection forms a significant part of the evaluation of change and a redefined understanding of the initial issue at both an organizational and individual level (Booth, 2004).

Booth (2003) proposes that reflective practice will supersede notions of EBLIP stating 'the long term future of evidence based information practice...lies not in a single minded focus on research derived evidence but in a more encompassing approach that embodies reflective practice' (p.70). He continues to discuss the future information professional as a reflective practitioner who draws occasionally on a toolbox of which EBLIP contributes (Booth, 2003, p.70). It is on this proposal from Booth of the reflective practitioner utilizing EBLIP that the organizational learning system presented in this paper is built.

ORGANISATIONAL LEARNING SYSTEM

The organizational learning system mirrors the EBLIP process with the additional step of reflection. Although reflection is embedded within EBLIP it is an additional step to emphasise its core focus in the organizational learning system used by NMIT Library. The authors have termed this the 'reflective EBLIP spiral'. This is a fluid spiral process, with reflection occurring at the beginning and end of the cycle. In this way it is closely associated with Booth's (2004) six stages of EBP.



Figure 1: Reflective evidence based library and information practice spiral
(adapted from Cotter & Spencer, 2007)

The organisational learning system emerged in three stages, each utilizing the reflective EBLIP spiral:

1. Reprioritising includes a renegotiation of organisational foundations and operations.
2. Repurposing occurs according to identified needs established from new and changed priorities and
3. Retooling happens to align staff thinking and skills with new strategic directions.

As the process is fluid, to some extent all three stages occurred concurrently. For the purposes of this paper, each stage is considered individually to allow contemplation for how each contributes to the organisational learning system.

Reprioritising

The impending introduction of degree programs in 2006 provided a vehicle for utilising the reflective EBLIP spiral. With a new client market, the adequacy and relevancy of the Library service was reviewed. It was determined that first hand evidence was required and as a result, in late 2005, the Head Library Services and a senior reference librarian embarked upon an industry skills placement in the USA to gather evidence of best practices. The placement highlighted, through the exceptional knowledge of the librarians encountered on the tour, the loss of professional skill and lack of industry understanding existent within NMIT library staff. The study tour became the foundation for NMIT rethinking the conceptual basis for its library service.

A multi-faceted organisational system emerged from an inclusive one year strategic planning process. First hand evidence gathered in the USA and research conducted into Australian tertiary libraries revealed a need for reprioritizing library goals and repurposing of staff. A cultural shift toward a training culture encouraging lifelong

learning was also identified. Core foundations of the library were reflected upon, providing the Library Management Team with the opportunity to immerse themselves in a comprehensive strategic planning exercise which encouraged discussions surrounding service values, goals and objectives. The aim was to achieve a closer alignment of the library with the teaching and learning priorities of the institute. This analysis provided a long overdue opportunity for key players in the library team to deconstruct the NMIT service philosophy and rebuild based on contemporary library principles.

Following this a SWOT analysis was conducted, an effective reflective tool for locating an organisation within its immediate internal and external environment. This process involved the Library Management Team reconsidering library purposes, processes, and relationships. The outcomes of the SWOT identified strengths in the area of the library as an embedded service within the Institute, and the adaptability and synchronicity of library staff. However, the SWOT also raised issues concerning poor communication, lack of stakeholder knowledge, and shortage of professional development. From this evidence acquiring and appraising process, the Library Management Team constructed a three year strategic plan and annual operational plan. The success of reflective EBLIP spiral was the unification of staff toward a common framing of the future through the reprioritisation of core goals and the establishment of a transparent structural foundation.

Repurposing

A top down approach was applied during the organisational repurposing stage due to outcomes from the overseas industry placement and a recognition of the high erosion of professional skills, confidence and morale. For the decade leading up to 2006 the Library Management Team comprised a traditional structure of a campus librarian at each of its six campuses, responsible for staff and budgets at a designated campus and as such tended to become quite parochial. The challenge was to unite the six independent librarians into a network of interdependent professionals. An intensive customised leadership program was developed for the team to enhance their self- knowledge, emotional intelligence, leadership skills and team building. It resulted in the erosion of barriers and led to the unification and cohesiveness of the team.

Continuing from the success of the leadership program, an external knowledge professional met individually with library management team

members to construct a professional narrative reflection. This provided scope for a critical reflection on past career experiences; professional self perceptions; individual and organisational strengths and weaknesses; and future goals. This reflective practice, reinforced with evidence already gathered, led to the re-evaluation of library management team roles. Commencing in 2007, the team transitioned to include five faculty librarians plus four specialist librarians consisting of an Information Services Librarian, Records Management Librarian, Teaching and Learning Librarian and Resources Librarian.

Retooling

With the development of a solid foundation and a reinvigorated leadership team attention turned to retooling all library staff in 2007 to regain professional confidence. The primary goal of retooling was to develop a training culture and encourage the lifelong learning of staff. The commencement of the Teaching and Learning Librarian role, responsible for the coordination of library information literacy programs, provided the opportunity to review delivery practices. The result utilised emerging technologies and professional presentations rather than conducting walk and talk sessions. Standardised library orientations were drafted with options for customising classes as required. All staff were trained in delivery standards in January 2007 and the new delivery format launched with the commencement of Semester 1.

The Teaching and Learning Librarian observed a variety of orientations to view the success of the delivery format and received initial feedback from students and teaching staff. After two months, focus groups with library staff were conducted to review progress. Staff commented on initial difficulties with new technologies and structure however overall found the changes increased their confidence, freedom and success in session delivery. This feedback, in conjunction with observations made by the Teaching and Learning Librarian, resulted in refinements to sessions and the development of customised orientation sessions for English language students.

This was complemented with library staff participating in a customized training program which also allowed them to complete three units from the Certificate IV in Training and Assessment. The program focused on improving presentation skills and facilitating learning in both group and individual situations. This included strategies for fostering inclusivity in the learning environment and provided a foundation

for understanding learning principles and styles. It also included strategies for providing feedback, and methods for reflection and self assessment.

REFLECTING ON SUCCESSES

The reflective EBLIP spiral framed within this three stage approach has fostered workplace information literacy and lifelong learning of staff. Library staff are better educated and understand the context of their role within the Institute, education industry and library profession. An awareness of librarian specialist skills has eventuated, increasing communication and collaboration across the library team. Lifelong learning has been achieved through staff reengagement and a commitment from management to ensuring ongoing support, training and development.

In November 2007, an external academic library consultant facilitated an external review of NMIT Library's organisational changes. Within her review Faculty Associate Directors and Heads of Department commented positively on the introduction of the new library leadership model, proactive nature of librarians and resulting impact on curriculum development and classroom delivery activities. The review findings also showed the new enthusiasm and engagement of library staff keen to get more involved in providing further support for faculty teaching and student learning. The increased autonomy and responsibility of lower level staff at campuses has also fuelled invigoration of involvement in operational processes.

This revitalization of library staff has increased commitment to roles and encouraged active involvement in the reflective EBLIP spiral, using it as a continuous improvement tool. The teaching departments have witnessed this singular shift in service delivery and are now demanding higher level services and more complex and collaborative project developments.

FRAMING THE FUTURE

NMIT Library has completed its first cycle of this three stage organisational learning system, based in reflective EBLIP. Due to the firm foundations now established, the second cycle commences at a higher level focusing on refinement and building upon continuous improvement and lifelong learning processes. It is through the continuous improvement process that commitment to lifelong learning is sustained.

Through the organisational learning system, the library has reached its benchmark for minimum performance standards and is looking to foster more involvement in the planning process across

all staff levels. For example, the library management team recognises that the mission and values derived in 2006 have since altered. It is proposed for all staff to participate in the redevelopment of library mission and values, through online feedback opportunities, focus groups and departmental meetings. This will ensure the collaboratively developed mission and values mimic and are embedded within the organisational culture.

As the Library Management Team have been repurposed, the next step is to repurpose lower level library staff. This has begun to be developed with the identification of skills and skill needs in a departmental skills recognition project. As the service continues to grow in complexity and need, staff will continue to be repurposed and retooled as necessary to meet changing requirements.

CONCLUSION

This three stage organisational learning system framed within the reflective EBLIP spiral employed at NMIT Library has provided a rich foundation for organisational development, change management, continuous improvement and lifelong learning that will provide ongoing benefits to the organisation, Institute and library profession in the future. Although this process occurred within an educational library environment, the three stage organisational planning process and principles of the reflective EBLIP spiral are easily transferable to any organisation. In the case of NMIT Library, this process allowed the development of services from a static, one dimensional, reactive service to a rich, multidimensional, proactive service. Through critical reflection of organisational foundations and evaluation of relevant evidence; reprioritizing, repurposing and retooling provides successful outcomes and a solid pathway forward for the future.

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POSTDOCTORAL AND EARLY CAREER RESEARCH WORK FOR FURTHER LEARNING AND INDEPENDENCE

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ABSTRACT

As an extension of PhD research training, postdoctoral or early career research work is essential in physics, leading to enhancement of research skills and learning of skills required in academia. Through interviews with ten postdoctoral and early career researchers, we explore their expanded and further learning and training towards being independent researchers who can create higher knowledge and skills in physics.

KEYWORDS

physics – research training – postdoctoral work – early career.

INTRODUCTION

There is a high level of international employment mobility in the field of physics (Vlachy, 1981a, 1981b). In fields such as physics, postdoctoral work—typically a minimum of 2–3 years of research, virtually a second PhD without a thesis—is a de facto prerequisite for long-term employment in academia. Where research employment is dominated by the universities, it can be the only path along which the graduate can attempt to remain in the field of their doctoral study. Due to the lack of research academic positions and high competition for employment in physics, it is not unusual to find researchers with six or seven years of research work experience working in a second or third consecutive postdoctoral position, or in other short-term academic positions. These relatively experienced, as compared with recently graduated postdocs, researchers can be counted as early career researchers (ECR) in academia. (Akerlind, 2005; Thompson, Pearson, Akerlind, Hooper, & Mazur, 2001).

Role expectations for postdocs are not universal, depending on disciplines and countries (Musselin, 2004). Their actual research work experiences vary from providing day-to-day technical support for other researchers through to fully independent research, depending on their supervisors and research circumstances. In Australia, postdoctoral work almost always consists of fixed-term research-only positions, usually at academic levels A (associate lecturer) or B (lecturer), equivalent to ECRs, below the senior C (senior lecturer), D (associate professor), and E (professor) levels in Australian universities. As junior faculty members, postdocs are involved in various research, teaching, and related administrative duties in academic practice (Thompson et al. 2001).

While the prevalence of short-term postdoctoral work certainly appears to depend on the short-term nature of much of the available research funding, postdoctoral and early career researchers (ECR)—at least those likely to remain active researchers—can demonstrate significant improvement in their research skills, including the ability to work productively in a team environment, preparation of requests for research funding, and the pursuit of further funding as well as teaching and supervision (Musselin & Becquet, 2008).

As there are no curricula for postdoctoral research workers, the level to which deliberate training is systematic is highly variable, from being non-existent, with the worker essentially left to self-train, to structured mentoring programs (Thompson et al. 2001). The distinction between doctoral and postdoctoral learning and research training is important for an understanding of the postdoctoral experience. We will present postdoctoral fellows' views and experiences based on their past research training experiences during their postgraduate studies in physics. This allows us to gain valuable insight into international views on research training, postdoctoral work in the discipline of physics as further research training, and attitudes towards research and academia across a broad international spectrum.

Academic physicists as lifelong learners

Physics research needs a range of scientific technical skills, either theoretical or experimental, and it is important for success to maintain the currency of, and to improve, such skills. From the viewpoint of basic technical abilities, a commitment to ongoing learning to solve problems, often associated with technical skills, is required. Perhaps more fundamental, physics research is driven by intellectual curiosity and desire for understanding about the world and universe (Benka, 2006)—physics research is largely the quest for learning through investigating the world and phenomena of interest, and developing further knowledge,

including improved theories and models of phenomena, and new experimental techniques. Research careers of academic physicists are driven and rewarded by peers' professional recognition about their scientific accomplishments (Merton, 1973), so this is often of great personal importance. The learning of the required technical skills dominates the undergraduate and doctoral training of physicists, but is expected to continue throughout their careers. It should also be noted that work in academic physics requires other academic skills beyond technical research skills: teaching, supervision, management, working in teams, and so on. An academic physics career may be differentiated on the continuum of learning experienced by students, as they progress from undergraduate studies, through postgraduate research work, to postdoctoral work, as developing more and higher skills and knowledge than before (Jarvis, 2004).

METHODOLOGY

Ten early career academics—eight postdocs and two early career researchers (ECR) with recent postdoc experience, of international origin from Europe, Asia, and South America—were interviewed about their postdoctoral academic experience in a research-driven university in Australia. One was female, and nine male. Ages were from 28 to 40. They had spent from six months to four years in Australia. Interviews were face-to-face and semi-structured. For example, they were asked to: distinguish their postdoctoral research work from their PhD work; and describe their current postdoctoral work in Australia and compare their current work with previous employment or research experience. They were recorded and transcribed, with interviewees approving the final version of the transcripts. Transcripts were analysed using thematic analysis (Braun & Clarke, 2006) focusing on the similarity and difference between postdoctoral work and PhD study on the basis of their personal learning experiences and perspectives on the job.

RESULTS AND DISCUSSION

Since the interviewees held postdoc or ECR positions essentially transitional between those of doctoral students and academic physicists, it was not surprising to find that postdoctoral learning experiences were also transitional, moving beyond the straightforward acquisition of scientific knowledge and technical skills, to a greater focus on learning to be independent researchers. Below, we outline the major elements of the postdoctoral learning experiences of the interviewees.

More independence and self-motivation

During PhD research training, a student's project is often a part of a larger project of the supervisor's team. This is common in science but much less so in social science and humanities (Delamont & Atkinson, 2001). In physics, postdoctoral work is clearly distinguished by greater independence and responsibility than during the PhD, with less dependence on the skills of supervisors. Postdocs can be expected to publish more, with less input from the rest of the team. To do that, self-motivation is an important factor for postdocs affecting their research performance.

...working towards your PhD is basically, you're working under your supervisor's wing. So, basically, you just have to be a good spokesperson for your supervisory research... Basically your supervisor tells you, okay, do this and this and this... But, working as a postdoc is different ball game. Whole different ball game (Postdoc 2)

...I have to be more self-motivated. Otherwise, it's just, I can't do anything... There is no one who forces me to do this, or that (ECR 4).

Probably they expect more from a postdoc... The last publication of my PhD, I did more by myself. My supervisor looked at it, put his name on it and sent it off. He gave some comments. What I expect to change is that at the PhD level, people tell you what's an interesting topic, and that you should work on it. But now, they expect me to come up with that myself (Postdoc 9).

Developing broader perspectives

Developing broader perspectives and exploring new research areas are further expansions of learning in postdoctoral work from technical learning with a short-term focus that dominates PhD training. During the PhD work, they were generally asked to solve problems involving mathematical or technical skills. To solve the specific problem, they were not necessarily required to have broader view about the project. PhD students often play technician roles that require strong attention on the solution of particular problems. During postdoctoral work, however, they are expected to develop broader research perspectives and come up with new ideas—postdocs are expected to play a role as beginning scientists, creating scientific knowledge, rather than only learning existing scientific knowledge and working as a technician.

...PhD should work to make the experiment happen, finding a short-term perspective for his experiment or his research line... the postdoc should start thinking about what's around the corner, and the PhD should think about how to reach that corner. Doing a PhD is more about technical attitude... The postdoc should start to think about what's next... The postdoc should surely work to make it happen, but also to give a broader perspective and new ideas. But these new ideas shouldn't be limited to new experiments. You can do new calculations; you should aim to give new ideas from which new research can sparkle (Postdoc 7).

A bridge between supervisors and postgraduate students

A student's PhD study is for his or her own learning. He or she has no responsibility to look after others' learning. Having interim positions, the postdocs or ECRs can be a bridge between supervisors and postgraduate students, with responsibility for others' work, including helping postgraduate students' learning. Particularly for busy supervisors with high demands placed on their time by teaching and administrative duties, postdocs and ECRs take a responsibility for others' work. Through this role, they have more opportunities to learn about physics as an academic discipline.

...You must be at some stage a supervisor for students, because you are a bridge between the lab and the supervisor... he [supervisor] can not always be inside the lab, so at this point, find literature, try to find new problems, and solve the problems you are working on now (Postdoc 6).

In your PhD, you're responsible for your own work; now you're responsible for other people's work... you have to worry about more, the grants and sufficient publications, and stuff. To keep the group going, to keep the experiments going, and to get the grants... Which you're not concerned about when you do your PhD...you just have to do research (Postdoc 3).

Writing research grants

The demonstrated ability to attract research grants or other funding is a key requirement for academic employment or promotions in research-driven universities (Boyer & Cockriel, 2001). In physics, postdocs and ECRs are often employed on research grants, and due to the limited research budgets available, obtaining such employment can be highly competitive. In

Australia, postdocs and ECRs can be involved in research grants in both direct and indirect ways. Directly, prospective postdocs or ECRs can apply as chief investigators for funding from research grants schemes, including individual university operated ones as well as Australian Research Council and National Health and Medical Research Council schemes. In this way, postdocs and ECRs can create their own (short-term) positions and are typically key stakeholders in such projects. Less directly, academic staff can obtain research funding, including salaries for postdoctoral researchers, and advertise the positions. Especially for the former path, it is essential to learn to write successful research grant applications, which often heavily depends on assistance and support by the supervisor, comparable to the way in which fundamental technical skills are learned during the PhD. Considering the highly competitive nature of research grants in Australia (Yates, 2006), this learning about grant writing is vital for physicists who wish to stay in academia and develop their careers.

Yes, it is part of the administrative life, to attract funding for your projects, to try to attract funds from funding agencies... I think they [postdocs] have to do that. It's important because, again, it's another learning stage of your life. When you get a permanent position, you have the knowledge to write a project, to know how to ask for money, how to attract funds. So it's good to do it now, because you have a supervisor to correct your work. Then after you have got a permanent position, you don't have anyone to help you. So it's very good to do it now, to correct mistakes and so on (Postdoc 6).

Intellectual and physical challenge

In physics research work, learning and knowledge creation take not only intellectual but also physical demand. For example, when postdocs or ECRs involved in various experiments, this demand is higher because experimental work is unpredictable with from small to big scopes of problems. Either to prevent or solve the problems, experimentalists in postdoc or ECR positions have to prepare themselves. It can cause tiring and frustrating. However, they take this challenge in a positive manner, satisfying. Individual satisfaction by learning more or new through solving the challenging difficulties drives work performance.

...it's my first postdoc, and I would define it as 'tiring'...There's lots of work to do, but I'm happy like this. It's satisfying. Very tiring and satisfying... As a postdoc, if you get something going well, here, surely

something is going wrong in another place. And you have to move there, and solve the problems. And so, it can be frustrating, because there are always troubles going on. On the other hand, it's more satisfying, because you're not only working on your project, it's the work of the entire group that's going on. And you feel that you're giving a broader contribution... And that you are building up something more important, greater than your previous work... It requires you to be here on holidays, sometimes, and late at night. Which is something that you might have to do when you're a PhD, but it's ordinary life when you're a postdoc (Postdoc 7).

Research freedom in academic physics

However, the challenge does not prevent them from performing physics research. They are likely to take it as a part of enjoyment of research freedom that is a primary value for academic science careers (Fonseca, Velloso, Wofchuk, & de Meis, 1998) and physicists' desire and self-commitment to know or learn about universe and world nature (Hamer, 1925).

...also for trying to set up not well established technologies. Here, you get more funding to risk.... More money to risk. To make that about new technologies that may be viable in the near future... (Postdoc 7).

I'm working on something and it doesn't matter, what kind of potential it is in. It's just doing something that is interesting. Yeah, that's basically it... I had quite a lot of [research] freedom,... (Postdoc 1).

Given that passing through PhD study indicates undertaking an enculturation process in the discipline (Delamont & Atkinson, 2001), higher expectations on performance are reasonable. In this sense, research training in physics, from undergraduate and PhD studies to the mature career, forms, in some ways, a continuum.

CONCLUSION

Postdocs and ECRs in academic physics are a lifelong learner group via academic professional development who are self-motivated, with a commitment to maintaining skills and gaining new knowledge through research, throughout their whole career. Their research training is continuing on a learning continuum from their PhD studies to independent scientists with highly specialised research skills to create new knowledge in academic physics.

Two prominent features of the changes one sees along this continuum of learning are, firstly, a shift from knowledge acquisition to knowledge creation. This may be a fundamental difference from other highly knowledge-based careers such as medical doctors and engineers in the continuing professional development of professionals in the workplace or in-service programs to learn and use the knowledge in order to provide public services (Storer, 1966). In particular, the act of knowledge creation—a key element of research in physics—is active, and independence and creativity are important. This is a major difference from the typically more passive undergraduate learning experience. It is useful for postdocs and ECRs (and perhaps even PhD students), and those who supervise them, to be aware of this transition.

Secondly, there is a broad range of skills required for successful work in academic physics beyond the scientific knowledge and technical skills that are the focus of undergraduate and postgraduate learning and training. Such skills include both specific tasks such as the preparation of research grant proposals and the preparation of publications, and more general skills such as the management of research groups, working in a team environment, supervision, and teaching.

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“WHAT BROUGHT YOU HERE?” INTERNATIONAL POSTGRADUATE STUDENTS’ PERSPECTIVES

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ABSTRACT

We investigate motivational factors for studying physics in Australia through interviewing eleven international physics PhD students at a research-driven Australian university. They are academically competent and enthusiastic and likely to be different from the majority of undergraduate international students. This may provide different perspectives about young adult international learners who are underrepresented in the higher education literature.

KEYWORDS

international students – PhD study – motivational factors – scientific elites.

INTRODUCTION

Physics is categorised as the hardest of the hard sciences (Blackmore, 2007; Hooker, 2004) with four sets of institutional imperatives—universalism (impersonality and objectivity), communism (common ownership to share the products), disinterestedness (curiosity driven and enthusiasm for knowledge), and organised scepticism (empirical and logical) (Merton, 1973). A high level of intellectual competition is traditional and typical in the science community, with a hierarchical stratification, with, for example, Nobel Prize winners as the elite (Zuckerman, 1977). In this context, PhD study in physics is likely to be just the basic learning to begin to be a scientist and the beginning of apprenticeship in the research field.

In world science, international travel and communication are common among physicists, to solve scientific problems and share knowledge (Benka, 2006). This mobility suggests the possibility of strong internationalisation and globalisation of higher education, and international competition in research, in science fields such as physics. However, international students are often viewed as a homogeneous mass, with deficiencies in English and unfamiliarity with Western learning styles (Asmar, 2005). Despite different academic requirements at different levels of study, the majority of international students in English language courses, undergraduate, and coursework postgraduate levels, whose main goal is often the acquisition of professional or degree qualifications, are often included together with research postgraduates who aim for higher academic achievements. The heterogeneity of international students at the postgraduate level and the motivational factors for their study abroad are simply ignored. As a result, prevailing

views of international students in higher education, such as being English-deficient, or having a passive learning style dominate—competent and highly skilled international students in research work at the postgraduate levels are typically underrepresented.

In particular, an active effort to improve the status and recognition of the research-driven universities in higher education markets could be of enormous future benefit for all Australian universities. One cost-effective strategy in which this might be achieved is to court more academically competent international students from other countries. These competent students can be potential collaborators or partners to build long-term high-value international links, contributing to internationalisation of Australian higher education both academically and economically. For this strategy to be successful, these academically competent students must receive high-quality postgraduate research training in the Australian universities. To provide high-quality postgraduate research training, as the first step, Australian education providers or educators have to know about the customers—who they are and why they choose the particular discipline in the Australian university. In this study, we investigate factors influencing international PhD students in physics in an Australian university and their motivations

Motivational factors for study abroad of PhD students

The motivation of international postgraduate students has been little reported in the literature. However, Ichimoto (2004) presented motivational factors for four postgraduate Japanese women studying in Australia. Both push (subordinated women’s social position—conditions in home country) and pull (academic desire and career development—individual needs) factors appeared. The investigation of a range of personal (pull) factors of international students along with home country (push) factors

is an important part of understanding adult international students and their social contexts.

At the postgraduate level of study, cognitive intrinsic learning motivation (e.g., curiosity and the desire to understand and solve problems) (McInerney & McInerney, 2006) cannot be separated from contextual extrinsic motivational factors (e.g., rewards, better future options, support from family or partner) because postgraduate students are often economically independent adult learners, rather than dependent school learners. Therefore it is vital that individuals consider the balance of these intrinsic and contextual extrinsic factors when making final decisions about studying abroad.

METHODOLOGY

Eleven international PhD students in physics at a research-driven university in Australia, from Europe, Asia, Africa, and South America were interviewed about their motivations for study abroad in Australia. All interviews were one-to-one semi-structured interviews, and recorded and transcribed. Transcripts were reviewed and approved by the interviewees. Thematic analysis (Braun & Clarke, 2006) was adopted, supplemented by narrative analysis (Fraser, 2004) to explore the participants' individual motivational factors in physics and overseas study.

All eleven interviewees were male, from 26 to 36 years old. The time spent in their PhD study at the Australian university varied from three months to three years and five months. All of them were receiving scholarships from the host university in Australia or their home countries. Four out of the eleven had industry work experience (e.g., as engineers) before their PhD studies. The others had academic employment experience such as university lecturers, teaching assistants or tutors, and research assistants.

RESULTS

Multiple influential factors on study abroad motivation—learning science, seeking life experience, learning English, and other factors—were reported by the students. No single factor is dominant in their study abroad decisions, which are based on a combination of these factors, along with their particular personal and social circumstances. Students from developing countries are likely to be more focussed on the acquisition of advanced knowledge and working in a stimulating intellectual environment because of the lack of study or research resources in their countries of origin (e.g., library facilities, experimental facilities, and financial support for

postgraduate students, for example, to attend international conferences). Some students from developed countries also consider the opportunity for different life experiences in Australia, and consider their past education, learning, and prior research training in their home countries to be good (e.g., publication experience in high-quality journals, a high level of mathematical, scientific, and technical skills training, and good computational resources).

The international students, in general, follow their genuine interests in physics. This enthusiasm for learning physics is a fundamental motivation for them. This is shown even more strongly by some students with prior work experience in industry, leaving well-paid jobs in order to study physics for many years.

...in high school, I was really interested in the sciences...so when I got out of school I was like, I really want to do something in science. But as I said, in [home country], the trend is that everyone becomes an engineer or everyone becomes a doctor. So if you go look for financial or monetary considerations... Now it's time to do something which I'm interested in. I've already done what my parents were interested in... I was earning a lot of money. And I knew that in about four or five years I could really earn a lot of money. I felt that it was kind of not very challenging but I also felt that in a few years, I'll just burn out. Because I didn't feel that I had a really strong motivation to do some nice work there (interviewee 11).⁶

PhD study in physics is often seen as an apprenticeship for technical learning in their specialised fields. To maximize this, it is often desirable to be exposed to and try various approaches, as used or developed by different scientists or research groups. The value of learning by interacting with scientists in different countries is highly appreciated by these international students in their physics apprenticeship.

It's a great opportunity to get to know people that, if I had stayed in [home country], I would just listen about, but would hardly have the chance to interact with. The interaction with these people is an invaluable thing, because it seems to me to be the only way to really understand different approaches to science (other than your own) (interviewee 8).

⁶ Quotations are taken from the interview transcripts.

...To get an international perspective of physics...that's one of the reasons why I value overseas study. Just to get an idea of what's going on globally (interviewee 1).

Overseas experience was also seen as valuable to potential employers, as expected in the light of the international and mobile nature of European higher education (Maiworm, 2001; Wachter, 2004).

... the professor [at home university] got an offer from another university...and that I could do a PhD in [a place at home country] and I had no inclination of going to [there] whatsoever... she [girlfriend] said that going abroad would be an option. And I said I think it's more interesting to go see the world rather than going somewhere else in [home country]... That you show you're flexible and mobile and willing to take risks or certain steps for your job... (interviewee 9).

A well-known research group or the research leader's reputation was a critical factor in choice of destination for PhD study in physics. This finding accords with a previous study on international research internship students in physics (Choi et al., 2007). It seems reasonable given that the level of individual scientists' capacity and accomplishment are laid out in the pyramid of stratification, with Nobel laureates at the top (Zuckerman, 1977).

The availability of a scholarship is an essential factor to attract students for PhD study in Australia, in competition with other advanced science countries such as USA, UK, and other European countries. As indicated earlier, physics is regarded as a difficult subject and does not attract many students. A quick response to the international student's application is a preferable factor. In addition, prior positive short-term experiences such as exchange-student experience during high school or an internship experience during undergraduate study affects their PhD study decisions.

...I was actually planning to go to [country]... I knew that there were really good universities in [country] which have a good reputation in my country...I got this scholarship to come here [Australia] first. I was actually processing my stuff for the [country] but it was going to take longer... (interviewee 3).

DISCUSSION

The findings show that, overall, the factors underlying the decision to undertake international study in physics as adult protégés are not universal. Although personal enthusiasm

for science learning (e.g., a genuine personal interest in a particular field of physics) drives the students towards postgraduate study and their PhD in physics, other social factors (e.g., international reputation of the particular research group or individual physicists, availability of suitable training in their home country, the influence of partners, desire for overseas experience, the availability of a scholarship, quick responses to email communication, and prior positive short-term exchange or internship experiences) affect their final decisions for study abroad in physics. In particular, the research reputation of the host research group, rather than host university name "brand", is important (Choi et al., 2007). The offer of a scholarship for international PhD students is almost essential.

Prospective PhD students in physics consider different life experience and improvement of English language. However, these life experiences and English language factors are not the main factors for international students in physics. This may indicate a clear distinction between students in physics and others in non-science or soft-science disciplines, and also between academic elite students and the bulk of international students seeking undergraduate or Masters degrees or improved English language skills. These findings concerning the varying characteristics of international PhD students in different disciplines accord with the research of Wright and Cochrane (2000) in relation to timely successful PhD theses submission in the UK.

CONCLUSION

International PhD students' motivations for studying physics in Australia are multidimensional. PhD study in physics is the beginning of an ongoing process of learning science and research. Providing a high quality research education and rewarding experience in Australian higher education will benefit both students and higher education providers, with direct research output and the forging of long-term international links.

Knowledge of the motivations of students is an essential first step in delivering a satisfying experience that addresses these motivations. This can operate on a number of levels. Firstly, supervisors and other staff responsible for research training and supervision can focus better on what students might be seeking. Indeed, the awareness that students can have a diverse range of motivating factors, and that the motivations of international students can vary greatly, and differ from those of domestic students, can lead to an active attempt to learn more about motivations in individual cases. Secondly, at an institutional

level, the promotion of individual programs can be supported by information on the motivations of typical international students. Finally, if prospective students consider their own motivations more consciously, they can better judge to what extent they are likely to be satisfied by postgraduate research work at a particular institution or with a particular researcher or research group.

From the perspectives of the students, they are making a significant investment in time and career development, as adults, aiming at a career in research in physics, in academia or industry. Some of the interviewees had returned to study from well-paid industry work, seeking greater career satisfaction and intellectual stimulation. In many ways, this is a remarkable gamble, given the highly competitive nature of the job market in research and academia in physics, indicating a high level commitment to further and lifelong learning. At the very least, there is a demand for the deliverers of this experience to attempt to meet the expectations of the students, who make a significant contribution to quantitative measures of research productivity. Can this be done in the absence of awareness of the expectations?

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UNIVERSITIES AND SENIOR LIFELONG LEARNERS: QUO VADIS?

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ABSTRACT

Students aged 60 years and older who attend university are generally less concerned with vocational training, and more interested in studying for interest and pleasure. Australian universities may have to consider how to advance lifelong learning opportunities for such students. This paper examines and discusses the need for universities to be more senior student focused.

KEYWORDS

Senior aged learners - sapiential learning – university massification – participation barriers - gerontology

INTRODUCTION

The concept of lifelong learning contains the idea that learning is integral throughout life and that it can involve many forms of educational experiences. The lifelong learning concept perceives education to be more than just the acquisition of skills and qualifications to include learning for interest or pleasure (Kerka, 2003). Universities are well recognised as institutions that facilitate lifelong learning needs of many people, from young school leaver undergraduates to mature age students and post-graduates. An underlying assumption is that these groups are generally there for vocational reasons seeking or upgrading qualifications for use in vocational areas (Coaldrake & Stedman, 1998). However, there is growing evidence of people 60 years of age and older (defined for the purposes of this paper as *senior students*) who attend universities for non-vocational, sapiential or serendipitous reasons (Kim & Merriam, 2004). These senior students may be full time or part time students studying for an award or attending for non-credit learning.

Notably, many older Australians *are* already choosing to study at university. In an international comparison of educational participation rates for OECD countries in 2003, Australia had the highest university enrolment rates in the age group 40 and over (ABS, 2003). In 2001, of Australian university students 60 years and over, 44% of awards were for undergraduate studies and 56% were for post-graduates (ABS, 2003). If Australian universities wish to engage senior students, they need to change how they view, accommodate, and encourage them at their institutions (Edwards et al., 2002), as a variety of internal and external pressures are forcing a review of long held and treasured practices in Australian universities.

The “massification”(DEST, 2003) of higher education means that universities have entered a corporate world where their product is developed, marketed, scrutinized and sold with ever increasing amounts of accountability to the stakeholders. Another dimension to the changing scene of university life is that a sense of competition between providers of higher education has crept into decision making. Accountability of universities as public resources in respect of use and funding practices that scrutinize and underpin university activities and funding, means that the senior student sector of the university, a generation who funded academics and the institutions, cannot be ignored, overlooked or have decisions about their education made in a vacuum (Cook, 2005).

Discovering what senior students think about their University experience may help inform stakeholders in higher education about appropriate policies and practices for this growing cohort. This information may be of benefit to current and future students and educators, to the institution they attend and to the community, as it can be used to either remediate and modify practices which inhibit full and meaningful participation in university life, or it can illuminate and promote those elements that encourage senior Australians to participate in and enjoy the benefits of a university education. This paper will examine perceptions about senior students at university, why universities may need to consider senior students in framing future directions of their institution, and suggest how and why they need to do this.

Literature review

Literature on senior students attending Australian universities is almost non-existent, perhaps because there is a broad definition as to what constitutes older students. ‘Senior students’ are generally categorised with the ‘mature age’ students possessing an age range from over 21 or over 25 year olds up to 60 or 65, after which they are allocated a separate ‘other’ category. Research on ‘older’ undergraduate students at university have tended to consider senior students as “non-traditional” (Bean & Metzner,

1985), or as being categorised as ‘mature age students’ who did not continue after high school graduation (Candy, 1995). In light of the lifelong learning concept of moving in and out of education throughout one’s lifetime according to one’s changing situation, needs and desires, it may be better to consider chronologically older students at university as *senior students* than as aged or elderly students. The low visibility of senior students and their needs at Australian universities may in part be due to their relatively small numerical representation. It may also be due to a lack of recognition by university authorities that the senior students have any acknowledged significance

The lack of a clear definition or acknowledgement of senior university students is problematic on a number of levels. Firstly, there appears to a sense of “invisibility” for senior students which imply that they are not considered important enough to warrant attention. Secondly, in ignoring senior students as a ‘different group’ from the universal label of ‘mature age’ student, means that qualitative differences in their needs and experiences at university are overlooked. Senior students are more diverse than younger students in their motivations, needs, expectations, and experiences of higher education (Richardson & King, 1998). Thirdly, stage of life and developmental differences amongst a heterogeneous student body may mean that senior university students cannot be considered the same as many of their student peers (Britton & Baxter, 1994; West & Eaton, 1980). Literature on the need for inclusiveness and diversity in Australian Universities falls short in including senior students as a recognisable group who may wish to participate in higher education (Blackmore, 1997; Coaldrake & Stedman, 1998; DEST, 2003).

Theories about older adult learners point to the need for closer examination of their learning needs (Roberson, 2002; Swindell, 1993; Truluck & Courtenay, 1999), with a view to improving content and delivery for effective and suitable educational programs, including self organized programs, that meet those needs (Weaver, 1999; Wilson & Kiely, 2002). The absence of related research about Australian Universities is telling.

Literature on older adult learners covers elements relating to education for and about health, for training, and general interest, and for short courses that evolve and devolve according to need and interest. This can range from learning through an Open University, through distance education, through University of the Third Age to learning in a retirement village (Kim &

Merriam, 2004; Swindell, 1993). Research on theories about older students typically considers the senior learner within a framework of ‘ageing’ rather than as an older student (Jarvis, 1992; Maderer & Skiba, 2006). Consideration of and understanding of senior students who are competent, confident, and healthy enough to be admitted to study at university is vital for equitable, effective and sustainable delivery of learning opportunities for this set of lifelong learners.

The Role of Universities in Providing Lifelong Learning Opportunities for Senior Students

With Australian universities deemed as an ‘industry’ by the High Court of Australia in 1983 for arbitration and conciliation purposes, it is logical to note that the core business of universities is that of a commercial, profit making entity. The significance of these changes to the operation of universities has meant that the notion of universities being a place of non-instrumental liberal education where an ideal of ‘education for its own sake’ may be sustained, has been subsumed and transformed by market driven imperatives and governmental directives (Scott, 1999). The shift in emphasis from social democratic ideals to the rhetoric of efficiency and economic probity has seen an intensifying of the idea of a university education as a means of social mobility to the weakening of any sense that it could be a means of self-direction and self realisation. The ‘creeping credentialism’ that has discoloured the concept of a liberal education underlies the delivery of courses that increasingly have a vocationally oriented focus (Edwards, Ranson, & Strain, 2002). There is little evidence of consideration of the effect that such a mindset has upon lifelong learners who wish to attend universities for reasons other than for career development.

Growing numbers of senior students at Australian universities may exert pressure on universities for an examination and consideration of their needs. Australian higher education levels indicate that 8.4% and 4.8% of people born between 1946 and 1955 had attained a higher degree or diploma respectively, while people born between 1956 and 1961 figured at 6.3% and 4.2% respectively (Kahlert, 2000). The implication of such trends is that these people are most likely to be interested in pursuing and undertaking educational opportunities at university because previous educational experience acts as a predictor for a desire to be involved in continuing learning (Kim & Merriam, 2004; Mehotra, 2003; Schuller et al., 2002; Truluck & Courtenay, 1999). In anticipation of a growing movement of older

people wanting their learning needs met at a university, Coaldrake and Stedman (1998) suggest that:

...the modern challenge to the medieval institution of the university has turned about; universities find themselves faced with demands for life-long learning, but this time there are demands for education to be made available easily and cheaply and sold to a commercial market (p.27).

Considering senior students at university

In order to attract and sustain senior students at university, and in order to help them to engage in meaningful lifelong learning activities, a re-examination of the purpose of universities may help universities to thrive and develop through the presence and involvement of older learners within their learning community. While some Australian higher education researchers have noted the value of attracting senior students to university, the push-pull forces of government policies and funding, changing demographics, e-education systems are some elements that are helping to create what Assiter (1996) terms as the inauguration of a 'post-modern university'. The idea of a 'post-modern university' is where the understanding of an academic community is broadened to include the concept of lifelong learning that is responsive to the needs and wants of a broad base of students. This representation suggests that current practices and directions of universities are increasingly becoming outdated and in need have review.

Situating universities within the spectrum of lifelong learning requires a broad and inclusive approach to policies and actions by university administration and academics, as the conventional view of learning as the transmission and acquisition of knowledge and skills tends to overshadow the broader sense of learning as personally transforming and valuable for its intrinsic enjoyment (Withnall, 2006). Rather than concentrating on more passive and utilitarian notions that universities are for the acquisition of knowledge and skill for vocational purposes, an approach that is "...more consonant with the needs of civic participation and of agents capable of generating change for themselves" (Edwards et al., 2002, p.257) may be effective for the positive development of 'post-modern' universities. The 'marketisation' of universities calls for long range strategic planning that analyses the changing student environment with the view to improving the efficacy of the organizational systems of marketing, delivery and control. Marketing and promoting lifelong learning opportunities to senior students based on viewing them only as consumers would be

flawed, because it not only lacks vision and leadership, but it may also have an opposite effect of deterring the older learner from engaging with that university (Manheimer, 2002)

Revealing the extent of barriers to learning for older learners at an Australian university in regards to *situational barriers* (those related to one's life situation at a given time), *dispositional barriers* (attitudes to self as learner), and to *institutional barriers* (practices and procedures of the university) (Cross, 1981) can assist in both the remediation and prevention of the restrictions currently encountered by senior students and help inform planning for future directions of the university. The prevalence of institutional *ageism* is an inhibitor to senior learners (Moody, 1998; Weaver 1999) that may need to be addressed by universities. Structural phenomena such as *credentialism* may discourage potential senior learners and fails to fully meet broader needs of the individual and the community (Adult Learning Australia, 2000).

Time for a change

The idea of university students as clients puts pressure on academics and administrators to provide a service to them. University staff may need to understand their professional responsibilities and to keep up to date with 'best practice' ways of delivering this service. Staff will also need to acknowledge the diversity of the student population by taking a 'pastoral care' approach to dealing issues that affect their learning, not just as a safety net or an add-on, but as connected to key learning outcomes (Dunkin, 2002).

A student responsive curriculum that is based on sound educational principles and an understanding of the changing social context of a university will help in the effective addressing of student needs and concerns (James, 2002). Universities should not become like a qualification drive-thru of devalued credentialism, but rather an institution of flexible authority and integrity. "Students are active subjects in their educational experiences, as well as objects in relationship between institutions and government or commerce entities" (Byron, 2002, p.45) Adopting a "client-centred" approach that seeks to discover, understand and act upon the needs and wants of the "end-user" of the educational "product" not only makes commercial sense, but also is a sound philosophical and ethical approach to meeting the objectives of the university as presented in the corporate 'Mission statement'. Consulting with senior students about their university experience is not about handing over control to

an interest group. It is about fine tuning those areas of university education that attract them and lessening those areas that inhibit them.

Adopting a Gerontagogical approach to discovering how universities can best engage senior learners may remove the tendency to objectify senior students as a group and allow for them to be the subject of enquiry. Evolving out of discipline of Educational Gerontology is the concept of Gerontagogy (Lemieux & Martinez, 2000). The use of educational intervention for the elderly, the hallmark of Educational Gerontology, while admirable and useful is problematic in that it links education *to ageing* rather than to *older people* who are in a teaching/learning context. In Gerontagogy, attention is focused on learning done by senior students and of the educational practice for senior students, not as part of the ageing processes, but as part of teaching and of learning of people. Gerontagogy is student focused and situates its examinations in the 'sciences' of education, using gerontology and andragogy as part of a collection of multidisciplinary tools, rather than as discrete approaches that are simply juxtaposed and compared.

A Gerontagogical approach recognizes the important understanding that lifelong learning is *about people* who have been acknowledged by a tertiary education institution as having the necessary qualities to be able to study in formal academic university courses. Finding and implementing senior student-friendly policies and practices in consultation with their "customers" may help to avoid the inefficient use of university resources, advance marketing opportunities and increase and maintain "customer satisfaction". Employing Gerontagogy as a tool to help in the understanding of senior students' needs and wants may assist university authorities to take a broad and ecological view toward learning as indeed being lifelong.

Universities and senior students: Quo Vadis?

In seeking an answer to the question, "Universities and senior lifelong learners: Quo Vadis?" it may be illuminating to consider the question "for what purpose and for whose benefit does a university exist?" (Coombes & Danaher, 2001). Traditionally, universities have focused their energy and resources into the educational, psychological and social needs of young adults in their late teens or early twenties, studying in undergraduate courses with the aim of attaining a qualification. In recent Australian university history, consideration has grown in relation to the needs and wants of international

and 'mature age' students. In general, senior students tend to study primarily for the intrinsic value of the knowledge, and secondly for the social dimension that accompanied involvement in education (Swindell, 1993). If Australian universities are to be a true place of learning for all, then they perhaps may at least need to consider framing their future directions in a way that considers and treats its senior students in a positive light.

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TEACHING EMOTIONAL INTELLIGENCE NONFORMALLY: AN EXPERIMENTAL STUDY IN AN IRANIAN PUBLIC BANK

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ABSTRACT

This study tends to develop EI of employees of five branches of a Public Iranian bank. In each branch the training program was held for eight 120- minute nonformal friendly sessions. Using ECI test, participants' EI was measured before and after the program. Results show that employees' EI has improved.

KEYWORDS

nonformal learning – emotional intelligence – public bank

INTRODUCTION

The great pace of change in the world has given a strategic role to the training department of organizations. Organizations are looking for effective ways to gain competitive advantages over their competitors. One of the possible ways to keep up with the changes and gain competitive advantage is having empowered and up-to-date human resource who are agile enough to acquire the needed skills and competencies; and training departments are in charge of equipping the employees with these needed skills and competencies.

Research has shown that Emotional intelligence EI "refers to the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships" (Goleman, 1998). This was publicized by Goleman in 1995 in his bestseller "Emotional Intelligence" and suggests a set of competencies which are necessary for leaders (George 2000; Kerr et al. 2006; Palmer et al. 2001; Prati et al. 2003), groups and teams (Day and Carroll 2004; Jordan et al. 2002; Kelly and Barsade 2001; Welch 2003) and individuals' success at workplace (Abraham 2004; Higgs 2004; Kunnanatt 2004; Lopes et al. 2003; Sy et al. 2006; Tischler et al. 2002). In the recent decade many organizations have held EI training sessions for their managers and employees and the quest for it is still increasing. There is some debate over the possibility of developing EI competencies and also the effective ways for its development (Steiner 1997). This study has attempted to develop EI of 68 employees of five branches of a public Iranian bank. This is a credited bank with approximately 2000 branches all over the country. Bank branch employees are among service workers who have several interactions with their customers everyday and research has shown that EI competencies are especially

necessary for service workers (Bardzil and Slaski 2003; Rozell et al. 2004; Varca 2004).

One available challenge is finding effective ways to provide training programs that fulfil their intended objectives and lead to lifelong learning. Some special teaching methods are more suitable for teaching some skills (this is a truism) and using the right method is a key factor in determining the success of teaching process. This study attempts to remove some of the existing gaps regarding the proper way for promoting EI in service providing organizations.

Formal, nonformal and informal education

The definition of non-formal education (NFE) is a debatable issue among educators. This debate has come about as a result of the relationship drawn between NFE and the formal school system. This term became popular in the mid-1960s to signal a need for creating out-of-school responses to new and differing demands for education. In some cases, however, the expressions non-formal and informal education are used interchangeably to denote any endeavour undertaken to learn and work outside a formal classroom or workplace (Bracken, 2008; Moshe Re'em, 2001).

Coombs and Ahmed (1974) define informal education "as the lifelong process by which every person acquires and accumulates knowledge, skills, attitudes, and insights from daily experiences and exposure to the environment", non-formal education "as any organized, systematic, educational activity carried on outside the framework of the formal schooling system to provide selected types of learning to particular sub-groups in the population", and formal education "as the institutionalized chronologically graded and hierarchically structured educational system, spanning lower primary school and the upper reaches of the university." (p. 8). Based on the classic definition of NFE, Mfum-Mensah (2003) referred to four specific characteristics of NFE as follows: "It consists of organized structure; it has a set target of clients; it provides specific learning; it is carried on outside the framework of the established education system, and is not

intended for learners who are officially enrolled in school” (p. 663).

UNICEF (1993) defined NFE as “an approach to education...leading to greater flexibility in the organization and management of educational programs with a decentralized structure and less authoritarian management style. It also promotes adaptation of programs to needs and circumstances of learners, a learner-centred pedagogy, creative ways of mobilizing and using educational resources, community participation in planning and management of programs, and learning content and methods related to the life and environment of learners...” (p. 1). Taylor (2006) described NFE as “more present-time focused, responsive to localized needs, learner centred, less structured, and an assumed non-hierarchical relationship between the learner and facilitator” (p.292). With a belief that NFE has a huge role to play in maximizing social capital and lifelong learning outcomes for its residents, Shrestha et al. (2008) formed collaborative partnerships with the local government and various service providers in forming and assisting a learning network. In their study they analysed the achievements, hopes, and challenges of improving NFE delivery through networking. In their study, they reported the results of an investigation into how NFE is embedded within the activities of local human-service providers and identified the potential that these activities offer for lifelong learning outcomes.

In another study conducted by Khloudneva (2002) NFE programs are used to teach peace alternatively to formal schooling. Khloudneva analysed the program of the European Peace University (EPU) founded in 1988 that seeks major educational objectives of “Promoting understanding and respect for all peoples, their cultures, values and ways of life; Raising awareness not only of the rights but also of duties and responsibilities incumbent upon individuals, social groups and nations toward each other; Training and improving individual capabilities in peace-making and conflict resolution by non-violent means” (p. 44). Khloudneva came up with the conclusion that NFE programs could significantly contribute to the promotion of a culture of peace. Furthermore, Jones (1997) conducted a research with over two hundred women in eight small island countries in the South Pacific and Caribbean participating in NFE programs aiming at women's personal and economic empowerment. The programs increased women's awareness of their situation, improved their self-confidence, provided new skills and finally promoted a desire and willingness for change among them.

The importance of training programs in organizations is growing as more change and flexibility within an organization matter. The key element in the development and administration of these programs is their contribution to an effective learning within an organization. A great number of organizations are engaged with technical and cognitive learning, as these skills are conceived to contribute significantly to their strategic success in today's competitive world characterized by globalization, rapid technological change, workplace diversity, and constant environmental turbulence. However, there is a general consensus among scholars that these training programs are not sufficient; EI related competencies should also be improved.

Numerous studies argue that personal qualities such as self-awareness, self-motivation, flexibility, and integrity, as well as interpersonal skills such as negotiation, listening, empathy, conflict management, and collaboration are critical ingredients for a high performance workplace (Kram and Cherniss, 2001, p. 254). In EI training programs, course development, trainers as well as learning environment are among the factors that need to be considered painstakingly. In course development a thorough understanding of the organizational relationships, needs, perceptions, missions and vision is of an undeniable necessity in order to develop a more meaningful and tangible course abundant with real-life organizational based stories and examples. The role the trainers and their personal characteristics are of great importance either. In Mike Bagshaw's (2000) terms, a trainer should be aware of “... any particular vulnerability in the group (such as a recent bereavement, redundancy, demotion etc.)” (p. 63). Finally, a positive, safe and encouraging learning environment, free from sense of apprehension, and full of sense of confidentiality could guarantee, to a large extent, the effectiveness of the program. If participants perceive of the learning environment as unsafe, they would lack enough motivation to proceed. In Mike Bagshaw's (2000) terms, “The trainer should not simply set exercises and stand back, but move around groups, and keep aware of any changes in the emotional atmosphere.” (p. 64) Effective trainers are those who could be able to monitor the emotional atmosphere during the training process by paying attention to their own feelings as well as those of the participants (Cherniss and Goleman, 2001, p. 223).

In this study, which is also an attempt to develop employees' emotional intelligence nonformally, and as Goleman's (2001) model consisting of four clusters has been used as the basis of the work the following hypotheses are put forward:

H1. providing nonformal EI training programs for employees will affect their EI level, H2. providing nonformal EI training programs for employees will affect their self-awareness level, H3. providing nonformal EI training programs for employees will affect their self-management level, H4. providing nonformal EI training programs for employees will affect their social awareness level, H5. providing nonformal EI training programs for employees will affect their relationship management level.

METHODOLOGY

The study underwent the following steps:

Step one: Getting to know the organization

The nature of this research required that the researchers be fully familiar with the organization as a training course was supposed to be held inside the selected branches of the bank and EI researchers believe that training programs tailored according to organizational context are more effective (Clarke 2006). It took the researchers nine months to get to know the organization and its culture and this process included the following stages:

Direct observation of employees' daily activities in some branches: For this purpose, the researchers launched two activities: opening two accounts in two branches of this bank and doing some banking activities such as paying bills in about 20 branches located in different parts of the capital city. The two branches in which the researchers had opened bank accounts were being observed once a week. The other 20 branches were observed at least once during the research period. Thus, the employees' interactions with the customers came under the observers' careful scrutiny.

Studying the bank's rules and regulations: The researchers had the permission of the bank authorities to have access to the organizational rules and devoted some time to read them and learn about the dos and don'ts of the organization.

Studying the bank's website: The researchers could have access to the bank website in the www.bankmellat.ir address and this enabled her to follow the bank's news and also other information provided on the website.

Interviewing the bank's managers: The researchers interviewed nine managers of the bank including the CEO, the training department manager and his vice president and six of the operational managers. These were semi-structured interviews in which the researchers asked the managers about the bank's training

policies, the branch employees' emotional needs and problems and also the characteristics of the training programs that had been effective in the bank.

Interviewing the bank's employees: The sample bank's main training programs are held in the form of workshops during which employees are given time to discuss the lessons and relate them to their own organization. The researchers took part in the discussions of 15 behavioral workshops held in the training department. These discussions provided some useful information regarding employees' emotional needs and also the specific emotional situations they might encounter in their daily work on which the training program should emphasize.

Interviewing the bank's customers: As it has been fully explained in another article submitted at the ninth HRD conference in France, the researchers went to 300 customers to ask them to fill out the SERVEPERF service quality questionnaire and also kept a record of their suggestions for improving the bank's service quality. This gave the researchers a realistic attitude towards the bank's performance and also the emotional needs the employees must fulfill.

Step two: Sample selection

Selecting sample branches: As this study was supposed to be done experimentally the research sample could not be a big one. The bank consisted of 2000 branches divided in to four. The researchers chose the first area as the research would take one and a half years and the researchers were living in Tehran which was a part of the first area. The first area had 10 regions and the researchers chose the 7th region as it included a variety of branches from different degrees (the bank branches have five different degrees based on their turnover, the area they were situated in and also the number of their employees). 5 branches (each belonging to one level) were chosen as the treatment group.

Step three: Assessing the primary situation (pretest)

Measuring the sample employees' EI: The treatment group consisted of five branches that had a total of 68 employees. Before starting the training program, the employees' EI was measured using a 360 degree ECI test.

Step four: Designing the EI training program

Going through the following steps an eight session training program was designed. Each session would be 2 hours and the classes were held in the branches where all the members of each branch, from the servant to the branch

manager were all participating in the class. Two sessions were to be devoted to each cluster of EI (including self awareness, self management, social awareness and relationship management) with the whole program taking eight weeks to complete.

Reviewing the EI literature review and EI training programs: As Goleman's work deals more with the organizational applications of EI, his books and articles were regarded as the main text out of which the materials of different sessions were extracted.

Considering employees' and customers' emotional needs: Using information gained from the bank's managers, employees and customers, for each of the competencies of Goleman's model of EI several related stories and examples were prepared. These stories and examples had an eye on the emotional needs and emotional problems which were observed during the period that the researchers was getting to know the organization and also the result of the researchers' discussions with the bank's employees, managers and customers.

Considering the bank's culture: During the program-designing period, some of the EI materials and applications were tailored to the bank's culture (and also Iranian culture). For example calling customers' first names is something that would be pleasing for the customers and would strengthen the relationship between the employee and the customer but this is not something common in the bank's culture and would not rhyme with the norms.

Considering the limitations: The literature shows that longer training programs would be more effective ones but the bank authorities gave us only two and a half months for the training period and we had to design the program based on the limited time we were given.

Step five: Implementing the EI training program nonformally

The implementation of the EI program took eight weeks. Each of the five working days was devoted to each of the experiment branches. The EI trainers would go through the view points of the customers of each branch before the session and prepare relevant stories and examples for the competencies supposed to be taught that session. The ambiance of the classes was nonformal; all the training they had gone under before had been through formal sessions held in the conference rooms of the bank and this made the classes much different. Holding the sessions inside their branches, setting the chairs in a U shape, the

absence of video projections, electronic whiteboards, microphones and so forth made the ambiance of the class cosy and less formal. The classes started with a provoking relevant example and then the class members would participate in the discussion and would take active part in promoting the discussion. As widely shown in the history, Iranians are interested in story telling and as the prepared examples were from their every day work contexts, they were so interesting for them. The trainers would use stories to teach the acceptable behavior indirectly and the friendly environment would inspire them to come to the conclusions the trainers expected. Even the employees who didn't seem to like taking part in the classes turned into active participants after the second or the third session as they started to like the different climate of the class and also would realize that the classes meant to provide them with competencies which were helpful in both their work and family life. At the end of the classes a present was prepared for each of the employees and both the trainers and the trainees had a nice memory of the time they had spent together.

Step six: Assessing the program (posttest)

Measuring the sample employees' EI again: After the end of the eighth session, the ECI test was given to the trained employees.

DATA ANALYSIS

The total number of trained employees was 68 but only the data of 52 of them (44 males and 8 females) were used in analysis as the rest couldn't take part in both pretest and posttest sessions. For each employee two EI records were gained; one from the EI questionnaire filled out by herself and one from the questionnaires filled out by her colleagues. In order to summarize the employees EI results, the mean of the self and the other ratings were used in analysis.

Analyzing the first hypothesis: Descriptive statistics show that total EI of employees holds a mean of 3.332 before the training program and after the training program it has turned into 3.934 which show an increase in employees' EI level. In order to analyze the EI pretest and posttest results, the Pearson test was used and the results show that with 99% level of certainty and correlation of 0.453 there is a meaningful relationship between the EI pretest and post test results where the changes in EI level could be attributed to the EI training program. A paired sample t test was also done to see if the mean difference between the EI pretest and post-test results is meaningful or not. The results of the paired sample t test shows that with 99% level confidence and significance level of 0.00, the difference between EI pretest and posttest means

are meaningful and the EI program has changed employees EI level.

Analyzing the second hypothesis: Descriptive analysis shows that the self-awareness mean before the program was 3.8522 changing to 3.9768 after holding the EI training program. Applying the paired sample t test for the self-awareness cluster shows that with a significance level of 0.002 and 99% level of confidence there is a meaningful difference between self awareness means before and after the training program indicating that the employee's self-awareness level has meaningfully increased due to the held training program.

Analyzing the third hypothesis: The second cluster of EI is self-management; according to descriptive analysis it held a mean of 3.7646 before holding the training program and a mean of 3.8486 after it. This indicates an increase in the level of this cluster but in order to see if this difference is meaningful or not, a paired sample t test was applied; the results of the test shows that with a significance level of 0.016 and 99% level of confidence, there is a meaningful increase in employees' self-management level.

Analyzing the fourth hypothesis: Social awareness, the third cluster of EI had a mean of 3.9484 in the EI pretest and after holding the EI program it has gained a mean level of 4.0531 also indicating an increase. A paired sample t test was applied to see if the difference between the social awareness pretest and post test mean was meaningful or not. Results of the test show that with a confidence level of 99% and significance level of 0.004 there is a meaningful increase in the employees' social awareness level after holding the training program.

Analyzing the fifth hypothesis: The fourth cluster of EI is relationship management. Based on descriptive analysis in the EI pretest this cluster's mean was 3.5785 changing to 3.7692 after holding the EI training program for the branches. The results of the paired sample t test conducted for this cluster indicates that with a significance level of 0.00 and confidence level of 99%, there is a meaningful increase in the relationship management level. Green house test was used to see if there is a meaningful difference between males and females as far as EI clusters and the significance level of 0.794 shows that the test is not meaningful and there is no difference between males and females as far as EI clusters' development. In other words, gender has not affected EI clusters development level.

DISCUSSION AND CONCLUSION

EI competencies are important for today's employees and studies have shown its special position in service providing companies. These competencies, once learned, could help individuals improve the quality of their work life and personal life. Literature shows that there are still some discussions between EI theorists and researchers regarding suitable and practical ways for EI development. This experimental study used nonformal education techniques to develop the EI of employees' of five branches of a public bank and the results are promising. Data analysis shows that the eight-week EI training program has been a successful one and the branch members have shown increases in their EI levels. The researchers believe that one of the main reasons for the program's success was the uniqueness of its design process and also the quality of delivering materials in the sessions. The researchers' familiarity with the managers, employees and customers view points, needs, expectations and problems gave them a clear idea of the requirements of the program and also the suitable way for conducting it. The nonformal environment of the classes, preparing relevant examples and stories from their daily life experiences and giving them a chance to share their ideas made the program interesting for them. In both EI pretest and post test sessions the highest mean has been for the social awareness cluster which might be due to the great number of daily interactions the bank employees' have. The most increase has been for relationship management cluster, which means that the program has had the most effect on developing this set of competencies. The employees' gender has had no effect in the results indicating that in this study, there is no meaningful difference between males and females with regard to EI development. Beside the data gained statistically, employees themselves told the trainers that their families and coworkers had noticed some changes in their behavior and it shows the effectiveness of the learning process. It could be concluded that nonformal training is a suitable method for developing EI. Future research could repeat the same method in other organizations and also other cultures and give the method more credibility.

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LIFELONG LEARNING JOURNEYS ON THE MOVE: REFLECTING ON SUCCESSES AND FRAMING FUTURES FOR AUSTRALIAN SHOW PEOPLE

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ABSTRACT

This paper reflects on the successes and contributes to framing the futures of and for Australian show people as lifelong learners, drawing on qualitative interview data and analysis of their periodical *The Outdoor Showman*. Their lifelong learning journeys on the move are innovative and empowering, yet also vulnerable to capture.

KEYWORDS

Australia – Queensland School for Travelling Show Children – *The Outdoor Showman* – show people – Traveller education

INTRODUCTION

The travelling agricultural show has been a rich part of Australia's cultural history for decades, playing a significant role in national development. The show has traditionally been part of local community life within regional and rural Australia (Danaher, 1997), providing a showcase for those areas' industry as well as a site for recreation and social interaction, in addition to facilitating a link between the city and the bush (Danaher, Danaher & Moriarty, 2003). In this sense, the travelling show people are a rich part of the Australian national narrative.

At the same time, there has been a concern that the show people are placed outside this national narrative in relation to educational provision. That is, lacking ongoing exposure to schooling that settled communities have enjoyed, the show people have been configured as being educationally at risk (Danaher, Danaher & Moriarty, 2007), unable to develop the academic skills that would enable them to participate effectively in the knowledge economy as it has developed in the 20th and 21st centuries. This concern provided the impetus for the development of the Queensland School for Travelling Show Children in 2000, a joint federal and state government initiative that produced a set of mobile classrooms that accompany the show on its circuits through rural, regional and metropolitan Australia (Danaher, Moriarty & Danaher, 2006).

The overall purpose of this paper is to adopt a long-term perspective to reflect on the successes and to contribute to framing the futures of and for Australian show people as lifelong learners (understood as encompassing both formal and informal approaches to learning and teaching).

On the one hand, semi-structured interviews with show people in selected years from 1992 to 2003, augmented by show community members' articles in their periodical *The Outdoor Showman*, confirm the genuine successes in formal educational provision, culminating in the show school's establishment, as well as in informal learning passed from one generation to the next. On the other hand, the show people's educational futures are by no means guaranteed, subject as they are to broader sociocultural and economic pressures. Thus the Australian show people's lifelong learning journeys on the move are innovative and empowering, yet also vulnerable to capture.

The paper is located in a broader field of literature about the formal and informal education of mobile communities. While that literature ranges from Australian seasonal workers (Henderson, 2005) to English fairground people and Gypsy Travellers (Kiddle, 1999) to Irish Travellers (Kenny, 1997) to African and Asian nomadic pastoralists (Dyer, 2006), these varied accounts have in common a dual focus on the richness of the children's and their families' opportunities for informal learning on their respective itineraries and on the difficulties of conventional educational systems in catering to their specialised circumstances and needs.

The project's research design was qualitative, interpretivist, phenomenological and poststructuralist (Somekh & Lewin, 2005). That is, the research was directed at understanding the lifeworlds and worldviews of the show people and those who help to bring them formal education by analysing their spoken and written words and by giving priority to the phenomenon of mobility while emphasising the politicised character of the contexts in which that mobility is enacted. The data corpus to date was divided into two phases: annual visits to the showgrounds from 1992 to 1995 inclusive, supplemented by an interview with a home tutor in 1996; and an intensive visit to the Queensland School for

Travelling Show Children in 2003, when four researchers conducted 14 interviews with 20 show children, six parents and nine educational officials. In both phases, questions derived from a pre-designed interview schedule but were merely stimuli for what were often long and widely ranging discussions, eliciting the participants' perspectives on formal and informal education. Data analysis was ongoing and iterative and framed by the identification of categories and themes in the interview transcripts.

The paper is divided into four sections:

- A discussion of the Australian show people's past, present and possible future formal and informal learning experiences and opportunities;
- A conclusion that links those experiences and opportunities with the reflected successes and the framed futures of the Australian show people's lifelong learning journeys on the move.

Australian show people's past lifelong learning journeys

In providing a linear periodisation in this account of the Australian show people's lifelong learning journeys, it is important to acknowledge the risk of presentism (Kuklick, 1999), whereby the attitudes and values of contemporary society are assigned anachronistically to members of previous generations. It is necessary also to avoid the potential for progressivism (Foucault, 1991) attendant on assuming sequential improvement in the rights of particular groups within communities. In particular, as will become clear, there is certainly no automatic or guaranteed progression in their educational access and equity; on the contrary, every gain has been hard fought and must be zealously guarded against (re)capture by forces of marginalisation (see also Danaher, 1998a, 1998b, 2001).

That caveat notwithstanding, Australian show people's past lifelong learning journeys were centred on their distinctive cultural history. Although Australia's first agricultural society was the Van Diemen's Land Agricultural Society, formed in Hobart in 1821 (Mant, 1972, p. 17), it was not until the 1870s that agricultural shows in regional and rural towns began in the eastern colonies (Broome with Jackomos, 1998, pp. 20-21). Show people exhibit great pride in this long historical association between sideshow alley and Australia's development as a nation in both its urban and its rural manifestations. That association is inextricably linked with show people's perceptions of their community's capacity for informal learning, encapsulated in

Bob Morgan's (1995) summation of the principal threads running through his interviews with seven well-known members of that community:

...their great capacity for hard work, their grim determination to succeed under very harsh conditions, their morality and integrity in dealing with those who worked with them, and despite fierce competition, their compassion towards those going through hard times who needed a hand up.
(p. xvii)

While clearly this is a celebratory discourse that downplays the conflict and negativity evident in any community, it is remarkably similar to national narratives about (white) (male) Australians (see for example Turner, 1993). In both cases, the informal dimension of lifelong learning is framed in terms of demonstrating individual initiative and resilience, innovating by making do with what is available, ignoring or overturning rules that are seen as restrictive of opportunity and exhibiting a healthy scepticism towards authority.

It was those same characteristics, reductionist and mythical as any such list of qualities must be, that show people mobilised when describing the formal lifelong learning opportunities previously available to them and their actions directed at improving those opportunities. Certainly the show people's mobility had led to a more limited range of formal educational options than those available to settled residents:

- sending their children to local schools along the show circuits
- sending their children to boarding schools
- not sending their children to local or boarding schools but instead teaching them correspondence lessons on the show circuits
- coming off the show circuits and finding alternative employment for the duration of their children's education so that the children could attend local schools
- remaining on the show circuits and sending their children to live with relatives and attend local schools
- not sending their children to school at all. (Danaher, 2001, p. 255)

These options were considerably broadened in 1989, when the show people gained access to a specialised program within the Brisbane School of Distance Education (Danaher, 1998a, 2001). While this program had several benefits for the show community, parents lobbied successfully for the establishment of the Queensland School for Travelling Show Children, which began

operations in 2000 (Danaher, Moriarty & Danaher, 2006).

Semi-structured interviews with show people, continuing from 1992 to 2003, attest to the perceived success of the expansion of formal educational opportunities available to them. For example, one parent stated in 1992 that before the creation of the Brisbane School of Distance Education program:

...the choices that were available to the parents were basically zilch....[The children] just went from school to school and there was no continuity or gauge on what the kids were doing, so they got to a certain age and lost interest very quickly. (as cited in Danaher, 2001, p. 257)

Another parent interviewed in the same year lamented the difficulties of teaching show children correspondence lessons while travelling along the show circuits:

I don't know how the parents managed with the correspondence. I couldn't have done it. I think you've got to have a lot of patience to do correspondence with your own kids. I mean, to be a mother and a teacher, and the kids just saying, "Well, I'm not doing it". If you're a teacher, you can say, "Yes, you are", but if you're the mother you just don't seem to be able to do anything about it. I've seen plenty of people nearly fall apart trying to do correspondence. It must be really hard. (as cited in Danaher, 2001, pp. 265-266)

These feelings that previously available opportunities facilitated informal lifelong learning but hampered lifelong learning journeys on the move for the show people were articulated also in their trade periodical *The Outdoor Showman*. This is a quarterly magazine published by the Victorian Showmen's Guild, and it contains articles of interest to show people in Australia and New Zealand, such as reports about major shows, discussions of legislation relevant to equipment registration and advertisements for rides such as ferris wheels and joints such as laughing clowns (Danaher, 2001, p. 19). It also publishes letters and reminiscences by show people about the community's cultural history. One example, entitled "Behind the Loudspeakers, Toffee Apples and Fairy Floss" (Osborne, 1997), conveyed simultaneously non-show children's perceived fascination with the show and their hostility towards show children:

The thoughts of a young boy that take me back to when as a Showie kid going to school, inundated with questions about the show. What's the best ride? The fastest one? Will it make me sick? What's your dad

got at the show? The questions that went on. I felt important, commanding this unbelievable respect from kids that normally wouldn't give me the time of day. (p. 21, as cited in Danaher, 2001, p. 20)

The following reminiscence from *The Outdoor Showman* (Taylor, 1998) evocatively summed up this dual theme of limited formal educational opportunities and heightened informal learning constituting the show people's past lifelong learning journeys on the move: "Mickey Taylor...had a great learning ability for someone who never attended school[:]; he learnt to read[:]; he always said if you can read you can teach yourself anything" (p. 43).

Australian show people's present lifelong learning journeys

As indicated in the introduction, a significant element in the lifelong learning journey of the present generation of Australian show people has been the establishment of the Queensland School for Travelling Show Children in 2000. At this stage the school caters for students from kindergarten to Year 7 and features two teachers in each of two mobile classrooms teaching multi-aged level classes (Saleh, 2003, p. 23). The school can be understood as an attempt to normalise the schooling experience of the Traveller children. Rather than being located on the showgrounds, the school is placed within the grounds of a local primary school for the duration of the show's stay in that community. For example, when the show comes to Rockhampton each June, the school is located at the Crescent Lagoon Primary School. This arrangement means that the show children need to arrange to travel from their caravans on the showgrounds to the school each day. In addition, the school has a dedicated uniform and school song; these are important factors in establishing the school's distinctive identity, on the one hand, while locating it within the geographical boundaries of mainstream schooling, on the other.

As the school is limited to kindergarten and primary schooling years, it does mean that options for secondary education among the show children are still somewhat limited. Many children go to boarding school, while correspondence and home schooling with a dedicated tutor are options for others. And there is still a generation of adult show people who have had limited formal educational provision. One possible innovation being considered here is to use the Queensland School for Travelling Show Children to provide night classes in literacy to show people (Fullerton, 2003), thus equipping them with reading and writing skills to

provide a basis for further learning, as suggested by Mickey Taylor's experiences as cited above.

One way in which the show school is seeking to challenge the negative images still associated with show people is through generating media interest (see for example Saleh, 2003, p. 23). The advanced technology of the classrooms, with television monitors and satellite dishes to access the Internet, along with the story of the parents' active lobbying in order to secure this joint state and federal government initiative, presents the show community as being cohesive, proactive, technologically and politically savvy and concerned for their children's future. This set of characteristics has been central to the way in which the show community has deployed the resources at their and others' disposal to secure ongoing support for their educational endeavours.

Similarly, the principal of the show school and her colleagues have been acutely aware of the difficulties that families in this transition phase have faced and have been sensitive to their uncertainties and needs. They have also been aware that inducting families into a more formal school community, if approached sensitively, can provide opportunities for other family members to learn and to impact on their lifelong learning trajectories.

Australian show people's possible future lifelong learning journeys

The lifelong learning futures for Australian show people are likely to be characterised by the same tensions and opportunities that have framed their past and present educational experiences. The show competes with a variety of other diversions such as electronic media, travel opportunities and home entertainment to attract customers. It is clear that, to be competitive in an environment in which diverse cultural and entertainment provision seems bound to increase exponentially, show people will need to remain innovative in providing rides and distinctive experiences attractive to the general public, while continuing to draw on the rich heritage and traditions of the show circuit.

It is evident that a mix of informal and formal lifelong learning experiences will be needed to sustain the show culture and business (as is already apparent from the school's effectiveness in mobilising multiliteracies that integrate the children's formal and informal knowledge; see Fullerton, Danaher, Moriarty & Danaher, 2004). With regard to formal provision, it is likely that show people will need tertiary as well as school qualifications in order to engage with the

complexities of operating a sustainable business in the future environment. The massification of higher education places pressures on those communities who traditionally have not had access to this experience. Innovations in distance education through information and communication technologies are likely to be significant in enabling a mobile community such as the show people to access tertiary education. It can be envisaged that increasing formal qualifications in areas as diverse as marketing, public relations, accounting, multimedia and engineering will assist in sustaining the families of the show communities as viable business operations with innovative products. It is likely that the travelling show school will continue to play an important role in launching these formal lifelong learning pathways.

From the perspective of informal lifelong learning futures, it seems evident that the show people's experiences will be shaped by the largely regional and rural communities with which they interact. While the show has played a historically important role in bringing the 'bush' to the city in events like the Royal Easter Show in Sydney and the Brisbane exhibition (or Ekka), its lifeblood seems likely to remain located within the regional and rural locations through which it travels for much of the year. These communities face challenging futures in relation to economic viability and social wellbeing. Uncertainties in commodity prices, drought and the impact of climate change are likely to challenge the futures of many rural communities. At the same time, seachange and tree change movements are altering the makeup of certain regional locations. One possible future for these communities sees them growing in size and economic and social significance as they innovate in farming practice, ecological management and cultural infrastructure to confront the environmental and other challenges of the 21st century. The show would then play an important part in supporting and exhibiting these innovations, demonstrating the adaptability and resilience of the deep, lifelong learning of these communities. A less positive vision of the future sees these communities withering away owing to lack of infrastructure and the effects of climate change and economic forces. Such a future would have severe consequences for the travelling show circuits.

From this perspective, questions about the future are much broader than just questions around schooling and education. There are bigger questions looming around the future of agricultural shows that are now magnified by a future situation in which more formally educated

generations of show people will have open to them opportunities for higher education and employment outside the show circuits. Those who appreciate the magnitude of the impact of agricultural shows on the lives of generations of people, particularly in regional and rural settings, and on the way that Australia is perceived more broadly, will wonder whether improvements in educational and career opportunities of upcoming generations of show people will alter forever the wider landscape of Australia and the distinctive characteristics by which Australians perceive themselves and are perceived by others.

CONCLUSION: IMPLICATIONS FOR LIFELONG LEARNING JOURNEYS ON THE MOVE

I think anything that allows us to demonstrate and to quantify, in both the quantitative and the qualifiable sense, that this...has value and this adds value, and it should be identified and treasured and promoted. Because, at the moment, a lot of the stuff that we're doing runs off the heart factor; it's a cardiac assessment rather than being a cerebral assessment. I think this is the nature of community and the nature of the body politic these days...that's all very interesting.

These words by an educational official in 2003 talking about the Queensland School for Travelling Show Children encapsulate the past, present and future dimension of the Australian show people's lifelong learning journeys on the move. They evoke the struggle, animated by commitment and determination, to disrupt decades of educational marginalisation and neglect; they focus on the school as a current artefact of that struggle and the aspiration for alternative and more empowering educational provision; and they suggest possible future iterations of the school as a model for such provision.

At the same time, these words highlight how the successes being reflected on and the futures being framed in this paper are tentative and vulnerable, and how they are liable to capture by competing forces of broader sociocultural and economic pressures that dispute the claims to a distinctive cultural heritage and educational circumstances by communities such as the show people. This in turn emphasises how lifelong learning policy and practice are situated in, and hence potentially compromised by and complicit with, wider political factors and forces that are frequently homogenising and controlling rather than working to value diversity and heterogeneity.

Or as one of the parents, also in 2003, reflected on the successes and framed the futures of the show people's lifelong learning journeys on the move:

I think the school's come a long way, and it takes time. Like any school when they first bring in their first years of little kids, it takes time to actually adjust and get used to the routine. I think we've all got used it now and the way the system's going, and it's going along really well.

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LIFELONG LEARNING, WORK, RETIREMENT AND INALIENABLE INTERCONNECTIVITY: REFLECTING ON PERSONAL SUCCESSES AND FRAMING COLLECTIVE FUTURES

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ABSTRACT

This paper explores the connection between lifelong learning and work by analysing the authors' respective experiences of formal and informal work and retirement. Inalienable interconnectivity is a fruitful way of understanding lifelong learning, work and retirement that simultaneously reflects on personal successes and frames and builds on collective futures.

KEYWORDS

academic work – alienation – collectivity –
retirement – work

INTRODUCTION

Attaining a productive and sustainable work–life balance remains one of the central challenges of contemporary late capitalist economies. Despite evidence of intergenerational unemployment (Corak, Gustafsson & Österberg, 2000; Kelly & Lewis, 2002) on the one hand and the development of portfolio careers (Fenwick, 2003; Gold & Fraser, 2002; Platman, 2004) on the other, formal, full-time work remains a powerful force in defining individual identity and communal acceptability.

This situation generates a challenge for concepts of and policies for lifelong learning. In particular, what are the relationship and the dividing line between lifelong and lifewide learning; what is the association between lifelong learning and various enactments of work (full-time, part-time and casual; formal, non-formal and informal); and can lifelong learning be resuscitated from the excessively economic focus of its claimed contribution to enhancing work-based productivity? In short, what space is there for lifelong learning before, alongside and after formal, full-time work (see also Billett, 2001; Engeström, 2004)?

This paper explores this complex and potentially contradictory connection between lifelong learning and work by analysing the authors' separate and shared experiences of formal and informal work and retirement. One author has combined the responsibilities of raising a family with various combinations of full- and part-time work and is now a full-time retiree, yet is working productively in several respects, ranging from volunteer service for local groups to co-authoring a research book (Danaher, Coombes & Kiddle, 2007). Another author has moved from casual to permanent full-time to permanent half-

time work as an academic, the most recent phase of his working life coinciding with a renewed interest in creative writing and travel. The other author is finding increased difficulty in achieving a work–life balance, and is seeking ways through lifelong learning to redress the balance.

The analysis is informed by the concept of inalienable interconnectivity (Danaher, 2006), whereby resistance of alienation of education can be pursued by self-emergent groups. The authors argue that inalienable interconnectivity is a fruitful way of understanding lifelong learning, work and retirement that simultaneously reflects on personal successes and frames and builds on collective futures.

The paper's research design was framed by the principles of autoethnography, entailing a focus on the "researcher as subject" (Ellis & Bochner, 2000, n.p.; see also Holt, 2003). This method requires a politicised interrogation of the interplay between the private and the public and between the personal and the communal dimensions of social life. The underlying research question was "How do the author–researchers understand their formal, non-formal and informal lifelong learning experiences in relation to inalienable interconnectivity?"

The paper is divided into five sections:

- A conceptual framework focused on inalienable interconnectivity;
- Each author's respective experiences of the complex intersection among lifelong learning, work and retirement;
- A conclusion that links that framework and those experiences with implications for framing personal successes and collective futures in lifelong learning.

CONCEPTUAL FRAMEWORK

The concept of inalienable interconnectivity (Danaher, 2006) was articulated as a counternarrative to the dominant discourses of the commoditisation of knowledge and the

alienation of education to market forces, largely on the basis that they serve to disconnect learners from their learning environments. On that basis, "...a market-driven global educational agenda provides a model of interconnectivity that is limited and that diminishes the possibilities of lifelong learning" (p. 56). A very different approach is centred on:

...a conception of lifelong learning as an inalienable value, part of the education of every citizen, and which is based on the principle of interconnectivity. This model would promote the interconnectedness between the local and the global, the physical and the spiritual, the learner and the learning experience. It would provide pathways, create partnerships, and fashion pedagogies that are aimed at addressing this paradox: how to ensure the inalienable value of education in an interconnected world. (p. 56)

This resistant model of lifelong learning draws on a number of intellectual forces (such as complexity and chaos theory) and has several manifestations, including, "...in the Australian context, ...the down-shifting, sea-changing, and tree-changing movements, in which people opt to give up high pressure jobs or reduce their working hours and relocate from cities to rural areas" (Danaher, 2006, p. 58). Self-emergent groups are posited as one among several possible ways forward, such groups ranging from reading groups and book clubs to more diffuse collections of diverse individuals, all "...motivated by the principles of open and respectful dialogue with a view to exploring how ideas and concepts might be applied and resonate across different contexts" (p. 59). Seen from this perspective, "Inalienable interconnectivity aims to establish pedagogical pathways and partnerships between lifelong learners in a range of different areas, based upon their shared commitment to resisting the claims of the market and reclaiming education as something valuable in itself" (p. 60).

While it is important to acknowledge that inalienable values have a mythic dimension and are as subject as any other values to the play of competing interests of different groups (Danaher, 2006, pp. 56-57), we deploy the notion of inalienable interconnectivity in this paper as a conceptual lens for interrogating our respective lived experiences of life, learning, work and retirement. We have selected this lens for three reasons:

- Inalienable interconnectivity engages with the key players (including forms of capital, knowledge construction, globalisation and technologies) that

influence lifelong learning, work and retirement in the contemporary world.

- Inalienable interconnectivity helps to articulate a clear alternative to the dominant discourses associated with late capitalism, marketisation and alienation.
- Inalienable interconnectivity says something new and different about lifelong learning and about framing futures for lifelong learning that are simultaneously personal and collective.

Work-life balance in retirement

The transition from a satisfying career to full-time retirement can be an alienating experience. As we have mentioned, individual identity and communal acceptability are defined by certain aspects of our life-worlds, including friends and family, community activities and career. In my own case, after more than 30 years in full-time and part-time employment, I was well aware of the necessity for careful preparation for this new stage in my life, and I learned to regard it as a beginning rather than an ending.

Lifelong learning, naturally, maintains strong connections with work. We learn to prepare ourselves for a trade, job or career, and we continue to learn as an important part of our professional development. We tend to define work as paid employment, but how does the retiree fit into this concept? It is important to bear in mind that retirement too can be regarded as a career, even though an unpaid one. While the absence of salary can be problematic, freedom from the economic imperative can also be liberating. Many people in their sixties and seventies are still relatively active, both physically and mentally. When this is the case, and following the argument that learning continues to be important throughout life, the retiree can choose from a range of learning options, defined mainly by personal interest. Thus retirement becomes a time of opportunity rather than a process of getting through each day in a purposeless and unsatisfying way.

It has been noted (Danaher, 2006) that a danger inherent in the trend towards commoditising knowledge is that learning can be regarded as an exchange value rather than a core value. There is no danger of this for the retiree. Learning becomes truly self-directed, and there are many options available. For example, in my own case, I have chosen to pursue two of my favourite activities, reading and writing. I have joined a book club where the selected books usually provoke lively discussion and sometimes dissent whereby we all continue to learn. I also attend University of the Third Age writing workshops

where I am learning the techniques of creative and memoir writing, so different from academic assignments and articles, but requiring a similar degree of rigour and discipline. I also devote some of my time to volunteer activities, an excellent method of familiarising myself with the new community where I am now living.

In retirement, it is important to maintain some sort of structure, though this tends to be less rigid than that of our working life. Inalienable interconnectivity for the retiree combines learning for its own sake with self-emergent groups. The choice to involve oneself with any form of structured learning activities, formal or informal, inevitably results in interaction with other people and new associations are formed. Lifelong learning for the retiree does not, perhaps, contribute directly to work-based productivity. Nonetheless, in the later years of life, we can still lead fulfilling lives, and our productivity and usefulness become community-based as we continue to learn and pass on our renewed wisdom.

Creating spaces: Work–life balance in semi-retirement

In this section of the paper, my focus explores the experience of moving to part-time work, and conveys a similar love of reading and writing as that evinced by the author of the previous section. This change occurred in the middle of 2007, and emerged in relation to a consideration of financial implications and a desire for the further lifestyle opportunities that such an adjustment would afford. Perhaps the adage that encapsulates the impulse for this change was that it is unlikely that anybody would reflect on her or his life and genuinely wished that she or he had spent more time in the office.

A significant element relating to the inalienable interconnectivity of this change is the concept of economies of pleasure (Schirato & Yell, 2000, p. 189), referring to the relationship between the time and energy that consumers spend in reading texts against the pleasure that they gain from this. That is, reading a great work of literature involves investing much more time and, arguably, concentrated attention than does watching a film version of the book. As our time and labour have been alienated to market forces and workplaces, less is available for the more leisurely paced, deep absorption of reading. One manifestation of this displacement is the curiosity noted by Rosemary Neill (2008), among others: a considerable number of students enrolled in creative writing programs have relatively little experience of reading literature. It seems that their cultural tastes and sensibilities have

emerged within an economy of pleasure generated by the forces of speed and instant gratification.

Semi-retirement and partial removal from this alienated world of speed and work offer opportunities for interconnecting with the economies of pleasure of literature and thereby developing different perspectives on life. As such, the concept of economies of pleasure might be extended to ecologies of pleasure. While the institutional ecologies of work offer certain pleasures in relation to interaction with colleagues, achievement of outcomes and possibility of promotion, retirement into the other ecologies of imaginative textual engagements, local communities and natural ecosystems offers another array of pleasures and conditions of possibility. Within such a space of removal, the sustaining values of self-emergent groups such as book clubs and creative writing retreats (to locations such as the rainforest and islands near my local community) constitute a significant part of the ecology of pleasure. Indeed, in my own absorption within creative reading and writing, I have found that the characters and experiences encountered through this investment constitute, *albeit* literarily rather than literally, self-emergent groups in themselves, in the way in which they evolve within my imagination and form connections with other parts of life. As a writer who prefers to eschew careful and detailed planning in favour of composing scenes and vignettes which gradually converge to form patterns of connection and narrative coherence, I find that the relationship between self-emergence and inalienable interconnectivity is one that significantly informs my creative practice.

Thus, in my experience, the move to part-time work and semi-retirement has enhanced my sense of the possibilities of inalienable interconnectivity and self-emergent groups, both literal and literary, in contributing to lifelong learning futures.

Work–life balance: what's that when it's at home?

As the third author of this paper, my experiences are centred on lifelong learning and full-time paid work, with retirement something to aspire to and long for in the medium future. Work for me is centred on being an academic, clustered around teaching online postgraduate courses, supervising doctoral candidates, discharging administrative and service responsibilities, and conducting and publishing research. I confess to an enduring ambivalence about my work. On the one hand, I am immensely privileged to be an academic and to be paid to read and write

academic texts and to think and talk about intellectual concepts and research methods. On the other hand, I am increasingly concerned about the individual and group sustainability of a work environment characterised by intensification, managerialism and hierarchisation (Danaher, Alcock, Danaher & Harreveld, 2004; Danaher, Danaher & Danaher, 2006).

Given that environment, it is hardly surprising that the notion of a work–life balance is something of a chimera. As I have done for most of my life, and in common with many of my colleagues, I routinely work seven days a week. Mostly I enjoy doing so, finding that absorption in academic pursuits generates the feelings of energised focus, involvement and fulfilment associated with the concept of flow (Csikszentmihalyi, 1998, 2003). Yet I recognise the downsides of that absorption, including physical inactivity, awkwardness in social situations and guilt when I engage in leisure activities such as reading and viewing detective fiction.

Inalienable interconnectivity gives a mixed report card in relation to my experiences outlined here. At one level, there is certainly evidence of enjoying and promoting education in its widest sense and for its own sake. At another level, and from an outsider's perspective, the span of interests might be seen as narrow and the impact as limited and localised.

Two examples of the self-emergent groups identified above as helping to promote the alternative understandings of inalienable interconnectivity must suffice. The first is a diverse and lively group of colleagues in Australia, Canada, England, Ireland, Italy, the Netherlands, Nigeria, Scotland and Venezuela, clustered around shared interests in the education of Traveller and nomadic communities and encompassing a range of conceptual and methodological approaches to practising and researching education. The second is a group of postgraduate students and early career researchers whom I find the greatest source of sustenance and support at my current institution (Danaher, under review).

In this section of the paper I have engaged with selected aspects of lifelong (and less so of lifewide) learning; I have affirmed work's central role in defining (but hopefully not limiting) my identity; and I have referred in passing to retirement (without having a clear idea of what it might mean for that identity). In doing so I have reflected on some of my personal successes (and

failures) and I have subscribed to a framing of collective futures in which individual and communal achievement can be conjoined. This is my understanding – inevitably partial, restrictive and restricting – of what inalienable interconnectivity currently is and might become.

CONCLUSION: IMPLICATIONS FOR FRAMING PERSONAL SUCCESSES AND COLLECTIVE FUTURES IN LIFELONG LEARNING

This paper has explored three among several possible iterations of the complex relationship among lifelong learning, work and retirement. The conceptual lens deployed to frame that exploration was inalienable interconnectivity (Danaher, 2006), whose key features include a commitment to lifelong learning as an inalienable value and an openness to self-emergent groups as a means of enacting that value. In each manifestation of the continuum from full-time work to full-time retirement, that lens was used fruitfully to elicit the respective author's reflections on personal successes (and inevitably failures) and to suggest some possibilities for sustainable and sustaining futures in lifelong learning.

The character of that continuum constitutes the first implication of the preceding discussion for framing personal successes and collective futures in lifelong learning. If we consider what shifts from one edge of the continuum to the other, we might speculate that moving from full-time work to full-time retirement parallels a change from full-time alienation to full-time learning and/or interconnectivity. Yet not necessarily so: full-time, paid work is not always or inevitably alienating and full-time retirement can be associated with ill-health and other impediments to learning and interconnectivity. From a different perspective, what is constant at all points along the continuum is the sustaining power and the contagious enthusiasm of and for lifelong learning and self-emergent groups – groups that we can choose to join and to leave at will and all of whose members benefit in significant ways from such membership.

The second implication is that our vision of successes and futures in lifelong learning is simultaneously and indivisibly individual and collective. The shared and separate lifelong learning journeys elaborated in this paper derive from and depend on individual activity and agency – on each person's commitment to continuing to interact and learn and each person's resilience in the face of inevitable obstacles and diversions. At the same time, that

individual activity and agency are strengthened and nourished by the active interest of significant others: family members, work colleagues, friends and community members. The self-emergent groups that are constituted by those significant others are composed of both kindred spirits and others who have different world-views but from whom we can learn and to whom we can return the favour.

The third implication is the potentially resistant quality of lifelong learning and self-emergent groups alike. A key element of inalienable interconnectivity is that it runs counter to contemporary dominant discourses about the commoditisation of knowledge and the prevalence of economically centred assumptions about educational provision. As such, inalienable interconnectivity seeks to resuscitate discussions and experiences of lifelong learning that privilege micromanagement and productivity in favour of a more broadly based, diverse and encompassing approach to our engagements with our communities and our world. From this perspective, lifelong learning futures that highlight the emotional dimension of learning and living and that create spaces for fun, frivolity and sheer *joie de vivre* are well worth exploring – seriously.

The preceding discussion suggests that inalienable interconnectivity has yielded fruitful reflections on the three lifelong learning journeys elaborated here as well as broader possible implications for understanding the multiple intersections among lifelong learning, work and retirement. Those reflections and implications form one among many possible navigational devices for reflecting on personal successes and framing collective futures at different points along the work–retirement continuum that hopefully maximises fulfilment and meaning while minimising alienation.

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LOOK WHAT THE TIDE BROUGHT IN: THE TENSIONS AND OPPORTUNITIES WITHIN SEACHANGE LEARNING COMMUNITIES

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ABSTRACT

This paper considers the role of learning communities in promoting lifelong learning futures in 'seachange' locations, where the movement of people into regional coastal towns has created both tensions and opportunities. I focus on the seachange experience of the Capricorn Coast, exploring how learning communities might respond to climate change.

KEYWORDS

Seachange, Learning Communities, Sustainable Lifelong Learning Futures

INTRODUCTION

The sea change movement refers to an increasing demographic shift of people to reside in coastal communities. The term originated from Shakespeare's play *The Tempest* some 400 years ago (Phrase finder, n.d.) and, within the Australian cultural context, gained wider currency through a popular Australian Broadcasting Corporation television series of the 1990s. The Capricorn Coast area, which hosts the Lifelong Learning conference, has been identified as one such 'seachange community' (Australian Bureau of Statistics (ABS), 2004). While such communities tend to be characterised by growth and innovation, the influx of new residents, ideas, lifestyle values and technologies, besides imposing pressures on existing social services, infrastructure and the environment, can cause certain tensions. This paper draws on principles associated with learning communities and inalienable interconnectivity, and focuses on possible partnerships and projects generated in response to the challenge of climate change, to suggest ways in which the seachange movement might contribute to sustaining and innovative lifelong learning futures within these locations.

The paper proceeds through the following stages:

- A consideration of the local context of the Capricorn Coast as a seachange community;
- An analysis of relevant principles of learning communities;
- A discussion of how these principles might be applied to the seachange learning community of the Capricorn Coast to address the challenge of climate change.

Local Context

The Capricorn Coast in Central Queensland, Australia, which takes its name from its location on the Tropic Of Capricorn, consists of a number

of small and medium sized communities set on Keppel Bay, settled by Europeans from the 1860s. Over the last 50 years, the former Livingstone Shire which covers the Capricorn Coast and rural environs grew in population from around 7,000 to 30,000 people (Wannop & Danaher, 2007, p. 127). Concomitant with this growth has been a shift in focus from primary industries such as grazing, pineapples and fishing to services such as education, tourism, financial planning and property development. Improved transport technologies have enabled many coast residents to work and study in the hub city of Rockhampton, some 40 kilometres to the west, and to access higher education through Central Queensland University. The Capricorn Coast now actively promotes itself as a seachange community offering attractive lifestyle opportunities, cultural assets and services to those who reside here (Wannop & Danaher, 2007, p. 127).

In their study of rural Queensland communities focused on identifying why some towns thrive and others fail, Plowman et al. (2003, pp. 2-3) identified characteristics that distinguished the more innovative locations from their less innovative counterparts. Among them were: adequacy of products and services available to their residents; administrative and managerial capacity to run and promote the town; have a healthy exchange of ideas internally; and have a higher proportion of residents who had lived elsewhere. Seachange communities such as the Capricorn Coast tend either to have these characteristics or are challenged with building capacity in relation to them. It is to the extent that they can meet such challenges that seachange communities can be characterized as innovative and thriving.

Snapshots from the Capricorn Coast reveal certain aspects of an innovative community in practice. One has been the increase in cultural events, such as Great Australia Day Beach Party, Village Arts Festival and Festival of the Winds. Another has been the growth in restaurants,

tourism packages and accommodation and cultural assets like a community radio station. Besides local initiatives, the emergence of global information, communication and entertainment technologies such as broadband internet, mobile phone coverage and cable television has been significant in sustaining interconnections between the local area and the outside world.

While the seachange movement might be regarded as offering innovative opportunities to both seachangers and the community to which they move, it also creates certain tensions. Beside the evident stresses on the community's infrastructure, services, employment and ecosystems, and pressures on human and other resources to manage the change through effective town planning, there can also be conflicts in the values and ways of life between long established resident and new arrivals (Fraser, 2008, p. 24). Furthermore, the development associated with the influx of new people and money into such locations can impact on property values, exacerbating disparities in wealth, and, from a phenomenological perspective, undermine residents' sense of place.

Conceptual underpinning – learning communities

The concept of learning communities is useful in suggesting the possibility for fruitful lifelong learning encounters between new and existing forces shaped by the seachange tide. For Kilpatrick, Barrett, and Jones (2003), the term highlights communities' human element and the benefits of community members working together

Learning communities are made up of people who share a common purpose. They collaborate to draw on individual strengths, respect a variety of perspectives, and actively promote learning opportunities. The outcomes are the creation of a vibrant, synergistic environment, enhanced potential for all members, and the possibility that new knowledge will be created. (p. 11)

Such a conception might be dismissed as naïve and idealistic; however, as the writers note: "Learning through collaboration with people and groups external to the community introduces new ideas, raises awareness of new practices and exposes community members to new norms and value sets" (p. 9). Furthermore, exhibiting respect for diversity that enhances the learning capacity of a community and builds trust and encourages risk-taking can be acknowledged as an important step in promoting an innovative community of the sort Plowman et al. (2003) identified.

Kilpatrick *et al.* (2003) go on to identify groups and process that contribute to the constitution of learning communities. Firstly, *communities of practice* have been defined as "individuals with common expertise participating in an informal relationship to resolve a shared problem or situation that impacts upon their shared futures" (Bowles, 2003; cited in Kilpatrick, Barrett, & Jones, 2003). Secondly, *situated learning* is used to explain how the social relationships assumed to occur in communities of practice constitute the context within which knowledge is acquired and managed. This emphasises that the knowledge gained is localised and emergent from a particular context that shapes how that knowledge is employed, important considerations that can be drawn on to show how the Capricorn Coast operates as a learning community.

Thirdly, *social capital* is "defined as norms, values and networks that can be used for mutual benefit" (Kilpatrick, Barrett, & Jones, 2003, p. 8). Learning communities (and communities of practice) might be presumed to facilitate, and to depend on, the development of social capital, which maximises the value to community members of the networks and relationships within those communities. Fourthly, Kilpatrick *et al.* (2003, p. 6) identified *lifelong learning* as being, along with "learning opportunities" and "pro-active partnerships", the potential means by which community members "create new knowledge". In terms of the relationship between seachangers and established residents, the principles of learning communities demonstrate how collaboration between these parties within situated learning contexts and communities of practice might generate social capital networks that generate new knowledge and effective lifelong learning futures that benefit the community as a whole.

Climate change

In the context of the Capricorn Coast, one area where learning communities could play a significant role in reconciling sea-changers and established residents to sustainable lifelong learning futures is in relation to climate change. Indeed, of all the quite literally sea-changing forces brought in on the tides of contemporary life forces affecting this community, global warming is one of the most challenging. It impacts on ecological and economic sustainability, town planning, residential development (given risks of sea level rising), building design, energy provision and so forth.

In relation to the principles of communities of practice and situated learning, there are particular

cogent, local reasons why addressing climate change might be argued to be of special significance for this community's lifelong learning future. The first reason relates to causes. Much of the wealth of the community currently derives from links to coal reserves in the Bowen Basin to the west and north of the Capricorn Coast, and from the beef cattle industry in surrounding environs, both of which significantly contribute to greenhouse gas emissions in the form of carbon from coal and methane from cattle. Having a basis in economic staples that contribute to the cause of global warming, the community has a vested interest in contributing to solutions to this problem. The second reason relates to effects. Besides the impacts mentioned above, significant rises in average temperatures will have debilitating effects on climatic characteristics that contribute to attracting people to the community now, as well as the iconic tourist attraction of the Great Barrier Reef.

Another reason for local action on climate change relates to the concern that the wealth generated from regional and rural location tends to be removed from the area and transferred into profits for companies and corporations whose staff and shareholders are located elsewhere. That is, within the Australian experience as elsewhere, there has been a suspicion that while much of the nation's productive output derives from mining, tourism and pastoral enterprises in regions such as this one, wealth, power and influence tends to be concentrated in metropolitan centres in the southeast of the country. This sentiment might be regarded as part of the enduring metro-centrism: the idea that while regions might produce wealth in the form of raw material and agricultural produce it is expertise and knowledge networks generated in central metropolises that shape the ways in which this natural wealth is translated into dollars and cents. In other words there is a constituent alienation from natural wealth to financial wealth wedded to a displacement from the regions, the margins, to the centre.

The concept of inalienable interconnectivity (Danaher, 2006) can be recognised as one way of resisting such a displacement. Inalienable interconnectivity can be understood as

...a conception of lifelong learning as an inalienable value, part of the education of every citizen, and which is based on the principle of interconnectivity. This model would promote the interconnectedness between the local and the global, the physical and the spiritual, the learner and the learning experience. It would provide pathways, create partnerships, and fashion

pedagogies that are aimed at addressing this paradox: how to ensure the inalienable value of education in an interconnected world. (p. 56)

In the context of climate change, this model of lifelong learning can be extended as a means of resisting the alienation of ecological wealth into corporate wealth, and seeking to emphasise the interconnectivity of human and ecological systems in seachange learning communities.

Carbon trading schemes provide a mechanism for generating investment into the areas where that natural, ecological wealth has been generated and from where it has been displaced. Indeed, if the principles informing carbon trading were extended to include other sources of greenhouse emissions such as methane, there would be a basis from diverting profits generated from cattle and coal industries not into metropolitan corporations but rather into a range of local initiatives and projects aimed at building ecological sustainability within the community and addressing the challenge of climate change.

Carbon offsets might be invested in a range of initiatives located within the region that draw on local knowledge and emergent scientific understanding to trial innovations in addressing climate change. Possible projects are:

- Reafforestation to provide carbon sinks
- Alternative energy generators such as solar, wind and tide
- Eco-tourism and education resorts and resources
- Building design initiatives
- Town and regional planning

It would seem that a wholistic, interconnected approach across a range of fields would be appropriate to address this challenge. In making proactive solutions to climate change a focus, there is a commitment to exploring the inalienable interconnectivity of lifelong learning futures in practice.

There is a compelling precedent of learning communities being generated in regional Australia in action in response to a major ecological threat. In 1989, the Australian federal government established the National Landcare Plan to address the critical issue of land degradation in Australia (Toyne, 2006). The Landcare movement emerged when the National Farmers Federation, the peak body for pastoralists, and the Australian Conservation Foundation joined forces to address an issue of particular concerns to them both. That groups with such seemingly disparate worldviews and values as environmentalists and farmers should

agree to cooperate in this way demonstrates how dialogue rather than conflict is the best way to forge sustainable learning communities. As Landcare founder and former head of the Australian Foundation for Conservation, Phillip Toyne, remarked:

It is obvious to me that there can be no sustainable solutions to mind boggling problems like Global Warming, depleted fisheries, and land clearing without engaging with miners, farmers, foresters, fishermen - all those, who if they are not engaged in the ecological and economic solutions we need, are simply part of the problem. (Toyne, 2006)

Landcare groups remain active in combating land degradation throughout Australia; the local group in the Capricorn Coast is regarded as a particularly significant local resource.

Such shared commitment to the ecological sustainability of a region evidently acts as a powerful impulse for overcoming disparities in value systems and worldviews and creating a space for co-operative action. It eloquently demonstrates how a tide of new ideas and energies can converge with long established values and attachments to land and community in responding to threats to the basis of that attachment.

Learning communities and ecologically sustainable lifelong learning futures

Such projects and partnerships promoting innovations in energy and ecological sustainability can be understood as learning communities in practice. In relation to communities of practice, they involve “individuals with common expertise participating in an informal relationship to resolve a shared problem or situation that impacts upon their shared futures” (Bowles, 2003; cited in Kilpatrick, Barrett, & Jones, 2003). In relation to situated learning, the social relationships generated in communities of practice would constitute the context within which knowledge is acquired and managed. Accordingly, they would respond to the particular localised and contextualised challenges climate change presents to this community.

Such initiatives could facilitate, and draw from, the development of social capital, demonstrating the value to community members of the networks and relationships within those communities. And it is evident that these projects and partnerships support Kilpatrick *et alia*’s (2003, p. 6) contention of *lifelong learning* as being, along with “learning opportunities” and “pro-active

partnerships”, the potential means by which community members “create new knowledge”, in this case the knowledge to live sustainably with and in a particular ecology. In so doing, the Capricorn Coast might provide a model of an innovative seachange community building the capacity for an ecologically sustainable lifelong learning future.

We might imagine how such new knowledge could be expressed at the 26th Lifelong Learning conference projected, on current schedule, for 2050. Innovations in building design mean that proceedings are conducted perfectly comfortably in natural air conditioning. The conference is powered by energy drawn from alternative sources: solar, wind and tidal generators which are especially attuned to local conditions and variations. The food and drink enjoyed by delegates is generated locally drawing on innovations in biotechnology. And delegates have arrived at the conference via the latest developments in solar powered passenger gliders and sailing ships designed to emit zero greenhouse emissions.

Beyond the ecological utopia here outlined, this vision is more significant in terms of its relation to lifelong learning futures, seeking to promote a form of inalienable interconnectivity situated in its ecological context, attuned to outside influences and global currents, and open to new ideas. To return to the origin of sea change in Shakespeare’s *The Tempest* and the spirit Ariel’s song:

*Nothing of him that doth fade
But doth suffer a sea-change
Into something rich and strange.
Sea-nymphs hourly ring his knell:
Ding-dong.
Hark! now I hear them, ding-dong, bell.
The Tempest, 1. 2 (Shakespeare, 1980, p. 23)*

It might be that by generating fruitful learning communities locations like the Capricorn Coast, the communities can develop ecologically sustainable and creative lifelong learning futures attuned to such a sea change, rich and strange, and attractive to sea-nymphs.

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TELEOLOGICAL PRESSURES AND ATELEOLOGICAL POSSIBILITIES ON AND FOR A FRAGILE LEARNING COMMUNITY: IMPLICATIONS FOR FRAMING LIFELONG LEARNING FUTURES FOR AUSTRALIAN UNIVERSITY ACADEMICS

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ABSTRACT

This paper applies the teleological–ateleological lens to the activities of a group of postgraduate and early career researchers at an Australian university. Given the tensions between organisational imperatives and individual aspirations, there are mixed signals about whether the group can be accurately and appropriately considered a learning community.

KEYWORDS

academic work – ateleological – learning communities – teleological – universities

INTRODUCTION

The teleological–ateleological distinction (Introna, 1996), which is conceptualised below, constitutes a useful conceptual lens for analysing and evaluating potential learning communities within large organisations and from a lifelong learning perspective. While it is important to eschew an institutional–individual binary in favour of more fluid and situated understandings of whether and how small groups engage in lifelong learning in such organisations, there is nevertheless value in analysing the juxtaposition of system-wide imperatives and personal aspirations in relation to workplace learning.

This paper applies a teleological–ateleological lens to the activities of a group of postgraduate and early career researchers at an Australian university. For the past three years, members of the group have sought both individually and as a group to enhance one another's and their own skills and outcomes in academic research and publishing. The organisational imperatives have included the former Australian Government's Research Quality Framework and consequent university and faculty research management plans and workload allocation models, while the group's initiatives have included fortnightly meetings, annual research symposia, writing workshops, edited publications and the beginnings of strategic alliances with other groups within and outside the organisation.

The paper identifies some areas of possible convergence between the organisational imperatives and the individual aspirations that might usefully be pursued more systematically. At the same time, there are significant dissonances between these imperatives and aspirations that are inefficient and unproductive at best and debilitating and self-defeating at

worst. This analysis suggests shared and specific responsibilities for all stakeholders in the academics' lifelong and workplace learning if the potential of that learning is to be harnessed and enhanced.

More broadly, the author concludes that there are mixed signals in relation to whether the postgraduate and early career researcher group can be accurately and appropriately considered a learning community from a lifelong learning perspective. On the one hand, the ateleological half of the conceptual lens highlights encouraging possibilities in the group's energy, resilience and ongoing commitment to lifelong learning. On the other hand, the teleological half of the lens emphasises some countervailing pressures that might weaken these possibilities. These teleological pressures and ateleological possibilities suggest in turn significant implications for understanding and hopefully nurturing fragile learning communities, thereby framing their lifelong learning futures.

The paper is divided into five sections:

- A conceptual framework focused on the teleological–ateleological distinction and learning communities;
- A brief description of the group;
- An account of the group's teleological pressures;
- A consideration of the group's ateleological possibilities;
- A conclusion that links those pressures and possibilities with the group's status as a potential learning community and the broader framing of lifelong learning futures for Australian university academics.

CONCEPTUAL FRAMEWORK

The teleological–ateleological distinction is not seen as a fixed binary but instead as two clusters of characteristics of decision-making. Introna (1996) elaborated the distinction in his

framework of nine attributes of an information systems design process, as illustrated in Table 1 below. (Inevitably presenting the clusters in oppositional tabular form can be seen as

teleological and normative, whereas the relationship between them is more iterative and nuanced than can be depicted here.)

Attributes of the design process	Teleological development	Ateleological development
Ultimate purpose	Goal/purpose	Wholeness/harmony
Intermediate goals	Effectiveness/efficiency	Equilibrium/homeostasis
Design focus	Ends/result	Means/process
Designers	Explicit designer	Member/part
Design scope	Part	Whole
Design process	Creative problem solving	Local adaptation, reflection and learning
Design problems	Complexity and conflict	Time
Design management	Centralized	Decentralized
Design control	Direct intervention in line with a master plan	Indirect via rules and regulators

Table 1 Teleological and ateleological development systems (Introna, 1996, p. 26, as cited in Jones, Luck, McConachie & Danaher, 2006, p. 58)

Instead of specific attributes being taken up in this paper, the focus is on a distillation of the different assumptions about and approaches to decision-making represented by the two clusters of characteristics. The important caveat noted above about not presenting these clusters as a mutually opposed binary notwithstanding, it is possible to identify the following sets of ideas:

- **Teleological decision-making** favours centralised, top-down action emphasising organisational hierarchy and official positions and valuing the writing of and adherence to rational strategic plans with individualised accountability and performance indicators;
- **Ateleological decision-making** favours decentralised, bottom-up action emphasising separate and shared interests and diverse talents and valuing the emergent and holistic expansion of mutual benefit and social capital.

The notion of learning communities advocated here aligns closely with this distillation of ateleological decision-making. While certainly not the only available definition, the following characterisation of the term encapsulates that alignment:

Learning communities are made up of people who share a common purpose. They collaborate to draw on individual strengths, respect a variety of perspectives, and actively promote learning opportunities. The outcomes are the creation of a vibrant, synergistic environment, enhanced potential for all members, and the possibility that

new knowledge will be created. (Kilpatrick, Barrett & Jones, 2003, p. 11)

What is common to these distillations of ateleological decision-making and learning communities is a set of principles and values that are crucial in framing future lifelong learning for Australian university academics:

- Respect for individual agency;
- Concern for and empathy with others;
- Conceptualisation of capital and power as positive, diffuse and diverse;
- Recognition of multiple interests and viewpoints;
- Commitment to outcomes that align rather than oppose individual and institutional aspirations.

The postgraduate and early career researcher group

The group discussed in this paper consists of postgraduate students, early career researchers (both those currently completing their doctorates and those within the first five years of having done so) and more experienced academics in an Australian university. The group emerged in one faculty but members have joined from at least one other faculty. While the group existed prior to the author's involvement in it, the discussion here focuses on the period of that involvement, from mid-2005 to the present.

Group membership, as assessed by meeting attendance, varies from four or five to around 25 to 30. Most members are qualitative researchers, although a few engage in quantitative research, and they pursue a wide range of paradigms (from

interpretivism to critical theory to poststructuralism) and methods (from action research and case study to discourse analysis and narrative inquiry to autoethnography and phenomenography). While all members conduct educational research, that phenomenon is understood broadly, with fields of focus ranging from early years and school education to postcompulsory and university education and from learners and/or educators to formal and/or informal domains of learning and teaching.

Members attend meetings at two of the university's three Australian campuses, linked via videoconference or teleconference facilities as available. Most members are full-time academic staff members, some of whom are studying part-time; the group also includes some full-time doctoral candidates and more recently a few masters students. The group has an electronic space for lodging such items as meeting notices and potentially useful readings, but this is not easily accessed by off-campus members and is not used by all group members.

Since mid-2005, the group's focus has broadened considerably. While the practice of fortnightly meetings has been maintained, their content has extended from an initial interest in different research methods to discussing individual members' current writing activities and published articles and planning an annual research symposium (the first in 2006 consisting of 12 presentations and one forum and the second in 2007 consisting of 20 presentations, two group discussions among the presenters and one focused conversation involving experienced researchers from across the university). Three writing workshops were conducted in 2007, each related to a collective writing project (two special theme issues of a refereed journal and one edited book).

Members have been consciously concerned about the need to strive for balance in two specific aspects of the group's operations. The first has been between meetings being informal and friendly opportunities for sharing ideas and encouraging one another and being vehicles for achieving specific and well-defined outcomes. The second has been between drawing on the experience of mentors (the first having officially recognised responsibility in that role, others sharing more informally) and highlighting the interests and voices of members.

The group's teleological pressures

The teleological pressures on the group derive principally from the intersection of late capitalism, economic rationalism and corporate

managerialism (Danaher, Gale & Erben, 2000) as they have been applied to Australian universities for at least the past two decades. One illustrative manifestation of this intersection has been the phenomenon whereby governments provide less public funding of universities while insisting on increased levels of accountability and compliance. Another manifestation has been the emergence of what Marginson (2002) called the 'enterprise university', whose characteristics most relevant to this discussion are as follows:

- Strong executive control with presidential-style leadership, bearing significant institutional autonomy and capable of strategic initiative, and mediating much or most the relationships between on one hand the external world (government, professions, civil society), on the other hand the internal world of the academic units;
- University missions, governance and internal administration (including quality assurance and performance regimes) that are increasingly business-like in character, though the University does not become simply another business;
- The increasing marginalisation of traditional academic governance – academic boards, faculty assemblies and the like – and its partial replacement by executive groups, and new semi-formal and informal IT-based mechanisms for communication and top-down consultation;...
- The growing salience of institutional identity *vis a vis* disciplinary identity; and the weakening of academic identity in University organization, with more flexible and generic structures increasingly used in teaching and research, alongside more traditional academic units - and at the extreme, certain erstwhile academic decisions now made by non-academic units e.g. in international recruitment, IT or marketing;... (2002, n.p.)

The point to emphasise in this discussion is that both steering at a distance and the highlighted features of the enterprise university are much more likely to recognise and reward teleological than ateleological decision-making; they are also less likely to facilitate the emergence of learning communities with the principles and values articulated above. A corollary of this situation is that the options for framing lifelong learning futures for university academics are liable to be

more restrictive and less enabling than might otherwise be the case.

It is against this national backdrop, strongly influenced by equivalent forces in other western countries (Enders & Jongbloed, 2007), that the teleological pressures exercised on that group by the institution where the postgraduate and early career researcher group is located are to be understood. In an environment where universities compete for scarce resources and must demonstrate to government their compliance with a range of policies and indicators, individual academics are increasingly required to demonstrate equivalent compliance and to justify their salaries and their working time. This demonstration ranges from writing research plans with targets of varying duration to recording reflections on students' learning in individual courses each semester to completing an annual performance monitoring form – all clearly instruments of teleological decision-making. While the importance of achieving and reporting outcomes would be accepted by most academics, the sheer weight of the administrative burden associated with these processes is increasingly seen as irksome and both an unwelcome distraction from and an inefficient alternative to the space and time needed to achieve real and sustainable outcomes in teaching and research.

In the case of the group under discussion here, these teleological pressures have resulted in some understandable confusion and uncertainty about how best to engage with the multiple and often competing requirements of contemporary academic work. Examples of what has prompted this confusion and uncertainty, themselves manifestations of a fractured and perhaps dysfunctional higher education system, include the following:

- A debate about the meanings of the term “early career researcher”. While there was a suggestion to align the group’s definition of this term with the Australian Research Council’s definition of someone within the first five years of attaining a doctorate, the group retained a wider and more inclusive definition that applied to nearly all group members and that avoided what was seen as unnecessarily dividing the group into different categories of researchers.
- A discussion of the purpose and value of centrally mandated research plans. On the one hand, there was a view that such plans are helpful to individuals in clarifying goals and in explicating for achieving those goals. On the other

hand, there was a feeling that not linking individual goals and strategies with the allocation of resources to enable them to occur was a recipe for failure, and furthermore that the individuals concerned would be blamed for such failure without having the capacity to avoid it. From this perspective, the research plans were viewed variously as opportunities for strategic thinking and/or as vehicles of institutional surveillance and control.

- A perception by some individuals outside the group that it was exclusive and/or potentially a threat to positional authority and/or the attainment of institutionally imposed performance indicators. This perception was particularly perplexing to group members, who saw themselves as inclusive and as individually and collectively working hard to attain research outcomes that would benefit equally individual members, the group and the institution. This perplexity generated considerable discussion about the relative merits of adopting a higher or a lower profile in the institution, a conversation that is continuing.

The acceptance that not everything that can be understood as teleological is necessarily an onerous pressure notwithstanding, the examples presented here have in common the operation of forces outside the group that are seen as at best neutral and at worst hostile in relation to the group’s interests and aspirations. The corollary of centralised, top-down decision-making within an organisational hierarchy is a generally implicit devaluing of the voices and value of those positioned lower in that hierarchy – including postgraduate students and early career researchers. The effects of this corollary are potentially counterproductive and corrosive; certainly they do little to contribute to the generation of learning communities and to help to frame productive and sustainable lifelong learning futures for individual academics and the universities to which they belong.

The group’s ateleological possibilities

Despite these teleological pressures, the group has explored – enthusiastically and with increasing success – the possibilities attendant on ateleological decision-making. The insistence on emergent and holistic group identity has been seen in such strategies as sharing the responsibilities of chairperson and sometimes of caterer among group members and ensuring that most meetings contain opportunities for informal

communication of current activities and future priorities. At the same time, the collaborative writing projects have provided a space for individual members to achieve institutionally valued research outcomes within inclusive, supportive and generative frameworks. Each project has had a specific focus (the intersection between the value of a project and its ethical foundations; designing doctoral research; and conducting research in areas that unsettle the researcher and in ways that hopefully disrupt taken for granted assumptions) and associated organising questions designed to maximise overall coherence while encouraging diversity of topic and approach.

The collaborative projects have been significantly advanced by conducting writing workshops. Modelled on the REACT process of facilitating the publication of research about university learning and teaching developed at Central Queensland University (<http://sleid.cqu.edu.au/REACT/>), the workshops have enacted a set of processes centred on providing targeted feedback, beginning with a summary of what readers believed were the main points of the text, proceeding to identifying the text's perceived strengths and then to suggestions and questions that the author might wish to consider and closing with the author's opportunity to seek clarification of particular aspects of the feedback. More importantly, the processes have been consciously based on specific principles, including the explicit valuing of multiple viewpoints and the demonstration of respect for all participants.

Another demonstration of the group's exploration of teleological possibilities has been the annual research symposia, moving from two half days in 2006 to two full days in 2007. Again the selection of a theme was effective in giving some coherence to each symposium while giving free rein to the exploration of that theme from a wide range of perspectives. The second symposium entailed presentations by individuals from two other faculties and one other campus of the university, generating considerable interest in research in other disciplines and paradigms. The work involved in organising the symposia was shared widely among the group; both events generated a high level of engagement and enthusiasm.

Yet another example of the possibilities of teleological decision-making has been discussions with two other groups in the university. These have begun as informal conversations at the campus coffee shop, which have been followed by meetings between the

groups. A prominent feature of conversations and meetings alike has been the establishment of rapport and trust, based on a respect for the groups' separate and shared interests and concerns. One outcome of that rapport and trust was that several members of one of the other groups presented at the aforementioned research symposium in 2007. It is hoped that these initially tentative efforts at *rapprochement* will be able to be consolidated and extended in 2008 and beyond.

At one level, the strategies outlined here might be considered unremarkable and even pedestrian. At another level, given the competition for resources and the associated work intensification for academics across the Australian higher education sector outlined above, and in view of the teleological pressures on academics' work noted in the previous section, these strategies can be seen – and are certainly regarded by group members – as potential lifelines in an increasingly turbulent and stressful environment. Certainly they are posited on the recognition of diverse talents and directed at enhancing mutual benefit and the expansion of social capital – all key elements of both effective learning communities and sustainable lifelong learning futures for Australian university academics.

CONCLUSION: IMPLICATIONS FOR LEARNING COMMUNITIES AND FRAMING LIFELONG LEARNING FUTURES FOR AUSTRALIAN UNIVERSITY ACADEMICS

In relation to the definition of learning communities presented above, it is clear that if the postgraduate and early career researcher group is a learning community it is an extremely fragile one. On the one hand, group members “share a common purpose” and “collaborate to draw on individual strengths, respective a variety of perspectives, and actively promote learning opportunities” (Kilpatrick, Barrett & Jones, 2003, p. 11). On the other hand, the longer-term outcomes associated with “the creation of a vibrant, synergistic environment, enhanced potential for all members, and the possibility that new knowledge will be created” (p. 11) have been established less definitively. Not that aspects of such creation, potential and possibility are not evident in the group's operations to date; it is more a matter of the long-term sustainability of those outcomes. It is conceivable that even more onerous teleological decision-making and/or a change in the group's membership might result in the group's activities being scaled down or ending altogether.

With regard to framing lifelong learning futures for these and other Australian university academics, the principles and values distilled above from ateleological decision-making and conceptions of learning communities provide both a way forward and a benchmark for prospective academic work. From one perspective, phenomena such as individual agency, empathy with others and diffuse and diverse notions of capital and power are likely to remain unrealised aspirations in an environment dominated by discourses of compliance and conformity. From a very different perspective, lifelong learning futures – understood here in terms of individual fulfilment and collective empowerment – can indeed change and transform theoretical imaginings and material realities if they are based on these and other philosophical and spiritual foundations. Such are the ateleological possibilities animating and encouraging the fragile learning communities and framing the lifelong learning futures of academics working in contemporary Australian universities.

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DEVELOPING GRADUATE ATTRIBUTES FOR LIFELONG LEARNING – HOW FAR HAVE WE GOT?

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ABSTRACT

How successful have universities been in developing graduate attributes needed for lifelong learning? In this paper we explore progress to date, discuss some of the factors that have impacted on initiatives to develop attributes and suggest a way forward that recognises the centrality of academic engagement in this area.

KEYWORDS

graduate attributes – lifelong learning – academic engagement

INTRODUCTION

Ensuring that graduates leave university with well developed attributes that prepare them for employment and for lifelong learning is now well established as a desirable outcome of higher education worldwide from the perspective of employers, governments and university leadership. Australian universities have typically responded by developing a list of graduate attributes as part of their strategic plan and making it available on the university website. Further, they have engaged in activities aimed at integrating the teaching and assessment of attributes as part of course and program development processes and through strategic initiative projects.

How successful have institutions been in their endeavours to ensure that their graduates have the attributes needed for work and for life? In this paper we consider progress to date, we reflect on factors that have had an impact on initiatives and, in particular the role that academic beliefs play in influencing outcomes, and highlight the importance of beliefs for the development of graduate attributes.

Graduate Attributes and Lifelong Learning

Graduate attributes – variously designated generic skills, transferable skills, employability skills, and soft skills – are seen as an essential outcome of successful university study, employment and life. There is ongoing discussion and debate about terminology and variations in meaning of graduate attributes. ‘Generic graduate attributes’ are generally understood to refer to “the skills, knowledge and abilities of university graduates, beyond disciplinary content knowledge, which are applicable in a range of contexts and are acquired as a result of completing any undergraduate degree (Barrie, 2006, p. 217). Similarly,

“graduate attributes are the qualities, skills and understandings a university community agrees its students should develop during their time with the institution. These attributes include but go beyond the disciplinary expertise or technical knowledge that has traditionally formed the core of most university courses. They are qualities that also prepare graduates as social agents of social good in an unknown future.” (Bowden, Hart, King, Trigwell, & Watts, 2000)

All Australian universities have a core list of graduate attributes. These typically include communication, team work, analytical, problem solving, and information literacy skills. In addition, skills related to lifelong learning such as self-management and metacognitive skills including goal setting, monitoring and evaluating learning processes and outcomes, are also included in graduate attribute lists.

The link between graduate attributes, employability and lifelong learning is well recognised nationally and internationally (Candy, Crebert & O’Leary, 1994; Hager & Holland, 2006; Harvey, 2006). Employers, professional bodies, governments, students and graduates have reinforced the need for universities to ensure that graduates possess attributes needed for work and for life (ACNielsen, 2000; Precision Consulting, 2007). Moreover, universities themselves, “... clearly want to produce graduates with the skills that are highly regarded by employers and are seen to contribute to the country’s prosperity and social capital” (Precision Consulting, 2007, p. 1).

Universities have implemented a number of approaches to developing graduate attributes. These include defining a distinctive set of graduate attributes as part of the institutional strategic plan or similar; developing policies, guidelines and systems to support the development of the identified attributes; altering course approval and review requirements to ensure inclusion of graduate attributes in curricula; and by initiating institutional projects

and strategic initiatives to support the development of graduate attributes.

At the curriculum level, approaches have included a focus on mapping of attributes and the development of learning outcome statements across courses and programs; development of new 'stand alone' courses including 'capstone' ones; inclusion of sessions on selected attributes within a discipline course taught by outside specialists such as those from the Library, or Learning or Communication Skills units; use of work integrated learning experiences; redesign of the curriculum to embed attribute development in a single course or across a whole program as part of disciplinary content and taught in context by the discipline teacher. In some cases, assessment tasks have been modified to assess particular attributes. A very small number of initiatives have attempted to align learning objectives, teaching strategies and assessment tasks to support the development of attributes (Fallows & Stephen, 2000).

In addition, some universities have implemented ways of supporting the recording of attribute attainment through e-portfolios or other software applications. Some universities have also provided personal profiles or Personal Development Plans to supplement standard transcripts of achievement (Hager & Holland, 2006; Fallows & Stephen, 2000).

Every one of these approaches requires the involvement of academic staff, either directly or indirectly. The effectiveness of the approach relies heavily on the willingness of academic staff to engage in this work and where necessary to change the way they design, teach and assess within their discipline.

Progress to Date

How far have universities got with the various initiatives that they have implemented to ensure that their graduates leave university with well developed graduate attributes? Based on the literature and our experiences in designing and implementing large scale graduate attributes projects, we conclude that to date outcomes across the sector have not been as promising as expected. The identification and in particular, the integration, assessment and ways of evidencing attainment of graduate attributes, have posed significant challenges for universities (de la Harpe & Radloff, 2003a; 2003b; 2006; Harvey, 2006).

The national auditing body, the Australian Universities Quality Agency (AUQA), has identified in many of its audit reports

(<http://www.auqa.edu.au/qualityaudit/universities/>) difficulties with the development of graduate attributes (Outcomes of an analysis of the 39 AUQA audit reports available in 2007 showed that of the 39 reports eight reports (20%) included a recommendation relating to the need for further work on graduate attributes. Seven reports (18%) included an affirmation that the university had identified the need to address a gap relating to graduate attributes. Only five of the 39 reports (13%) included a commendation relating to achievement in the area.

Some examples of audit report recommendations included ensuring that the university had strategies and resources in place to embed graduate attributes, revising the list of graduate attributes to ensure their relevance, accelerating the implementation of already developed plans, extending implementation across the whole institution, and linking graduate attributes to employer requirements. In addition, ten audit reports (26%), while not making specific recommendation or affirmations, included critical comments or advice relating to graduate attributes. Some examples of issues raised in these reports included lack of awareness, understanding and/or 'buy in' of staff and students for the university graduate attributes, lack of consistent implementation of attributes in terms of teaching, learning and assessment, and the need for students to better recognise their own achievement of attributes.

Furthermore, reports on projects undertaken at Griffith University (Crebert, 2002) and at Macquarie University (Sumsion & Goodfellow, 2004) to embed graduate attributes into curricula highlight the complexities and difficulties encountered including confusion over terminology, lack of conceptual and methodological rigour in the selection of attributes, lack of attention to the disciplinary context, the political and managerialist drivers used, and lack of adequate resources to support initiatives. The authors of both papers caution against assuming that embedding graduate attributes is a simple task that can be achieved by following a 'how to guide'.

Based on outcomes to date it is clear that despite efforts over many years, "...the overall picture in higher education systems around the world is one of patchy implementation and uptake of...graduate attribute initiatives" (Barrie, 2006, p. 218).

Factors Impacting on Outcomes

A number of factors have been identified as having a significant impact on the success or otherwise of efforts to develop graduate attributes. Based on our analysis of initiatives that we have been involved in aimed at embedding graduate attributes in three Higher Education contexts – within a single course, a multi major program and in all programs across a whole institution – a number of factors associated with successful initiatives were identified including, having:

- a clear and compelling rationale for developing graduate attributes
- a strong leader or leadership team that can champion and drive the project
- a well designed project brief that is integrated into core business, is doable and takes into account institutional capability and readiness
- a well developed communication plan that uses multiple media and provides clear, consistent and compelling messages
- an appropriate and aligned policies and infrastructure with sufficient resources, staff development opportunities and reward and recognition
- a focus on creating and celebrating short term wins
- a mechanism for monitoring progress and adapting to changing contexts and needs
- a strategy for long term embedding of changes into normal practice
- (de la Harpe & Radloff, 2006)

Other work both in Australia and overseas looking at the effectiveness of dissemination and implementation of change and innovations in teaching and learning in universities has identified similar factors (McKenzie, Alexander, Harper & Anderson, 2005; Scott, 2003; 2004; Southwell, Gannaway, Orrell, Chalmers & Abraham, 2005). Research outcomes from business and psychology literature in the area of change management point to the same factors (Gardner, 2006; Kotter, 1996; Kotter & Cohen, 2002; Wycoff, 2004).

The Missing Factor

A factor that appears to be often overlooked when implementing projects aimed at developing graduate attributes, is the role that academic staff beliefs and attitudes play in the success or otherwise of such initiatives. As Newton (2003, p. 50), points out, the perspectives of academic staff who are the “‘front-line’ actors engaged in implementation of policy” related to curriculum

development are often neglected when implementing institutional change projects. This is especially the case when institutional change efforts adopt a ‘top down’ managerial approach. Overlooking academic beliefs is a significant oversight given that the values and beliefs that academic staff hold regarding learning and teaching, have a major impact on their engagement with institutional efforts to respond to imperatives such as the development of graduate attributes and impact on their perceived ownership of the curriculum.

Academic staff are or should be key players in initiatives to reshape the curriculum to include a focus on graduate attributes. However, they may hold beliefs about their role – in particular, what the goals of the curriculum are and how best to achieve them – which may be at odds with current literature on student learning, university ‘management’ views, expectations from employers of graduates and external agencies such as audit bodies. In addition, their beliefs about the importance of graduate attributes, the task of integrating and assessing them, and their roles and responsibilities in relation to this work may differ markedly from one another (de la Harpe & Radloff, 2003b; la Harpe & Radloff, 2006; de la Harpe, Radloff & Wyber, 2000).

Moreover, it is often difficult for academic staff in the disciplines to define and then support their students to develop increasingly complex levels of attributes throughout their program of study. In particular, as Hinchcliffe and Boud note, helping students to develop the metacognitive skills to know when, where, how or whether to use a particular graduate attribute in increasingly complex “real world” situations is not an easy task (Hager & Holland, 2006). Thus, despite the rhetoric, such metacognitive skills are not systematically developed or assessed.

Further, academic staff may lack confidence and the necessary knowledge and skills as well as awareness of industry requirements needed to develop graduate attributes in the context of their discipline (Yorke & Harvey, 2005). However, “developing students’ employability skills requires teaching staff with suitable skills, resources and awareness of current industry practice” (Precision Consulting, 2007, p. 37). This reinforces the importance of academic staff beliefs and attitudes about graduate attributes, the impact of these on their motivation and ability to engage in this work, and the need to address and where necessary change beliefs.

As de la Harpe & Radloff (2006, p. 31) note, there is a need to address “staff perceptions of

the value of 'generic' skills and the need to integrate them into *their* curriculum...Typically staff value content over skills and see their role primarily in teaching their discipline content...[and they] may need support to take ownership for helping students to develop skills, to overcome anxiety about their ability to teach and assess skills and to make the necessary changes to the curriculum". In the next section, we focus on engaging academic staff.

Engaging Staff

For staff to engage in initiatives aimed at developing graduates attributes, requires that they consider the beliefs that they hold about developing attributes and their role and responsibilities in the task. This may require that they change their beliefs, something that is not easy to achieve. While organisational readiness, the right leadership, aligned systems and resources are all necessary conditions to support such change (Heifetz, 1994; Kotter, 1996; Kotter and Cohen, 2002; Scott, 2003; 2004), they are not sufficient. In order to help staff change their beliefs, the focus needs to be on how academic staff learn and change their beliefs in the context of their discipline.

At the heart of changing beliefs is learning and reflection. Social Constructivist theory provides an explanation for how learning takes place and how it can be supported. Social Constructivism recognises that learning is the result of active meaning making by each learner rather than passive absorption of information transmitted by an 'expert'. Learners initiate and direct their own learning and learn with and from one other through negotiating meaning and testing their own understanding. This process can be facilitated by colleagues, more experienced peers, an external expert, a professional facilitator or the learner him/herself.

Recent work by Howard Gardner (2006) provides insight into changing beliefs, or as he calls it, 'mind change'. Gardner has identified seven levers that underpin mind changes, namely:

1. Reason – a well reasoned argument, rationale and analysis of the facts
2. Research – relevant formal and /or informal data to verify or cast doubt
3. Resonance – gut feel that it is right
4. Representational redescription – multiple modalities that express the desired change
5. Resources and rewards – a source of reinforcement serves as encourage and reward for action

6. Real world events – external drivers or significant events
7. Resistances – strong views and perspectives that work against mind changes

University wide mind change is most likely to occur when the first six levers (facilitating factors) work together and when the resistance to change is relatively weak. Individual mind change may occur as a result of responding to one of the first six levers and overcoming resistances, the seventh lever (Gardner, 2006).

In universities changing minds or beliefs must take into account the discipline since it is widely recognised that the discipline is the focal point of academic identity and professional learning (Knight, Tait & Yorke, 2006) because "culturally, organisationally and academically, staff identify with their discipline and approach their professional life by their discipline [and] while there is evidence that a lot of teaching and learning matters are generic, there are issues that are specific to disciplines" (Hare, 2007, p. 5).

Thus, support for changing beliefs is best provided as close as possible to where curriculum changes are required. Such support may come from within or external to the discipline. Support needs to be respectful of the language, conventions and ways of knowing of the discipline (de la Harpe & Radloff, 2001). In order to build and maintain professional relationships, mutual respect and understanding, and to maximize success all areas that support learning and teaching need to work in mutually helpful ways to ensure individual staff needs are met. Examples of practice and research are needed to fully establish this approach, since to date not much practice has been documented, indeed not many instances of this approach are in operation worldwide (Knight, Tait & Yorke, 2006).

CONCLUSION

In this paper, we have shown that universities still have a long way to go to achieve the goal of developing graduate attributes. We have argued that the missing factor in this work is academic staff identity and beliefs. We propose that the only hope for the work on graduate attributes to move forward is to engage with academic staff in the context of their discipline to facilitate and support learning and change. The best way to approach this task is from the 'inside out', that is from within the disciplinary culture and with patience since, as Mark Twain reminds us, "[a] habit cannot be tossed out the window; it must be coaxed down the stairs a step at a time".

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A FRAMEWORK TO ASSIST WOMEN RETURNING TO STUDY

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ABSTRACT

This paper details the research findings concerning the perceived needs of Women into Science and Technology (WIST) bridging program students at the commencement of their student journey. The outcomes of the research were then used for the development of a student support framework entitled *Get SET for Study*. This framework can be used by students and staff as a tool to assist students plan their student journey.

KEYWORDS

enabling –bridging – women – university – science - technology

INTRODUCTION

An increasing number of women are returning to study as mature age students. Typically, in order to gain entrance into a university course, these women are encouraged to undertake a bridging program. This research is based upon the Women into Science and Technology (WIST) bridging program which was established in 1989 to increase accessibility to women entering the Faculty of Science at Central Queensland University. Nowadays the WIST program is available to all women seeking to return to study. The WIST program is flexible and self-paced, and annually enrolls over 400 students. The WIST program can be deemed as one of the first steps in the student journey.

This paper reports on the results of a research study which was conducted to identify the needs of women as they return to study. The research was designed to identify the expressed needs of women through the use of a survey instrument which was informed by focus groups and interviews conducted with stakeholders. The survey results were then used to develop a support framework. This framework is presented in this paper.

LITERATURE REVIEW

A review of the literature conducted by (Donovan 2008) revealed that adult learners and women in particular have a range of specific needs and challenges when enrolling in university. In his seminal work, Knowles (1984) identified that adult learners can be characterised by their need to focus on studying what is currently relevant and useful to them. Consequently, they are goal directed and they need to relate their current learning to their prior knowledge. Adults are usually highly motivated when they return to study and they learn best when they experience the learning. Knowles

(1984) also identified that adults prefer to have an input into the design and the evaluation of their instruction.

The author reviewed literature on adult learners' needs and challenges and found that their previous academic background, their personal and financial circumstances and their multiple roles and responsibilities impacted on their success at university. Donovan's (2008) review identified that: adult learners require support from their educational institution; support from their family and friends; and support in the form of remediation.

Specifically, it was revealed in the research literature that women required access to university staff, prompt feedback and appropriate course materials (Rahman 2002); financial support (Goodman & King-Simms, 2005; Johnson, 1996; Kantanis, 2002; Rahman, 2002); systems that facilitate networking and communication between course participants (Macrae & Agostinelli 2002); an environment that is caring and safe and promotes learning (Bankert & Kozel, 2005; Trapp, 2005); and a feeling of a sense of belonging. Scott (2006) found that providing a total experience of university also reduced attrition in university courses.

The critique of all the foregoing literature identified two gaps. The first gap concerns the identification of the needs and challenges of women who are enrolled in bridging programs. The literature appeared not to distinguish between the needs of men and the needs of women. The competing demands of family, study and, in some cases, work, have been identified as barriers for women as they engage in higher education. The notion of women as carers or nurturers comes to the fore as a challenge that women are faced with when they take on the additional role of a student. Thus whilst the review identified the needs of adult learners, there is a gap in the knowledge of the current needs and challenges of women who are returning to study through the use of bridging programs.

The second gap in the literature is in the area of frameworks. While the literature identified a number of frameworks which could be used to provide support to students when they return to study, there did not appear to be frameworks specifically designed for women enrolled in bridging programs.

THEORETICAL FRAMEWORKS FOR STUDENT SUPPORT

The literature described two frameworks designed to reflect the needs and challenges that confront students as they make the transition to university. The *Framework for Student Engagement and Mastery at University* was developed by Lawrence (2004) as a tool for identifying the nature of the skills required by students in their understanding and mastery of university culture. These skills include independent learning, critical thinking, life management skills and discipline and subject discourses. Lawrence (2004) developed the *Model for Student Success Practices at University* which identified three practices for ensuring students' successful transition to and perseverance with the university culture. These practices are as follows:

- Socio-cultural practice, including seeking help, information and feedback, participating in a group, expressing disagreement and refusing requests
- Reflective practice including observation and listening, reflection before, during and after practice
- Critical practice including critical self-awareness and critical discourse awareness (Lawrence 2004).

While the *Framework for Student Engagement and Mastery at University* identified the relevant skills required to successfully negotiate the unfamiliar university culture, the *Model for Student Success Practices at University* identified the practices needed to succeed at university.

Another framework for student support describing the affective, systemic and cognitive domains initially developed by Tait (2000), was used by Smith and Burr (2005) as a basis to provide online support to first year students. The framework included three domains representing three areas of support provided by student services.

While the above frameworks describe the needs of students in academic terms, the words and phrases might not be part of the vernacular of potential bridging program students. Similarly,

the literature review did not identify frameworks that were designed for women undertaking a bridging program. The frameworks described above can, however, be deemed useful in the design of a more encompassing support framework for bridging students.

From another perspective, the notion of Learning Communities (Longworth 1999) and Communities of Practice (Lave & Wenger 1991) have the potential to contribute to the design of a support framework for students. Learning Communities are based on principles of sharing and developing knowledge, whereas Communities of Practice have a more specific focus where the information shared, is related to a practice or an interest that is common to the members.

The foregoing considerations have been deployed in this research in the methodology and for the development of the support framework.

METHODOLOGY

A survey instrument was specifically developed for the purposes of the research. In the design of the survey instrument, the themes identified in the literature review, the focus groups with WIST students and interviews conducted with CQU staff were used to inform the statements in the survey instrument (Donovan 2007). Four focus groups each comprising of between four and six WIST students were undertaken to identify the needs and concerns of the students. Interviews were then conducted with 12 university staff associated with the WIST program. This was done for two reasons: to verify themes that had been identified in both the literature and in the analysis of the focus group data; and, to provide a further clarification of the themes that had been identified in the literature and the focus groups. The data obtained from the focus groups and the interviews was analysed through a process of reading the transcribed discussion and identifying and coding themes. This process also enabled the organization of the survey instrument into themes for the purpose of more effectively engaging students with the survey.

The list of themes generated from the above process and used in the survey instrument were:

- Need for practices or skills including time management, and "being organized"
- Need for changed attitude, to be motivated and determined
- Services including childcare, family support and information sessions

- Course content which is easily understood
- Interaction; working in groups

The survey was administered on-line and was also made available in hard copy format (Donovan, 2007).

SURVEY DATA ANALYSIS AND RESULTS

A total of 239 WIST students (52%) responded to the survey. Initial frequency analysis was carried out on the total responses received (n=239) to determine the overall trends of the responses. Additional statistical analysis of the data was conducted to determine if there were any differences in the WIST student group when analysed by age, by carer status, by location and by current status as an active or an inactive student.

The influence of student type

T-test analyses of the results showed that, in comparison with women over thirty, women under thirty years old:

- placed less importance on the need to prioritise
- were less motivated to network
- placed more importance on mentoring and support from friends, and
- were more strongly motivated to study for career planning purposes.

Similarly a t-test was conducted on the survey results with the sample divided into carers and non-carers. In that comparison those women with caring responsibilities:

- placed more importance on family support, and
- were more likely to feel guilty about taking time from their children when studying

This result suggests that women are reluctant to study when they are responsible for the care of others.

When women were compared according to their location, women who lived in towns whose populations were less than 15,000

- placed less importance on time management, encouraging feedback and the need to feel “welcomed” than those from the larger regional centres
- placed more importance on being exposed to inspirational stories and being treated by the institution as a “name” rather than a “number”.

The analysis also revealed statistically significant results for two further aspects. These were:

- active students placed more importance on studying for their career path, and
- inactive students placed more importance on being able to contact WIST staff.

Factor Analysis

A factor analysis of the survey data provided a factor solution for a grouping of the variables into eight factors. The factors were described as follows:

- Factor 1 *Group Work Support* - aspects concerning support provided for students through groups and networks for study and related support
- Factor 2 *Mattering* – a sense of belonging and the need to feel that a student “matters” through encouraging support provided by the university
- Factor 3 *Family Support* - the support provided by family and significant others to assist students to succeed at their studies
- Factor 4 *Study Capability* - students’ study skills and practices
- Factor 5 *Study Skills* – aspects concerning the need for students to plan, to establish, and to set priorities
- Factor 6 *Study Actioning* - the need for students to allocate sufficient time for study and to seek support from friends, other students and the university
- Factor 7 *Women’s Needs* - the needs which impact on the types of assistance, support and encouragement required for study
- Factor 8 *Circumstances* – aspects concerning the individual personal circumstance issues of students which impact on their success.

The eight factors are able to be collapsed to represent the four components for a framework called *Get SET for Study*. The four components are listed below and are shown in Figure 1.

1. **Support network:** Having family and significant others for support
2. **Study capability and capacity:** Possessing study skills, study capacity and having peer support
3. **Learning community:** Having the feeling that their presence matters to the university
4. **Support and resources access:** Having the capacity to meet their financial and other personal needs.

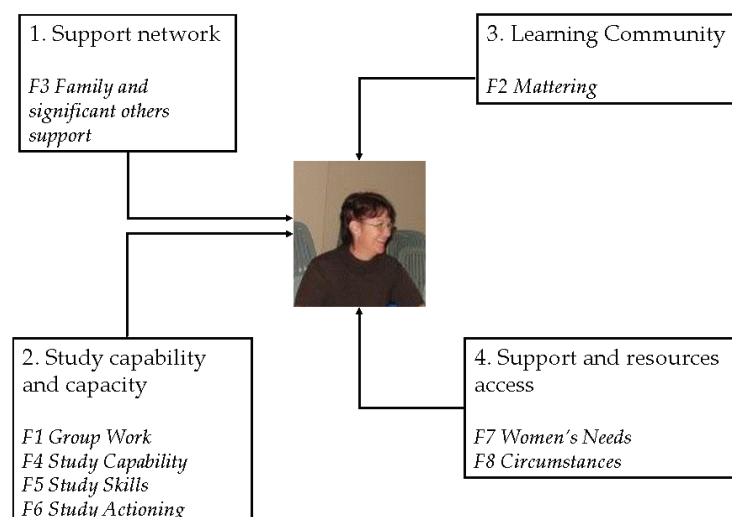


Figure 1 Framework for WIST students' needs and challenges when returning to study

Component 1 – Support Network. This represents the support provided by the student's family and friends. This research reveals that a supportive family was important. This component also represents the support that students can provide to themselves through the use of personal organizational skills. These skills result in personal gains to the student. Underlying this component is the assumption that students require a support network in order for them to succeed when they return to study.

Component 2 – Study ability and capacity. This refers to the capacity to develop and to implement study and associated skills. The development and the implementation of these skills can be assisted by peer support provided by a learning community within the WIST community of practice. Such a community can provide social connectedness that is important for learning (Fukuyama 1999).

Component 3 – Learning Community. This component reflects the importance of the students believing that their presence matters to the university. The feeling of being treated as a "name" rather than as a "number" can reduce the feelings of isolation that some flexible students experience. (Smith & Burr 2005).

Component 4 – Support and Resource access. This component recognises that women have specific needs which in some cases are gender specific and in other cases are related to the need for childcare, financial support and career advice.

CONCLUSIONS

In terms of student readiness for study this research has identified a framework which represents the major needs and concerns of women as they return to study. These largely confirm the needs as identified in the literature. The *Get SET for Study* framework can be used as a visual representation by university administrators to assist students to effectively make the transition into university. As these components have been identified by the students themselves as their perceived needs, prospective students could be more likely to respond positively to the use of the framework.

The results of this research can be used for two purposes, namely, to assist women enrolled in the WIST program and to lead to further development and research in this area. *Get SET for Study* can be used by both students and staff when the student makes initial inquiries about studying and also during their course of study. Students often feel apprehensive about returning to study so the use of a visual representation of what is needed to support students can underpin discussions with prospective students regarding the factors that they need to consider when returning to study. Factor 2 *Mattering* identified in the Factor Analysis intimates that the process of engagement is more likely to be successful if students feel valued and that their presence matters to the university. The process of discussing the four components of the framework with prospective students is likely to successfully engage with students as the components of the framework reflect the current needs of the student cohort.

Similarly, as students progress in their particular course, *Get SET for Study* can be used to evaluate students' current strengths and to identify areas where they require either further support or skill development.

Get SET for Study could also be used as a visual representation that could assist university staff to establish student's positioning within the framework and also within the broader context of academic study.

In summary, the *Get SET for Study* framework can provide a tool to establish the level of support that a student currently has or is able to access. The framework can assist students to establish their readiness for university and their level of commitment to further study.

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UNDERSTANDING THE ROLE OF CONTEXT IN LIFELONG LEARNING

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ABSTRACT

This paper challenges the way we conceptualise learning, arguing that learning involves deliberate interaction with our social, emotional, intellectual and physical contexts in order to better understand and work within them. This necessitates reconsideration of the metaphors associated with learning such as transfer, generalisation and the contextual nature of learning.

KEYWORDS

Experiential learning; contextual learning; generalisation; transfer of learning.

INTRODUCTION

All learning occurs in a context. This context may be physical, social, psychological or, as Illeris (2002) argues, the tension caused by the juxtaposition of these three spheres of human experience. Yet, there is little written in educational literature about how the context shapes the learning and, by extension, how we can increase the potential of individuals to learn in a variety of contexts.

Conceptualising learning as an active and deliberate interaction with our social, emotional, intellectual and physical contexts in order to better understand and work within them, means that we need to explore new ways of describing some of the key concepts associated with learning. This paper looks at three problematic issues relating to the theory of experiential learning, especially learning through and from work. If we are to integrate formal and experiential learning, to match the rhetoric of a learning, or knowledge, society, then we need to find new ways of understanding the role of context in learning, the nature of transfer of competence across different work contexts and to redefine generalisation.

The paper commences with a brief outline of the author's completed PhD research on which this conceptual paper is based, before discussing of what is needed to prepare and support experiential workplace learning in contexts characterised by change and uncertainty. It is this form of lifelong learning that is addressed in this paper

Outline of the research

The research thesis, on which this paper is based, focused on the question: "How do practitioners understand the transfer of competence (that is, what they know and can do) across different

workplace contexts and how does it influence their practice?"

The research investigated the experiences and perceptions of 108 vocational education and training practitioners, who had changed jobs or whose jobs had changed, focussing on how they were able to adapt what they knew and could do at that time. The research is phenomenological, using a methodology designed to collect and analyse data from the participants without decontextualising it. The collection of data occurred over a period of five years and was undertaken in two stages, with the second stage validating and building on the first stage. Minimally structured interviews and a questionnaire were the main data collection tools used. Some descriptive statistics were used but the research was qualitative in intent. The questionnaire used in the second stage of the research was grounded in practice as participants used "stories" of their own experience as the basis of their responses.

RESEARCH OUTCOMES

Over the past two decades, the rhetoric of teaching and learning practice has reflected a move from a teacher-centric approach to learning to one which is more learner-centred. The findings of my PhD research suggest that this move needs to go even further. Teaching and learning needs to be context- rather than content-centred, with learning understood as the knowledge and skill developed by interacting with contexts in thoughtful, reflective processes.

108 experienced educational practitioners contributed to these findings. It is their individual and collective voices which underpin these research outcomes. It is imperative that the practical wisdom these voices represent is heeded if our work and learning is to continue to keep pace with societal and global change. Such a change involves a reconsideration of learning, context and generalisation.

Rethinking learning

The research findings were consistent with a view of learning as an interaction with its context in order to better understand and work within it. Although the research participants were reflecting on their own, and their students', learning experiences, the design of the research meant that such reflection was grounded in an experienced scenario, which they had reconstructed. Thus, the reflection was focused on how they had experienced, changed and been changed by the context of the scenario they had chosen to analyse.

This might be termed situated reflection insofar as it is consistent with descriptions and explanations of situated learning. Situated reflection takes on:

The proportions of a general theoretical perspective [and provides] the basis of claims about the relational character of knowledge and learning, about the negotiated character of meaning, and about the concerned (engaged dilemma-directed) nature of learning activity for the people involved. (Lave & Wenger, 1991, p. 33)

This is whole person reflection in which 'agent, activity, and the world mutually constitute each other' (p. 33). This concept has been the subject of a number of research studies (such as those of Billet, 1996, 1998, 1999, 2001, 2005; Boud, 1999, 2006; and Stevenson, 2003, 2005). Such reflection may occur on an individual or collective basis; it may be internal or collaborative. My research outcomes included the development of a metaphoric framework to guide such situated reflection. This framework builds on Schön's metaphor of a swamp (1987, p. 3) to describe the lowland of everyday professional practice and uses virtual spaces, each with its own set of physical, social, and psychological contexts, in which the reflection might occur to ensure that the resultant learning and application is both iterative, developing and ongoing.

Rethinking the transfer of learning

Transfer, as a construct of educational psychology 'refers to the appearance of a person carrying the product of learning from one task, problem, situation, or institution to another' (Beach, 1999, p. 101). The issue of transferability is, obviously, an important one with respect to workplace performance. Most of our formal education systems are basically vocational in intent, and based on the assumption that competence is transferable across differing work and education contexts.

If competence is considered to be a relationship between capacity and performance in a particular context, then the transfer of such competence to new or different contexts would appear to be problematic. If, however, the relationship is seen to be three dimensional with the ability to understand, take into account and work within a particular context being given equal importance as personal ability and task completion, then the resultant competence should be both adaptable and capable of transfer to new and different situations.

The research participants reflected, as might have been predicted, a range of understandings about the transfer of competence. However, contrary to expectations, the majority appeared to recognise the interactive nature of transfer and the context and the role of transfer in learning.

Transfer as consequential transitions

My understanding of transfer has been greatly influenced and transformed by the work of Beach (1999, 2003) in redefining transfer as a series of transitions the consequences of which are learning resulting in changes of practice. His work has resolved the basic contradictions in the earlier work of cognitive researchers who described transfer as if it is the learning and not the learner who is crossing across different contexts. It is, therefore, largely the understandings which come from a study of the work of consequential transitions and of polycontextual boundary crossing which provide a theoretical basis in terms of how transfer is understood by the participants.

By moving away from the metaphor of transfer to the metaphor of consequential transitions (1999, pp. 110-111), Beach also disposes of two unnecessary distinctions which are associated with the transfer metaphor: that is, distinguishing transfer at the task level from transfer at the level of larger forms of social organisation; and separating intentional from unintentional transfer (p. 110). He did this by first redefining the process of generalisation, which he defined as 'the continuity and transformation of knowledge, skill and identity across various forms of social organization' (p. 112). His definition recognises that 'learners and social organisations exist in a recursive and mutually constitutional relation to one another across time' (p. 111).

This definition postulates that the generalisation process is not an abstraction, as it is obtained without decontextualisation (Van Oers, 1998, p. 136). Such generalisation requires systems of artefacts to:

weave together changing individuals and social organizations. ... [this] can involve transformation, the construction of new knowledge, identities, ways of knowing, and new positionings of oneself in the world. They are consequential for the individual and are developmental in nature, located in the changing relations between individuals and social activities.(Beach, 1999, p. 113)

The evidence: participant stories

The responses made by the research participants gave strong support to the concept of significant transitions and on generalisation through embedding contexts. They provided a basis for the argument that the metaphor of transfer needs to be replaced by that of significant transitions (Beach, 1999, p. 12). That is, when individuals cross contextual boundaries, there are significant experiences which need to be reflected upon, in both an anticipatory and a retrospective sense, in order to understand, and ascribe meaning to, the new situation. This process of meaning-making constructs our identities, both as a learner and a worker. It is a two-way process – when an individual moves in to a new context, both the individual and the context will significantly change. Individuals need to recognise and be proactive with their agency in this process, in order to empower themselves as active members of their new community of practice. Their learning, as a response of the change process their boundary-crossing has initiated, moves from being peripheral to integral as they seek and gain membership of the workplace community.

Four types of consequential transition are identified by Beach, that is:

... lateral, collateral, encompassing and mediational. Lateral and collateral transitions involve persons moving between pre-existing social activities. Encompassing and mediational transitions have people moving within the boundaries of a single activity or into the creation of a new activity.(Beach, 1999, p. 114)

The stage 2 participants provided, through their “stories”, examples of the four types of consequential transitions identified by Beach: lateral, collateral, encompassing and mediational. ‘Lateral transitions occur when an individual moves between two historically related activities in a single direction’ (1999, pp., p. 114). This type of unidirectional movement was the most common type of transition described by the participants. For example, one participant described his experience in mentoring a younger friend over a period of twenty-one years when he wrote:

Marc started teaching in 1974 and spent the next 21 years as a classroom teacher of maths and chemistry. His teaching career as a subject co-ordinator, level co-ordinator, curriculum co-ordinator, house master and designer of school timetables mirrored mine to a large extent. He was a brilliant teacher and tutor but not formally promoted in the Government system. With a Ph.D in Chemistry and Honours in Mathematics, he was exceptionally qualified in comparison with other teachers in government secondary schools.(s2p061)

Not all consequential transitions are made willingly. In the following scenario, the transition was not initiated by the storyteller when she wrote:

I moved ... from a production role in a national, public sector communications organisation (where the subject matter and program outcomes were directly focussed on the education sector) to freelance project work for business and government clients in the vocational and tertiary education sector.

Initially, the skills I had developed at the first communications organisation seemed very specific to that industry, the particular technology (radio & television) and the unique cultural role of the corporation. However, in time, I came to see that I had some important generic skills and understandings, as well as quite specific skills in project planning, sequential organisation of ideas and information, interviewing, writing and editing etc, that were highly transferable to new work contexts. As a freelance worker, each context and set of project requirements were different, so various combinations of prior skills and knowledge were applied. (s2p037)

‘Collateral transitions involve individuals’ relatively simultaneous participation in two or more historically related activities’ (Beach, 1999, p. 115). For example, one participant traced a significant series of consequential transitions which moved from school student to self-employed architect when she wrote:

This transfer and movement is over a long time, being 1968 – 1984, mostly as a single mother. During this time I moved from being an interior design student (art student) to working in a restaurant (waiting, cooking & finances), designing crafts for weekly magazines, church organist, engineering draftsman, architectural draftsman, building

supervisor, architectural student and, finally, qualified architect.

All of the experiences and scenarios provided greater reference points upon which to refer to the designing of spatial configurations and the understanding of the building process. The skills were theoretical, physical (= drafting), emotional and social. Architecture encompasses all of life and so no learning experience is wasted.(s2p011)

Many of the stages outlined above were collateral transitions: being an interior design student; working in a restaurant; and designing crafts for weekly magazines all occurred concomitantly. These changes also show that collateral transitions often run counter to societal notions of development. For example, the participant repeatedly gained qualifications in one sphere, for example in building and construction and then returned to study architecture whilst working as a professional building supervisor.

Examples of collateral transitions from participants were only described by women participants, and were often concerned with enrichment and challenge, rather than being directly concerned with their working trajectories. In a second example of a collateral transition, one of the participants described her movement from working as a potter to writing TAFE curriculum when she wrote:

I was a potter. My core business was throwing pots on the wheel, decorating them, firing them and selling them. I designed and developed my own range of pottery researching appropriate glazes and firing techniques. Additionally however I took on projects that interested me. I built a pottery studio with a friend and received a grant to assist. I wrote articles on pottery for craft magazines. I was on a project working group that established a large arts centre in Melbourne. I assisted in large events organised for that arts centre and I ran workshops for the community. I also taught pottery to Aborigines rehabilitating from drug and alcohol abuse, unemployed people, children and a talented autistic person. I worked collaboratively with other artists. I communicated effectively with a large range of people.

Then one day I turned around and decided that I needed to earn a lot more money and decided to look for a well paid job. I successfully landed a temporary job writing curriculum for TAFE. I was appointed to a

permanent position as an accreditation officer with the State Training Authority soon after. Someone explained the idea of transferable skills to me and that is the basis on which I successfully made such a dramatic change.(s2p022)

It is interesting that this participant gave the details of these collateral transitions only as background to the move she understood as transfer - that is, the lateral transition from working as a potter to writing TAFE curriculum. Yet this significant move was underpinned by her experience in collateral transitions and the crossing of contextual boundaries on a day-to-day basis.

Encompassing transitions were the third type of significant transition which Beach described. 'Encompassing transitions occur within the boundaries of a social activity that is itself changing. ... Like lateral transitions, encompassing transitions involve a clear notion of progress, although it is associated with the direction taken by the changing activity rather than the direction of individual moving between activities' (Beach, 1999, p. 117). One example of an encompassing transition is the following account of a change in role within the same workplace. The participant relating this wrote:

I'm reflecting on the situation of the training administrator who joined me in the training section of the industry association. Prior to her taking on this new role she had been working in an administrative/secretarial role in another section of the industry association and moved into the training function as a completely new role. She had to learn about the training activities, provide advice and assistance to members inquiring about courses, undertake all the electronic setting up and formatting of information as well as being able to enrol participants in courses, provide confirmation of their enrolment, ensure they were appropriately invoiced, etc.

In this situation, the work functions are changed which means that new skills and knowledge will, in all likelihood, be needed. In addition, although the work context may superficially remain the same, it has changed insofar as the person's relationship with that context has changed and, therefore, how he or she experiences that context, has also changed.(s2p012)

The final group of transitions identified by Beach were those of mediational transitions 'Mediational transitions occur within educational activities that project or simulate involvement in

an activity yet to be fully experienced' (Beach, 1999, p. 118). Most of the stories told about expected situations of transfer might be described as mediated transitions. For example, a new retiree wrote:

As I have recently retired, I have proactively gone out to acquire new skills/knowledge, namely in the arts/history fields so that I might broaden my knowledge/appreciation base for the world I live in. In addition, I have recognised the need to develop skills in some areas to prepare me for a purposeful retirement e.g. learning to bowl (even though I feel that I am not quite ready).(s2p015)

Our learning from these consequential transitions, arises from the social, cognitive and emotional tensions (Illeris, 2002, p. 18) which are a necessary consequence of our boundary crossing and subsequent activities. This learning is situated in three ways, that is, practically; in the culture of the occupation and/or the workplace; and in the social world (adapted from Evans & Rainbird, 2002, pp. 17-18).

The stage 1 participants identified these three aspects of transfer within their responses. As one of them said:

There's the work we do, the people we work with and the culture of the place – how we do, and feel about, things around here. They are all involved – it's not that one is more important than the others.(s1p13)

Similarly, the stage 2 participants recognised the 'three integrated dimensions of the learning process' (Illeris, 2002, p. 20) which was generated by intercontextual boundary crossing. Van Oers' process of continuous progressive recontextualising (1998, p. 141) was recognised by a number of respondents in terms of the exploration of and comparison of contexts to find the degree of "fit". This enables the embedding of the old context in the new and is not, in Van Oers' view, an infrequent activity which only occurs when crossing contextual boundaries but one which is occurring on a continuous basis as we interact with our environment and our learning is mediated by the artefacts we use to manage social change.

The third issue which the research participants recognised was the contextual boundary crossing which is part of our everyday activities. Supporting the transfer process, or the consequential transitions across work contexts, requires more than simply making sure that the boundary crossers have the necessary technical skill to do their assigned jobs. It requires support in identifying variations and commonalities in

the activities involved and the context in which such activities are situated. In addition, it requires proactively enabling workplace learners to assume new roles and responsibilities as they learn through interaction with the workplace context.

Just over half of the participants believed that patterning (copying the behaviour of others) would result in only superficial learning, unless it was accompanied by a conscious search for difference. Thus as one participant wrote:

I think that patterned behaviour is important, but mainly insofar as it throws into sharp relief the differences between the new and the old situations and, as you suggest above, provides a base to be seen to be doing the right thing while you are trying to find out what it should be, e.g. the strategy of checking out what experts in the field do.(s2p018)

Thus enactment becomes the process of trial and error, based on one's initial assessment of variations and commonalities, until it is possible to embed the activities and the contexts within each other. As a result of this process, it is the differences which are significant. Thus boundary crossers need to recognise that patterns 'are dynamic and they, [the learners], have the power to change them' (s2p041).

On the other hand, unless learners 'use reflection to significantly unpack the way that they pattern the response ... they are not able to interact with changing environments rapidly' (sp2041). The recognition of a superficial pattern 'can lead to complacency and the failure to appreciate the newness of a situation' (s2p071). Other negative aspects on a reliance on patterning included 'being influenced by the behaviour of the workplace group and thus failing to learn deeply and thus be able to adapt and innovate' (s2p038); and substituting patterning for learning and, thus, failing to come to terms with difference, diversity, ambiguity and uncertainty. This means that they are 'not able to deal with contingency; an everyday occurrence in the workplace' (s2p052).

CONCLUSION

Rethinking transfer is just the beginning of a change in the way we view learning as thoughtful interaction. The research showed that the perceptions of practitioners, based on their practice and experience, have already begun to embrace these ideas in response to the changing social worlds they inhabit.

This paper has only just touched the surface of the concepts which are commensurate with a

change in thinking about transfer and its implications for teaching and learning practice. Rethinking the concept of generalisation is also important, as is the understanding of the demands and processes of polycontextuality. It is imperative that such ideas are researched, disseminated and adopted into everyday educational practice if we are to meet the challenges of learning and working within a knowledge society in which lifelong learning is a necessary part of our identity as individuals.

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PREPARING PROFESSIONALS FOR THE DEMANDS OF INTELLECTUAL QUALITY AND CONNECTEDNESS IN ENGINEERING EDUCATION

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ABSTRACT

“In future, professionals may lack the option to choose not to engage in learning activities over the lifespan” (Gooler, 1990). The implications are that one’s professional occupational preparation can become obsolete in a matter of years. Professionals’ capabilities require meeting emerging demands of productive pedagogies in intellectual quality and connectedness.

KEYWORDS

Professionals – Intellectual Quality –
Connectedness - Policies

INTRODUCTION

The world of education is facing rapid changes today and will undoubtedly face even greater changes in the future. The shift away from the perception of formal institutions as the sole providers of education and the increasing recognition of the learning opportunities which exist outside the walls of institutions have put an immense pressure on the institutions to prepare their professionals for such challenges. Adding to that, the decreasing interest of potential learners in engineering studies has meant that the providers of engineering education are facing even greater challenges.

Higher education today is facing an increasing demand for new knowledge and skills. In the meantime, the body of information that needs to be learned is growing rapidly and often becomes obsolete just as quickly.

The famous mathematician and scientist Rene Descartes (Moncur, 2007) observed: “Each problem that I solved became a rule which served afterwards to solve other problems.” He further stated: “Except our own thoughts, there is nothing absolutely in our power.”

The authors concur with the words of Descartes. It is vital to solve the problems of the new era and train professionals through lifelong learning strategies. The methods developed as a consequence of such training could be used as rules to solve future problems. Preparing the professional for the new era of improved intellectual quality and connectedness in learning will be the only means to overcome existing and future problems.

Problems facing the professionals in academia

Under-preparedness in professionals

The nature of under-preparedness is usually where the knowledge and competencies of the learner entering an educational program compare negatively with the assumed knowledge and competencies on which that program is based (Braun, 2003b). Under-preparedness carries with it the implication of lack of sophistication by the educational professionals in delivering course outcomes. The professionals have to be prepared to devote efforts to improve students’ intellectual quality and connectedness in the delivered courses – for example, by introducing in courses the requirement that students solve problems which are complex or open-ended.

Taylor (1995) reinforces the importance of the education of professionals and stresses that “What really matters is the quality of the instructional message, rather than any inherent characteristics of the instructional medium used.” He cites instructional design as “the key process for improving the quality of teaching and learning”. This consists of the use of cognitive task analysis (Ryder & Redding, 1993), novex analysis (Taylor, 1994), concept mapping (Novak, 1990) and knowledge engineering (Taylor & Thomas, 1994) with a view to designing a sequence of well-structured learning experiences.

The quality of the learning experience provided by academic professionals will be determined by the training in educational methodologies they receive as well as by their willingness to work as members of multi-disciplinary teams, rather than perpetuating the ‘silo’ mentality which currently exists in many tertiary institutions. In short, academic professionals need formal educational training if they are to inspire students to reach their full potential and to embrace the thirst for knowledge which leads to lifelong learning.

Issues related to cognitive functioning

Three levels of cognitive functioning are recognized (Strohm, 1983). The first includes general thinking and reasoning abilities such as perceiving, calculating, problem solving and the ability to conceptualise and function at an abstract level. The second is meta-cognitive functioning, which has to do with thinking about one's thinking, knowledge about cognitive strategies and tasks, knowledge about when and how to apply them and the ability to recognise the "success or failure of any of these processes" (Strohm, 1983; see also Amos & Fisher, 1998). The third level of cognitive functioning – epistemic cognition – has to do with understanding how to approach problems and how to monitor the epistemic nature of a problem and the truth value of alternative solutions (Strohm, 1983).

All programs dealing with preparing professionals for lifelong learning pay attention to what is called "academic proficiency" (Alfred, Dison & Hagemear, 1999). This emphasises the role of the academic professionals who must be able to function effectively in a tertiary learning and higher education environment. Such professionals require the means to improve their learning and study skills, their instructional skills and their questioning skills as well as appropriate motivation and approaches to lifelong learning. Life skills such as time management, basic financial and social skills and the ability to adapt to an unfamiliar social environment should also be encompassed.

Learning and teaching environment

Increasingly it is being recognised that the most effective way to teach professionals skills is to integrate the teaching in the context of a relevant discipline nationally and internationally (Alfred, Dison & Hagemear, 1999; Strohm, 1983). There is little doubt about this. It is now common at Central Queensland University (CQU) to use strategies implementing project-based learning when the course allows or problem-based learning when the course is context-based. Such strategies enhance the intellectual quality and connectedness among the learners and prepare them for lifelong learning when they work with real life problems.

Teaching styles

The educational approach is 'learner centred' as opposed to 'teacher centred', as in traditional formats, or 'student centred', as in more modern activity-based formats (Ramsden, 1992). This requires the professional to have improved intellectual quality and connectedness capabilities for an effective engagement of the

students in the learning activities that are set. An example of the emphasis on lifelong learning is the CQU engineering degree, where teaching practice in the past consisted of lectures and reference to textbooks and has now moved to preparation for problem solving in the complex world in which we live. Academic professionals should therefore be trained to undertake action research to ensure that courses are increasingly more sound both theoretically and practically.

Higher education policies

Higher education worldwide, especially engineering, has changed to outcomes-based education while embracing new technology. It is imperative that we, as academics, keep up with these changes and understand and relate to the experiences and backgrounds of new undergraduates.

Shortage of academic staff

One major problem presently affecting the quality of engineering education, for example in Queensland, is the shortage of senior lecturers with PhD qualifications. This has the snowballing effect of overloading the existing staff and making it difficult for them to attend professional development courses which would enhance their knowledge of new technologies in their relevant fields.

Extensive research (Peel & Quayle, 2001) has shown that the professionals, in some circumstances, are not able to cope with the application of continuously improving software in their fields. The shortage of academic staff, and the consequent lack of time for maintaining currency of skills, have a negative effect on their ability to improve the quality of education of their students. Even if the academics are able to cope, there are not enough funds or grants to support such technology upgrading in the infrastructure of the existing systems.

Lack of university/industry partnership policies

Owing to the rapidly changing requirements of employers, and especially industry, regarding the necessary qualifications of graduates, academic professionals are not prepared for proper practical industrial exposure. This is because there are no policies to oblige industry to have partnerships with universities. In Germany, the successful collaboration of industry with universities and research institutions has made the engineering industry the highest exporter of machines and systems designed and manufactured in Germany (Zahedi, 1995).

Lack of interdisciplinary training for academic professionals

Providing more interdisciplinary training, especially for academic professionals, would have the flow-on effect of enabling them to prepare their students for a more complicated and demanding work environment. The implementation of such training necessitates increased cooperation from various departments within universities and from industry.

The present ills of research education

Research candidates must broaden their views to other areas and be educated professionally to be innovative (Braun, 2003a). It is suggested that research programs be enriched through employing a set of 'core' and 'elective' attributes. It is further suggested that the research program be an 'outcomes-driven', managed learning environment, designed to train the highest level of researchers through the progressive attainment of core and domain abilities.

It is believed that the research will:

- Improve completion rates;
- Improve the quality of research;
- Support experienced supervisors;
- Develop inexperienced supervisors;
- Build cohorts of students;
- Help to recruit good international students; and
- Support the engineering faculty goals in the research area.

Researchers need to develop lifelong learning policies and practices to improve the intellectual quality and connectedness of lecturers and academic professional in engineering education.

It is the intellectual demands embedded in classroom tasks, not the mere occurrence of a particular teaching strategy or technique, that influence the degree of student engagement. The intellectual quality and connectedness of the teaching and learning of academic professionals should be standardised and supported by policies and practices. This will facilitate the development of lifelong learning policies and practices. The relationship between what is recognised and what is rewarded has to be fairly clear. Examining and revising the relevant policies and practices of the developed strategies are necessary to improve the quality of teaching and learning of professionals from the intellectual quality and connectedness point of view.

Following wider adoption and implementation of intellectual quality and connectedness standards by universities, agreed benchmarking data would be available for sharing across the sector. Preparing academic professionals and training them for new highly demanding programs implementing intellectual quality and connectedness have been tried in many institutions. A new wave of engineering programs using project-based learning and/or problem-based learning has been emerging around the globe.

In recent years, the engineering profession and the bodies responsible for accrediting engineering programs have called for a change from 'chalk and talk' strategies in learning (Mills & Treagust, 2003). CQU introduced a project-based engineering degree in 1998. As reported by Wolfs, Howard, Vann and Edwards (1997), CQU offers engineering degrees in the specialisation areas of civil, electrical, mechanical and computer systems engineering. All of these programs have adopted a project-based model, with 50% of the students' workload in each semester allocated to a project-based unit. Each semester consists of two six-unit courses, used to develop the theoretical knowledge bases, and a 12-unit project-based course. The projects gradually increase in length and difficulty throughout the program. An added difference in the CQU program is that it is a cooperative format, where students undertake two semesters of a total of nine semesters in a full-time industrial work placement. In contrast (Mills & Treagust, 2003) to Aalborg and Monash Universities, CQU has introduced project-based courses as 50% of first year as well. These first year courses focus on developing skills in teamwork, communication, computing, problem solving and others, as well as introducing students to engineering issues such as ethics and environmental and social factors. Initial indications are that retention rates have improved along with student grades. Program assessments have again been focused on student evaluations.

The aspects that students have perceived to be negative about the project-based learning curriculum are the high time demands of projects and problems with members of groups who do not pull their weight. The recommendations for continuing progress towards the intended project-based curriculum primarily revolve around continued training for both students and staff in the skills needed to make project-based or problem-based learning effective, such as teamwork and problem solving. Another recommendation is for continuing education for staff in implementation and assessment

methodologies that are more attuned to problem- and project-based learning philosophies.

Initiatives for preparing professionals for enhancing intellectual quality and connectedness of the learning society

In 2007, the Faculty of Science, Engineering and Health at CQU established, within the School of Engineering, a group of educators who are interested in taking engineering education further for lifelong learning (the FEED Group). It is aimed to have group meeting discussions to swap knowledge of developments in engineering education fields such as enhancing student-centred learning through project-based learning, curriculum-implemented technology and problem-based learning as well as exploring new strategies for assessments. It is considered to be one of many ways to prepare professionals for improved intellectual quality and connectedness with the new sophisticated world. This could be achieved when group discussion is encouraged and collaborative learning and group work of various kinds are used extensively. The regular use of qualitative and reflective questions will also promote the development of meta-cognitive skills and deeper understanding.

In the past, international exchange programs have been organised primarily for undergraduate students. Now the time has come to facilitate similar exchanges for the professionals, especially the academic staff. This would improve intellectual quality and connectedness in the new programs by ensuring that academics gain an understanding of new technologies from around the world. Initiatives that will attract international academic staff through exchange programs will contribute to the overall effort of addressing the preparedness of professionals. Education is the foundation on which technology is borne. Funding of education must be a priority, not just for government alone but also for industries and wealthy individuals!

The project of finding and collecting data about the best strategies used for preparing the professional for the demands of improved intellectual quality and connectedness will be collaborative among the higher education institutes around the globe. Now that CQU is taking up the challenge of research into engineering education, it would be good to hear news from others who are doing the same. It is the authors' belief that maintaining and improving the quality of engineering education could make a positive contribution nonetheless (Heitmann, 1996).

CONCLUSION

To facilitate lifelong learning, educators have to be prepared to be part of the learning process with their students. Taylor (1995) recommends that "to effect qualitative change in the teaching-learning process, it is necessary to generate qualitatively different teaching-learning environments, pedagogical practices and organisational infrastructures" and advances in instructional science need to be shared. Professionals must be trained how to teach students in environments which know no boundaries. The problems facing academic professionals are enormous and this paper highlights only a relative few. Preparing professionals for lifelong learning and the demands of intellectual quality and connectedness needs more researching and the data gathered around the globe require organising and to be centralised for easy access by those professionals. The arguments advanced here should act as a wake-up call not only to professionals but also to the policy makers in higher education. This paper now opens the door to others to share their ideas and contribute to a lively discussion.

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GETTING ACCESS TO COLLEAGUES IN LEARNING – THE NOTION OF INFORMAL LEARNING

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ABSTRACT

This paper examines newcomers' transformation from educational knowledge to professional knowing, with focus on informal learning and established colleagues as knowledge sources. Informal learning becomes a question of getting access to colleagues, and is believed to be superior to formal learning. Established colleagues represent a vital knowledge source.

KEYWORDS

Lifelong learning – Workplace learning –
Informal learning - Newcomers

INTRODUCTION

Lifelong learning is the new educational as well as organizational reality. It is an answer to our dynamic economy, where knowledge is viewed as a key strategic and competitive resource (Ipe, 2003). However, lifelong learning was an emergent theme and officially launched at the UNESCO Conference in Montreal in 1960. After a relatively quiet period, it became an important topic again, at a European level the concept was further developed in a Memorandum. The Memorandum on lifelong learning (Commission of European Communities, 2000) offers a structured framework, putting lifelong learning into practice at a national and international level using six key themes: new basic skills for all, more investment in human resources, innovation in teaching and learning, valuing learning, rethinking guidance and counselling, and bringing learning "closer to home". However, these key themes are not easily translated into everyday practice (Lans, Wesselink, Biermans & Mulder, 2004), neither is the European Commission White Paper from 1996 stating the importance of lifelong learning in accordance to "Teaching and Learning; Towards the Learning Society. The challenge is worldwide to identify what makes lifelong learning a reality in everyday life and to question whether current formal education and formal training activities provide a sufficient basis for lifelong learning. In other words: we need to focus on adult learning stretching across the lifespan.

Adult learning is an interdisciplinary field where the point of departure is an expanded learning concept, which includes learning through education, work and society. A changing society requires continuous challenges to learning, and the factors preventing or promoting quality in adult learning. While the concept of lifelong learning includes all learning arenas, the concept

of workplace learning focuses on the workplace, including both educational knowledge and workplace knowledge. The purpose of this paper is therefore to use the concept of workplace learning, when focusing on newly educated and their learning processes at work. In their transformation from educational knowledge to professional knowledge, the main focus of attention is on the importance of informal learning as a question of getting access to colleagues as sources of knowledge. Thus, my approach to workplace learning is in accordance to a social and cultural approach to learning, where learning is situated in social contexts and where culture and social relations with colleagues is integrated in the practice in which newcomers develop knowledge on how to perform and solve work tasks.

Learning arenas at work

Workplace learning often links to formal education, and the difference between school and work as the learning environment (Boud, 1999; Fisher, 2000). Thus, the novelty in workplace learning has its origin within the transfer from school to workplace as an emergent paradigm. Recent interest is taken in the coupling between learning and knowledge development connected directly to life, where meaning is attached to informal and everyday learning. Thus, focus is on the workplace itself as the learning environment, where learning is part of everyday practice at work. A number of researchers claim learning to be integrated and facilitated within the context of the workplace, and through social interaction between employees (Rogoff & Lave, 1999). The requirement is therefore for a flexible form of learning which enables employees to engage in a regular process of up-dating and continuing professional development, which increasingly emphasizes and facilitates forms of learning and types of knowledge in which learners are engaged (Reeve & Gallacher, 1999). Studies of workplace learning show informal learning to be the most common way of learning for employees (Collin, 2002), and Garrick (1998) and Boud (1999) suggest that informal social

interactions with colleagues are the predominant way of learning. Thus, informal learning should be legitimised as an important part of learning in becoming professionally competent (Solomon, Boud, Leontios & Staron, 2001; Van Woerkom, Nijhof & Nieuwenhuis, 2002)). It is even questioned whether formal education is necessary for working in practice, as how to use knowledge as a question of knowing cannot be learned outside the context of practice (Brown, Collins & Duguid, 1989). Knowing and competence is not something individuals or organizations have, but must be regarded as something they do (Mulcahy, 2000). Therefore, Garrick (1998) and Boud (1999) claim the impact of formal training on practice (not in practice) to be quite marginal.

Workplace learning arises and centres upon what Beckett and Hager (2002) refer to as two different paradigms of learning (acquisition and participation), which encompasses different epistemological assumptions and beliefs about knowledge and knowing. Hager (2004) notes that the acquisition paradigm of learning focuses on individuals as learners, and mainly on the rational cognitive aspects of work performance. Work performance tends to be conceived as thinking or reflection, and the importance of social, organizational and cultural factors in workplace learning and performance is often downplayed. Beckett and Hager (2002) term this paradigm the “standard paradigm of learning” because of its superiority. Workplace learning theorists who are concerned with informal learning processes are, conversely, contributing towards what Hager (2004) terms an emerging paradigm of learning (learning as participation). The paradigm tends to conceptualize knowledge differently, seeing knowledge as fluid; produced and continually reconstructed through relationships and interactions between individuals in social practices, as a question of knowing.

From a participation perspective, the appropriate unit of analysis is the social relations between people rather than isolated individuals. Focus on learning as social participation can be related to social theories on workplace learning (Lave & Wenger, 1991; Wenger, 1998). Within this social and cultural approach to learning, the participation paradigm, for instance newcomers do not learn through facilitated and controlled teaching, but as a result of participation and being integrated in communities of practice (Wenger, McDermott & Snyder, 2002). Lave and Wenger (1991) reject traditional didactic views of teaching and learning, and argue that learning is intrinsic to human activity. Hence, learning is situated and occurs through processes of participation in

social practices. It is within the participation paradigm this paper focuses on newcomers learning as a question of getting access to colleagues and discusses whether a focus on informal learning contributes to new understanding of newcomers learning processes.

The notion of informal learning

Informal learning concerns how people learn from dealing with daily experiences and dilemmas at work. Garrick (1998) explains that *“there are indeed rich sources of learning in day-to-day practice situations and that what is learned from experience is dynamic and open to multiple configurations”* (p.1). Informal learning focuses on learning occurring outside formal educational settings. Informal learning can therefore be both intentional as it can be incidental, and it can be practical and judgemental. All of these characteristics of informal learning can occur through social relations with colleagues at work (Eraut, 2000). These four principles of informal learning are considered central features of work as a practice, the workplace as the working environment, crucial to individuals’ knowledge development. Social participation at work tends to be considered not only crucial to understanding and facilitating learning, but as a more significant, effective and thus superior form of learning (Colley, Hodgkinson & Malcolm, 2002). Informal learning highlights the importance of everyday practice at work where learning is integrated in ongoing continuing processes of learning and knowing (Filstad & Blaaka, 2007). Several studies show that employees recognize learning from everyday practice at work as vital. When studying workplace learning in Nordic countries, Professor Henrik Holt Larsen states that learning at work, as informal learning, is more effective. Further, an extensive number of studies show that individuals are able to apply knowledge that is learned in the work context it is to be used (Larsen & Skovbo, 2002; Nilsen & Kvale, 2003). Drawing on a review of several studies of informal learning, Marsick and Watkins (2001) characterize informal learning as follows:

- It is integrated with daily routines
- It is triggered by an internal or external jolt
- It is not highly conscious
- It is haphazard and influenced by chance
- It is an inductive process of reflection and action
- It is linked to the learning of others

Garrick (1998) argues that Marsick and Watkins (2001) perspective on informal learning can be recognized and thus credited in formal courses, made effective and deliberately encouraged.

However, informal learning is a complex phenomenon, and most research focus around three main perspectives; informal learning as a valid form of knowledge acquisition; how people learn from experience; and how learning from experience can be facilitated and assessed.

Method

The past year, several in-depth interviews with newcomers in different organizations has been conducted. The sample consisted of newly graduated Master of Science students, with a total of 30 interviews. The findings resulted in a number of propositions leading to a survey consisting of 54 items. 39 items were statements respondents rated on a 5-point likert scale. The remaining 15 items were various control variables I considered to be significant. In this article I present and discuss the findings related to the following propositions: 1. Newcomers rely more on informal learning than formalized learning, 2. Newcomers are proactive in building informal relations and attaining informal groups at work and 3. Newcomers have access to established colleagues in learning.

The survey was distributed via e-mail to students graduating from bachelor and master studies in Norway in 2005 and 2006. It was sent to 1960 respondents, 952 at bachelor level and 1008 at master level. As our e-mail list consisted of previous school addresses, not all respondents received the survey. Unfortunately, it was impossible to calculate how many. Some reported not having a job yet, which ruled them out of our sample criteria. We received 244 responses from the bachelor students, and 295 responses from the master students, all together 539 responses (33,4% response rate). There were 54,5 % male and 45,5 % female who responded. 90% of the respondents were between 22 and 30 years old.

The respondents were mainly employed in positions at consultant level in different organizations. We conducted an exploratory factor analysis with varimax rotation, and found support for 6 factors, using 22 of the 39 items. However, as this was a pilot survey, further development of the different factors are necessary in the future. The factors were: formal learning, informal learning, informal source, available knowledge, expectations and identification. The usefulness of our control variables were heavily influenced by the homogeneity in our sample. However, years employed in company, employed in position, and hours per week had a significant effect on some of the variables. We then correlated the factors, and found several significant relationships.

Further studies with a more diverse sample are necessary in order to establish the effect.

RESULTS/DISCUSSIONS

Proposition 1: Newcomers rely more on informal learning than formal learning

The respondents seem to recognize that their previous knowledge is limited, and that it is necessary to increase it in order to perform well and succeed. As a consequence, 92% find that they need to learn from colleagues, mostly as positive examples but also as negative examples on not to perform. When differentiating between the levels of knowledge established colleagues represent, 92% claim to obtain knowledge from colleagues in higher positions, 80% from colleagues at an equal level and 60% claim to learn from colleagues on a lower level. This is in line with their claim of using several colleagues in learning their new job, as they see that different colleagues represent different levels of knowledge. All respondents report that they find informal contact with colleagues important for their learning, and that they form informal bonds with colleagues at all levels in the organization. These informal learning arenas provide them with an opportunity to discuss work, observe and practice together with colleagues. However, they also find formal learning arenas to have equal importance to their learning. It seems to be in the combination of informal and formal learning arenas they develop own knowledge. The significance between the factors informal learning and formal learning (.28, $p < .01$) supports that a combination of the two is fruitful for newcomers.

Thus, it seems like the respondents rely on both formal and informal learning in learning their new job, and that they do not consider one to be superior of the other. However, the formal training most newcomers are presented with is related to the use of technical tools, actual work tasks and information about the company. They also consider going out on assignment with established colleagues as a part of their formal learning. Getting access to colleagues in learning is highly valued. They are in an early stage of their professional carrier, and are not that conscious of informal learning arenas they take part in. Hence, they do not recognize social relation and practicing with colleagues as learning in the same way as formal courses and training.

Their informal learning is a result of everyday practice, linked to the learning of others, and not necessarily conscious and mostly integrated in daily routines (Eraut, 2000; Garrick, 1998; Marsick & Watkins, 2001). Therefore, I find that

the respondents are unaware of how important informal learning is in their learning. And accordingly, most organizations do not focus on learning in everyday practice when formalizing training for newcomers (Jakobsen, 2003). Thus, it is the responsibility of the newcomers to learning from several colleagues and using them as positive examples on how to perform. For some newcomers, it is easier to get access because of a culture within the organizations that provides them with more opportunities and where learning from colleagues and sharing knowledge is more common and appreciated. Open landscapes are also highly appreciated among newcomers because colleagues because it is easier to access colleagues but also they are able to observe them in action. Working in projects and teams are another appreciated way of learning from colleagues at work reported by newcomers. However, mostly the lack of facilitating informal learning, and recognizing how crucial it is for learning is recognized (Colley et al., 2002), as it is not focused upon as important learning arenas, but more as a “bonus” of already ongoing work processes. To differ between informal and formal learning at work can provide some confusion as well. Organizations do arrange courses, but in these empirical studies they only seem to include a short introductory course and training directly related to work tasks. This is far from an educational setting and tends to be more into everyday practice at work. Hence, a clear distinction between formal and informal learning can provide some confusion when newcomers report the characteristic of their learning processes.

Proposition 2: Newcomers are proactive in building informal relations and attaining informal groups in the organization

I found support for a significant, positive relationship between identification and informal source (.15, $p < .01$), which could indicate that the larger degree of identification with colleagues could provide an urge to access these informal sources. The respondents recognize identifying with colleagues they want to get access to. They also tend to identify more with colleagues in a higher position than with colleagues in lower positions. The respondents report that they find it to be their responsibility to be proactive towards colleagues, and thus being responsible for own learning. Thus, I find support for proposition 2, as it seems like the newcomers are proactive in building informal relations and attaining informal groups at work. Informal learning is not recognized as superior at work, and as Wenger (1998) would claim, informal learning is not possible to fully facilitate. Informal social

relations and informal social groups are socially constructed among colleagues without obtaining necessary focus on its crucial importance on what kind of knowledge that is being shared and developed and to what extent it is in accordance to what the organizations goals and strategies are. The newcomers claim to build relations with colleagues in which they identify, mostly at a higher or same position. This is confirmed through a social participation approach to learning who claims that newcomers do not learn through facilitated and controlled teaching, but as a result of being integrated in informal social practices (Lave & Wenger, 1991; Wenger, 1998; Wenger et al., 2002). Most organizations are poor in facilitation newcomers learning processes, which makes it up to the newcomer to take charge of own learning (Filstad & Blaaka, 2007). But even though informal learning is not facilitated, several examples and reports from newcomers show that established colleagues take charge themselves and have already a number of informal learning arenas themselves that they appreciated and find useful, so when newcomers are included in these informal relations and groups they are also able to get access to several colleagues in learning.

Proposition 3: Newcomers have access to established colleagues in learning

The significance between informal learning and available knowledge (.38, $p < .01$) indicates the importance of availability to informal learning. 82% of the respondents believe their colleagues to represent the most important knowledge, and as newcomers learn through observing and practicing with colleagues, it is vital that they are available to them. About 90% of the respondents find that preferred colleagues are available when they have a job related problem, but at the same time 64% report that a lack of access to colleagues does not represent a problem to their performance. This can be related to their statement that they are quite independent in performing own tasks and solving own problems. Thus, I find support for Proposition 3. It seems like the newcomers are proactive in relations to colleagues when necessary and that they are quite independent in their work. Newcomers find that established colleagues were very forthcoming and available in theory, but in practice their availability was quite limited due to a busy everyday schedule. As a consequence, newcomers had to rely on own knowledge and finding own solutions, and work independently. That is also in accordance with what is expected of them and what they expect of themselves. This can also be understood in relation to a commonly understanding of learning as individual acquisition of explicit knowledge (Beckett &

Hager, 2002). Outside formal learning arenas many newcomers do not expect to learn and obtain knowledge other than as a positive side-effect of working together. Learning as participation in a work context need to be highlighted as superior, and informal learning must be legitimized as the most important part of becoming professional knowledgeable (Solomon et al., 2001; Van Woerkom et al., 2002). It is in the recognition and consciousness of what informal learning is that we will find the potential of improving the facilitation of newcomers learning process.

CONCLUSION

This paper examines newly educated newcomers entering professional work. It focuses on the necessity of transforming educational knowledge to professional life and obtaining necessary knowing on how to perform and solve work tasks. The focus of attention is on participation and informal learning as a question of getting access to colleagues as important knowledge sources. The result of explorative qualitative study lead to the testing of the following propositions: (1) Newcomers rely more on informal learning than formal learning, (2) Newcomers are proactive in building informal relations and attaining informal groups and (3) Newcomers have access to established colleagues in learning. Newcomers report that formal and informal learning is equally important. Mostly, formalized training is quite limited and appreciated when arranged.

Informal learning is not always recognized as learning, but they claim the importance of being able to practice together with colleagues, observe and communicate with them. For newcomers, informal learning becomes a question of getting access to colleagues, and in my analysis a find that informal learning is at least equally important to formal learning. The problem can be that informal learning is not highlighted as important to knowledge sharing and knowledge development and therefore not recognized as important as formal training and courses. Thus, creating good learning arenas and appreciating colleagues taking initiative to work and learn through informal relations vary within different organizations and is more recognized among small groups and some leaders then as important characteristics of the organizations culture.

Newcomers believe that their colleagues represent the most important knowledge, and informally bounding with colleagues is important to their learning processes. However, getting access to colleagues they prefer represent a challenge, especially since it is more or less up to

the newcomer to build these relationships, and colleagues are quite busy. Newcomers are quite proactive and mostly take charge of own learning. That includes them being active in building informal relations and attaining informal groups at work but also quite independent in performing own tasks. At least that is what they report. I find that their need of knowledge mostly is obtained in relation to others, and that their independence mostly is related to proactivity and thereby ability to learn from and get access to colleagues, but informally. My conclusion is that we need to highlight learning as participation and informal learning as superior at work, as anchored in everyday practice, and thereby obtain necessary awareness also when facilitating newcomers learning processes. It is in the recognition and consciousness of the characteristics of informal learning we find the potential for improving the facilitation of newcomers learning at work.

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LEARNING LATER IN POLICY, LEARNING LATER IN LIFE: REFLECTIONS ON LIFE AS AN OLDER, WORKING CLASS STUDENT IN FORMAL EDUCATION IN SCOTLAND

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ABSTRACT

The policy parameters of lifelong learning, widening participation and ageing provide the context for an analysis, based on data collected from a longitudinal, qualitative study in the West of Scotland, of the realities of later life learning for older, working-class students in formal learning environments.

INTRODUCTION

This paper examines empirical data on later life learning within the context of Scottish lifelong learning, widening participation and ageing strategies. The data emerge from a longitudinal qualitative study of the engagement of older adults (defined as 50+ in age) in further and higher education in the West of Scotland. Our concern has been to track the experiences of older people in these formal learning institutions in a holistic way, linking their learning episodes with their wider life issues. Initially, we discuss some of the pertinent policy considerations which impact on their lives (from both lifelong learning and ageing frameworks) before presenting perspectives from selected participants themselves; finally, we draw links between the policy proclamations and the actual lives of older learners.

Participation rates of over-50s in formal education have traditionally remained very low, prompting the West of Scotland Wider Access Forum to support investigation into ways in which current levels of engagement can be enhanced. The project has a strong emphasis on exploring relevant practice developments for this student group, in nationally prioritised areas such as recruitment, retention and progression. Over a period of two years, each interview of an initial sample of 85 participants explores different areas of the learning experience within the context of their wider lives; these include educational histories, current teaching and learning experiences, benefits and drawbacks associated with participation, and projected learning futures.

POLICY

Lifelong learning policy

In the last five years there has been a raft of reports concerning lifelong learning and the development of a learning society within Scotland. In 2003 the Scottish Executive published its lifelong learning strategy (*Life through learning: learning through life*) in which it emphasises five “people-centred goals” (p. 6) as part of its vision: people participating in

economic, social and civic life; where high quality learning experiences are expected by people and supplied by providers; where knowledge and skills are usefully employed in the workplace; a network of guidance and support is available to assist decision-making; equality of learning opportunity exists regardless of personal circumstances. The report asserts that “lifelong learning policy in Scotland is about personal fulfilment; employability and adaptability; active citizenship and social inclusion” (2003, p. 7). These are laudable sentiments indeed. While recognising the wide remit for lifelong learning, the document soon slips into economic speak – “investment in knowledge and skills brings direct economic returns to individuals and collective economic returns to society” (p. 7). The authors’ definition of lifelong learning builds upon that offered by the national strategy for the same. We argue that for older adults, learning propensity and engagement is significantly more multi-dimensional, encapsulating ‘active’ ageing, as well as ‘second-chance’ opportunities. However, to the credit of this government report, in its acknowledgement of the importance of older workers in the economy, it points to “the need for access to appropriate training opportunities for older people, both for those in employment and for those seeking employment” (p. 16).

A more recent report from the Scottish Funding Council (2006), *Learning for All*, focuses on those groups in Scottish society excluded from education. In the Foreword, it is noted that “In Scotland today, educational participation and achievement is highly skewed, particularly by socio-economic background, geography and gender” (p. 5). It might equally be added “by age”. In line with Scotland’s over-riding concern for social inclusion, this report supports the attempts by the further and higher education sectors to redress educational inequalities. Given that older people have been virtually invisible in formal education, constituting estimated participation rates of 0.68% in Universities and 3.03% in Colleges, *Learning for All* provides a

policy framework related to social injustice (Findsen and McCullough, 2006).

Lifelong learning policy in Scotland is consistent with international trends towards a vocational and youth-centric focus, while widening participation efforts are working towards more proportional engagement with learning among marginalised groups.

Policy on Ageing

It is possible to trace the development of national policies on ageing from the more global policy scene. Many of the imperatives expressed in Scotland's three volumes of *All Our Futures: Planning for a Scotland with an Ageing Population* (2007) can also be detected in the United Nation's Vienna International Plan of Action (1982). The Vienna Plan's Principles for Older People – independence, participation, dignity, care and self-fulfilment – are very much those emphasised in “active” and “successful” ageing strategies, regardless of context. These principles are primarily basic humanitarian concerns applied in this instance to older people who may be more prone to marginalisation in societies (Bernard & Scharf, 2007).

At a global level, the World Health Organisation (WHO) launched its policy on an Active Ageing platform, accentuating a lifecourse perspective in which the ageing experience is coupled with an understandable focus on healthy ageing. Its primary contribution resides in the recognition of the interplay between social, behavioural and situational factors across the lifespan. Drawing on the earlier espoused UN Principles for Older People, this active ageing strategy includes a “rights” rather than a “needs” based approach. This policy is built upon the three key areas for action: health; participation; security. WHO defines “active ageing” as:

“The process of optimising opportunities for health, participation, and security in order to enhance quality of life as people age...The word “active” refers to continuing participation in social, economic, cultural, spiritual and civic affairs, not just the ability to be physically active or to participate in the labour force.” (2002, p. 12)

Scotland's own ageing strategy, *All Our Futures* (2007) has been just recently released. Much of its content mirrors that of the global organisations of the United Nations and WHO in its emphasis on activity theory by way of improved opportunities for sustained societal engagement throughout the lifespan. Older adults' learning, fortunately, is receiving increased attention due in part to the need for

sustained, internationally competitive skills of a ‘greying workforce’ in the global arena.

Amid the 47 priority areas for action, six are explicitly connected with lifelong learning. These six priorities include improving lower skilled workers' employability; fostering a learning culture in which older people can play an increasing role; greater information and guidance for older people, together with more targeted financial support; the inclusion of older people in the Executive's review of learner support for part-time study.

The study reported here conceptually links with the two policy areas enunciated above. It is unapologetically linked to social justice for older adults because the recruitment of older adults used in this research is from officially identified areas of high deprivation in the West of Scotland. Its primary purpose is to depict the realities of older adults' experiences as they connect with Colleges and Universities (Findsen and McCullough, 2006).

Experiences of older adults in further and higher education

We use the stories of three participants as a basis for comparing policy frameworks with students' life and learning experiences. Randomly selected from the overall cohort, two of the students are at Colleges, and one is at a University; many of the issues experienced and discussed by students in the following section are common to the broader data analysis carried out to date.

Mae

Mae had been studying a community-based College-certificated IT training course for 12 months at her first interview in December 2006. In her early-mid 60s, she retired just over three years prior to interview; while not registered disabled, she suffers from rheumatoid arthritis which increasingly limits her activity. This course is her first engagement with formal learning provision since leaving school almost 50 years earlier. She read about the course in her local Housing Association's weekly newsletter six months prior to enrolling but, lacking the confidence to take the course at the time, was spurred to enrol after buying a computer for her grandson.

Her work history is one of retail sales and management. Her current motivation for learning is almost wholly responsive to increased care responsibilities for her young grandson after her daughter's sudden disappearance three years' previously. “I just wanted the bits and pieces

that I could relate to my grandson. It's useful to me and it was useful to him. And that's what I really wanted to do."

She does not pay fees for her course through a means-tested 'Fee Waiver' system in operation for part-time students, and receives a small bi-annual cash 'bonus' for high attendance of the course. She is entitled to lunch and travel expenses although does not claim the latter, instead using national free public transport entitlement for senior citizens.

Mae is enthused about the course in several ways. She praises the skills she has acquired, as useful in and of themselves, but in providing a means of support for her grandson's own learning, and supervision of his exploration of the internet. She has also been passing on her learning to her husband. She is delighted that provision is free, praises the teaching and learning environment unreservedly, and expresses bewilderment at the low uptake of such provision, particularly by younger people, as well as a regret that she's found it only recently herself:

"...if this had been available years ago, I could have taken things a lot further. I could have made more use of it. You know, in the outside world...I would've went a bit further with things, the learning."

On a more personal level, the process of taking a class has given her greater self-confidence and acted as a springboard to regaining her engagement with life to the level that it was prior to her daughter's disappearance.

Int 2 *"When I first started I'd never leave the house. And I've achieved now [sic] to open up. I mean it's stark. And being able to, you know, do like Word and all these things is absolutely, you know, and to be involved and be able to participate with my grandson has made a big, big difference in my life."*

On discussing any changes in her general outlook as a result of the programme, Mae says:

"Well basically I've always had a good outlook. Up until what happened...The only change I see is that I have a lot more confidence. It's instilled more confidence. Oh aye. I used to hide in shops and things."

Discussing her future plans, she hopes to move into voluntary work, in patient care or counselling by 'phone and hopes to use what she has learned in her study to a greater or lesser extent.

Stewart

Stewart is enrolled on a college-run computer networking course which awards a recognised vocational qualification. In his late 50s, he had been unemployed for 13 years at first interview, although previous to this had worked in marine engineering and electrics. In receipt of incapacity benefits, he receives a fee waiver for free study, and for an additional course hosted by another institution, he uses the Individual Learning Account (ILA), a means tested award of up to £200 towards study fees.

His study is a continuation of a reasonably recent return to formal learning four to five years previously; the motivation for this arising from inactivity:

Int 1 *"I was away back into the learning again and there was a reason for that because I was starting to get a wee bit bored and depressed."*

Int 3 *"I do have mental health problems through alcoholism, you know, but what actually saved my life, I mean I should have been dead about five years ago, and what actually saved my life was taking up full time education without a doubt, unreservedly..."*

His motivation for studying this course is responsive to an identified national skill shortage in qualified technicians. He describes the last thirteen years as a time where he has tried constantly to find paid employment, but struggled with age discrimination:

Int 1 *"I took my date of birth off my CV. I wasn't getting called for any interviews and almost immediately I got called for two interviews so that definitely had a bearing. Usual story I think, getting too old."*

He talks briefly about funding, and expresses a desire that advertising of the ILA scheme be increased:

Int 1 *"...because not everybody knows about it. ...I think it was on the television but, you know, in the short-term they should get to work with some serious advertising. Because it's absolutely brilliant."*

When asked about staff expectations in the institution, he outlines a strong emphasis on attendance because of uncertainty that the course can continue due to insufficient numbers. At the third interview, one year on, the course has been cancelled, and he has completed his qualification at the HEI which was also providing the course.

Currently he is trying to find an IT administrator's role to get work experience, prior to completing the course. He discusses how his health has improved as a result of the learning. 'I'm really happy studying, you know? It gets my mind off the depression, woes, you know...' For him, the immediate future is taken up with completing the course and managing its workload; after this, he plans to complete another short 12-week course at another institution in the same field. He also discusses the possibility of voluntary work on basic computing skills 'so I can pass on what I know to the others'. The current 'gap' for Stewart is practical work experience, but he still struggles to successfully get a job and attributes this to ageist employer attitudes:

Int 3 *"I enrolled myself in a full time 10 week call centre training course, and since I've done that course I've had 9 job interviews, and I never had like a 9th of that figure over a 9 year period previous to that. As soon as they found out, oh he's too bloody old, he's too much of a smart ass, you see. That's the impression I got. I can tell you, I believe it to this day."*

Maureen

Maureen is studying for a post-graduate certificate in practice education at a Glasgow based HEI. In her first of a two year course, she is studying part-time, working full-time and self-financing. Her engagement with formal learning is more continuous than the previous two examples; with reasonably regular College and University study over the last 20 years.

Her current role is divided between being a trainer of auxiliary and qualified nurses working in elderly care, and working as a charge nurse in the nursing home where she is based. She describes her motivation to study as being a means of moving into an alternative role (focussing on nurse education), as well as enhancing her current teaching skills and better understanding the needs of the student nurses that she mentors. She talks in her third interview of an acute need to move jobs as well as for intellectual stimulation:

Int 3 *"I have to quite honest, I mean I hope that I'm not there in five years time doing the same thing, because I think it would mentally destroy me. I think because I would need to go on and do something else, education-wise. I would need to another course to keep my brain active."*

The workload for the course is described as heavy and challenging; Maureen mentions at each interview that she is struggling but remains

confident that she will complete the course. With part of her job entailing regular staff training, she is able to continuously incorporate the principles of teaching into her practice and use this reciprocally with the university-based theoretical learning.

Within her field of nursing, despite there being allocated self-study and training days for all staff, Maureen discusses a culture of resistance to ongoing CPD and training, including the increased vocationalism and associated requirement for recognised qualifications:

Int 2 *"I have a colleague who said, 'I don't see why I need to have a degree', and I said 'Well, I do understand what you're saying and maybe ten years ago I felt the same thing...but the bottom line is you know, nursing and nurse education is changing and it will constantly evolve and at the end of the day you will need a degree'...and the thing is now people with Bachelors'...it's not enough, you need a Masters degree..."*

She describes the learning as having been personally very valuable, in terms of its applicability in the workplace, as well as making her job 'a lot more bearable'. The study gives an intellectual dimension to her work which the pressures of her job do not normally allow:

Int 2 *"...Your primary focus is on making sure that you've got enough staff to cover the shift to deliver the care and a planned nursing practice in the philosophy and the ethos is on another level. You can't integrate the two because you're so focussed on trying to get bodies in to cover your shift, and again I suppose that's why I like being at university because it takes me back onto that level..."*

DISCUSSION

From the biographies of student experiences summarised above, it can be seen that there are a number of pertinent points of comparison between learning later in policy and practice.

Scotland's lifelong learning policy framework has been shown to have a clear economic goal of (inter)national competitiveness by way of an increasingly qualified and productive workforce. Within this snapshot of our broader findings, increased professional accreditation and educational inflation are seen to be directly impacting on people's personal and professional lives often as a point of imposition rather than choice. Increased individual competitiveness in the labour market, especially from younger colleagues, necessitates professional

development despite personal misgivings about its importance. Work plays a demonstrably significant role in all students' motivations, although it is not always explicitly stated at the point of commencing study, and while it is not always in the form of paid labour, it yields direct national economic reward.

Age discrimination is recognised as being a significant issue for older adults in most life spheres but particularly in seeking (re)employment. In the case of Stewart, his efforts to find work have been exhaustive and span more than a decade. Efforts to change employer attitudes in the UK have been made through campaigns such as Age Positive (by the UK-wide Department for Work and Pensions) which seek to promote the benefits of a multi-age workforce, as well as good practice. If such a culture of resistance to later life employability continues to be pervasive within our society and employers' attitudes, this particular barrier to older adults' achievement of 'successful ageing' represents a significant wastage of not only economic but also social and cultural capital (Field, 2003).

Widening access initiatives, by way of relieving funding constraints through the use of initiatives such as the Fee Waiver policy and ILA, have been demonstrated by the study cohort to be popular. This is in respect to levels of uptake, particularly among this socio-economic group, given the high level of older adults who are in receipt of qualifying benefits (such as Incapacity Benefit and JobSeekers' Allowance). These policies are to be praised for their efficacy and in the ways they open doors. General awareness of these policies appears to be low, however, with some students in the study being funded by Fee Waiver provision, but unwittingly so. There is capacity for greater uptake with an improved knowledge of entitlements: provision just less than one full-time equivalent and beyond degree level of study.

Scottish lifelong learning strategy recognises the multi-faceted nature of learning in its acknowledgement of personal fulfilment, active citizenship and social inclusion in its definition. These aspects are all demonstrable to varying degrees in the stories of the students – for Mae, her re-engagement with society has been striking and restorative; for Maureen, she is moving towards a more fulfilling job and enjoying the intellectual stimulation of the study in the process; for Stewart however, his struggle is ongoing despite increasing qualification and working towards sector skill shortage training as an employment strategy. The area of personal

fulfilment is a dominant theme but achieved with differing levels of success, and the same can be said for active citizenship and social inclusion. Age discrimination appears to be a significant barrier to both in this students' case.

The themes arising from students' stories appear to be better located within ageing policy frameworks and humanitarian principles, of which lifelong learning is part, rather than lifelong learning policy itself. Learning is located within the wider context of peoples' lives, and takes varying degrees of priority, whether it be a vehicle for fundamental life change (intentionally or not), benefiting mental health, encouraging active engagement with community and wider life, work (paid or voluntary), or personal fulfilment. Learning has been shown to be a significant vehicle for fulfilling the principles espoused by both international and national ageing policy.

RECOMMENDATIONS AND CONCLUSION

Successful widening access to education initiatives such as assistance with funding has been seen to be well-received by older students, but there is scope for increased awareness-raising among this group. In the light of the recent release of the ageing strategy in Scotland, the time is right for working with this momentum and undertaking a concerted media campaign.

In this climate of greater tracking of student outcomes, there is an implied scope for greater articulation between sector skill shortages and graduates (demand and supply). Such a strategy could offer increased choice, as well as successful achievement of students' learning goals, and decrease wastage of valuable human resource.

Lifelong learning and ageing taken together encapsulate a sense of optimism for the future in the Scottish context if rhetoric is to be believed. Both sets of policy point to the significance of an active citizenry albeit overshadowed by the ideology of instrumentalism in the form of the skilled worker. Learning should not be disconnected with the rest of life; it is both a process and a product in which older learners have a right to engage.

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WORK BASED LEARNING: QUANTIFYING ENHANCEMENTS TO HEALTHCARE PRACTICE

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ABSTRACT

A qualitative project was conducted to quantify enhancements to practice as a result of undertaking a work-based learning (WBL) programme. Key themes identified were the development of knowledge, reflective skills and the development of transferable skills, which enabled participants to challenge practice, therefore encouraging innovation and demonstrating lifelong learning.

KEYWORDS

United Kingdom -- Work-based learning -- healthcare practice -- praxis

INTRODUCTION

United Kingdom (UK) Government policy has driven forward changes in the National Health Service (NHS) that have highlighted the importance of lifelong learning in healthcare, such as the Dearing Report (1997) and the Leitch Report (2006). However, the concept of lifelong learning has itself created dissonance with authors such as Crowther (2004) and Coffield (1999), who argue that the principle of learning throughout life has a political agenda and is a method of controlling the workforce and intensifying workloads for the benefit of employers. Despite these polar approaches, we view the principle of lifelong learning as exciting, indeed necessary and are committed to the concept. We view lifelong learning as learning based on experience which leads to the development of expertise in practice and the synthesis of theoretical knowledge from practice i.e. praxis. To support students through their lifelong learning journey, we have developed innovative work-based programmes of study to meet the needs of our students, clinical partners and the client groups they serve.

The NHS is a dynamic organisation, requiring constant learning to engage with research findings, new treatments and new technologies. As part of the New Labour initiatives, the Modernisation Agency was set up to review NHS careers and stresses the value of underpinning knowledge for advancing practice. This has led to an expectation that senior staff will not only be clinically experienced and credible but will also be able to conceptualize practice, using higher level academic skills. The Modernisation Agency and professional bodies such as the Nursing and Midwifery Council (NMC) have provided the platform for the further development of healthcare practice, encouraging new ways of working and the expansion of traditional roles,

leading to the requirement for new and on-going learning.

We constructed a series of work-based learning awards up to Master level, to enable qualified healthcare professionals to recognise and develop their expertise. Our work-based learning programmes provide a creative and imaginative strategy to embrace and recognise learning that takes place in the practice setting. Whilst the majority of students enrolled on the programme are nurses, there is a significant proportion of physiotherapists, occupational therapists and podiatrists. However, the programme is open to any qualified healthcare professional. The programme is individually negotiated with students and their employers to meet personal development needs, strategic objectives and health improvement agendas.

Although traditionally, many programmes of work-based learning in the UK have been prescribed, our programmes are entirely student-focussed with each student developing their own learning outcomes for their award, ensuring individualisation of learning through a unique programme of study. To build upon the considerable anecdotal evidence the School has, we sought to provide empirical evidence that these awards have a positive impact on practice. The programme was due for revalidation and we sought to ensure that it was meeting the educational requirements of our clinical partners and the students. The aim of the research was to evaluate the effectiveness of the programme and to assess its impact on practice, to ensure a high quality programme is delivered. A major limitation of the study is that the findings are not generalisable to work-based learning (WBL) programmes outside of the School of Health, University of Wolverhampton, although the research design is repeatable elsewhere.

THEORETICAL FRAMEWORK

Over the last decade funding opportunities for post-qualifying education have gradually been eroded. Simultaneously, Government initiatives

have emphasised the need for enhanced services to patients and their significant others in documents such as “Our health, our care, our say” (DoH, 2005) and Every Child Matters (DoH, 2003). The Modernisation Agency emphasises the need for healthcare professionals to critically analyse their practice and justify the care they are providing to their client group. Experienced practitioners who base their practice on evidence develop the ability to synthesise information, which further develops theory from practice, the notion of praxis.

The need to link theory to practice remains essential if practitioners wish to seek career advancement or progression. As a result of documents such as Agenda for Change (DoH, 2004) and Modernising NHS Careers (DoH, 2006) a new pay structure was identified which links to the skills an individual displays either through academic or clinical expertise and was presented as the “Skills Escalator”. Within this, the ability to influence practice becomes increasingly important. Similarly, whilst the impact of the Leitch report (2006) is yet to be assessed, the emphasis on the development of skills is likely to further encourage work-based learning.

Our interest in learning in the workplace arose from consideration of the work by Lave and Wenger (1991) and Eraut et al. (1999) regarding learning in practice, all of whom argue that learning arises out of challenges in the work area. Further work by Eraut (2003, 2004, 2005), Chapman (2006) and Felstead et al. (2005), additionally emphasise the importance of work to learning. Zemblyas (2006) acknowledges that work-based learning has been in existence and recognised for many years through apprenticeship schemes. However, universities have traditionally acted as the gatekeepers of knowledge and students attended university if they wished to achieve credence and universal recognition of learning (Nikolou-Walker and Garnett, 2004). Hamilton (2006) questions the relevance of educational settings when learning can take place in the work area where students have control of their learning and link learning effectively to practice. However, as Felstead et al. (2005) argue, workplace learning is undervalued by many in society and is seen as secondary learning, inferior to learning completed in a university.

Armsby et al. (2006) asserts that some universities find the recognition of knowledge gained outside of the university system threatens their traditional view of knowledge acquisition. They argue that the use of work-based learning

programmes has been more clearly established within post-1992 universities. Lester (2007) however, argues that there is considerable scope for further development of work-based learning awards and that this type of programme should be viewed as part of mainstream university activity.

Felstead et al. (2005) contend that formal education is made up of a set of abstract ideas which are universally applied and can easily be conveyed to others and any other education is viewed by society as not of equal value. Thus work-based learning, where knowledge is often specific, implicit and difficult to convey to others is seen by some as second-rate and not worthy of attention (Hamilton, 2006 and Solomon et al., 2006). Conversely, Eraut (2005) argues that the transfer of knowledge from the classroom is fraught with difficulty, as students struggle to find meaning which fits with their previous learning and experience. He states that this is because abstract learning often cannot be effectively applied to practice, therefore the value to the individual is limited. Yeilder (2004) found that the underpinning knowledge base linked with interpersonal skills resulted in changes to practice and Eraut (2005) goes on to emphasise that learning must be relevant to the learner or it will be discarded. He asserts that a commitment or motivation to learn is more positive if learning can be effectively linked to a student’s everyday practice or lifestyle. Bridger (2007) supports this view and states that success is more difficult to achieve when learning seems to have no relevance to practice.

We have considered these opposing arguments and the result is a programme of learning which meets the needs of the modern NHS through work-based learning activity. The University equips the participants with the necessary tools to enable them to critically conceptualise and analyse practice through the completion of an initial planning module; whilst work-based learning activity results in the enhancement of expertise through situated learning which is highly relevant to specific and dynamic roles. Based on Eraut’s (2005) theoretical viewpoints, the programme is student-led, as individual students design their own learning outcomes, learning methodology and assessment strategy for each work-based learning unit. Students have the opportunity to study a proportion of taught modules if this ensures a coherent pathway of study is followed. This enables appropriate, meaningful and deep learning to take place, which is applicable to the student’s specific area of practice and provides an award which is of value to both clinicians and educators.

METHODOLOGY

An interpretive phenomenological approach was used to explore the students experiences of work-based learning activity. Phenomenology is defined by Creswell (2007) as an exploration of the subjects' lived experiences. Initially, all students (n=182) who had been on the Master programme during the previous five years were sent a questionnaire, from which there was a very good return of 74 (40.6%). The questionnaire consisted of a series of open questions relating to student satisfaction, personal and practice development, level of learning, content, assessment strategies and processes, influences on their practice and progress through the programme. Thematic analysis of the questionnaire responses was undertaken, from which five major themes emerged, namely: health outcomes; quality and equity of service delivery; efficiency; cost-effectiveness and professional development. Whilst these pre-determined themes formed the basis of the discussion in the subsequent focus group, participants were encouraged to share their experiences and reflections that they felt were important.

Of the 74 students who had recently completed the Master programme and the subsequent questionnaire, twelve respondents were asked to take part in a focus group discussion. This would enable deeper understanding of their views on the impact on practice as a result of undertaking the programme. For a useful discussion to emerge from a focus group, Chioncel et al. (2003) highlight that the maximum number of participants should be twelve. As part of the Master programme, students complete either an evidence based practice project or research dissertation. As these activities are essentially different, we wished to ensure we captured the experiences of students undertaking both research techniques. We therefore chose a purposive sample of healthcare professionals who had completed the programme. The sample consisted of six students who had completed the evidence based practice project and six students who had completed the research dissertation, which would provide a representative sample, as suggested by Bowling (2002).

The focus group discussion was to be tape-recorded and subsequently transcribed however, the tape recorder failed to work and therefore detailed notes were taken during the discussion. The notes were written up and participants were given the opportunity to review them, which ensured reliability and validity of the findings (Bowling, 2002). Once the participants had agreed the content of the notes, thematic analysis

was undertaken and issues were identified which will influence future programme content and delivery.

Confidentiality was maintained throughout and the anonymised notes are stored in a secure environment, which can only be accessed by the researchers. The notes will be destroyed after a period of three years. Ethical approval was sought but not required, as this was a phenomenological review to quality assure the programme prior to the revalidation process. It sought the opinions of students who had recently completed the programme regarding its effectiveness relating to the impact on practice. However, issues of informed consent, choice and rights of participants were addressed.

RESULTS

Several issues were highlighted by participants relating to the five major themes of health outcomes; quality and equity of service delivery, efficiency, cost-effectiveness and professional development.

Health outcomes:

As a result of undertaking the programme several participants highlighted new initiatives within their Trusts with which they had been involved or indeed instigated. For example, participant F developed an operational policy to enhance the critical care outreach service; ensuring patients in the emergency department were assessed for their need for high dependency or intensive care. Participant C instigated a service which ensures stroke patients receive thrombolysis more appropriately. Participant L commented "*it allows the amalgamation of theory to practice, enhancement of skills e.g. leadership are directly transferable to practice*". Participant B proposed "*learning is relevant to my current or developing role and meets service objectives*". Participant F discussed "*the WBL programme developed the potential for assisting managers to meet service objectives, improving health outcomes*".

Quality and equity of service delivery:

Participant K stated "*I have gained better insight into audit processes, leadership roles and research enabling quality enhancement*". Participant G commented "*I have been able to apply policies and structure to a specialist service*". Participant E stated "*the programme has been of benefit to others as I manage my time better and structure reports better so the quality of service has improved*". Participant A felt that "*my written and verbal communication skills have been greatly enhanced*".

Efficiency:

Participant A was required to undertake the implementation of a new IT system within the Trust where she is employed. As a direct result of undertaking the WBL programme, she felt she was empowered to carry out the project in a more effective manner, than if she had undertaken it as part of her normal working activity. Similarly, she felt that the staff she was working with responded well to the change she was implementing because of the strategies she had formulated as part of her programme of study. Participant B stated *“the award provides an opportunity to create a tailored programme of learning which can be utilised to help staff lead or contribute to service initiatives thereby benefiting the Trust”*. Participant K commented that *“real-time practice-based learning helped me focus on what I needed to learn, rather than a taught module which prescribes the learning outcomes”*.

Professional development:

Participant D commented that she had *“developed many transferable skills which is high on the Department of Health’s current agenda”*. Participant G felt the programme had *“made me think differently”*. Participant H commented that the programme had *“improved my questioning of the ways things are done and improved my clinical reasoning skills”*. Participant I felt that the programme *“encouraged critical reflection on relevant issues which has developed me both personally and professionally”*. Participant J stated *“you can structure the programme around your ward and department so that you can develop yourself and your service. You can fit it around your home life with self-directed learning”*. Participant K commented that *“from gaining knowledge, I have gone on to feel more confident in my role and led several audit projects and been a more effective leader by implementing change based on evidence”*.

Cost effectiveness:

Participants stated their employers found the award cost-effective as they were able to apply for APL (Accreditation of Prior Learning) for up to 50% of their award; together with the accreditation of learning in the workplace and therefore reduction in study leave reduced costs within the Trusts. However, although this is advantageous to the employer, participants J and L felt they were granted less study leave than those students undertaking taught modules and were therefore somewhat disadvantaged. Participant I stated *“the programme has helped me to develop Masters level thinking and to*

develop more strategic ways of working. I feel I am a more productive employee”.

DISCUSSION

From analysis of the outcomes of the discussion, all participants felt their ability to approach care delivery utilising a critical, innovative approach had been enhanced by undertaking the programme as had their skills of reflection in and on action as described by Schön (1983). It is clear from the results that our work-based learning programme emphasised the importance of relating theory to practice and practice informing theory i.e. praxis. It was felt the programme facilitated participants’ reflection on their own practice and enabled them to challenge the practice of others. This resulted in care enhancement and the improvement of health outcomes and the quality and equity of service delivery, confirming the views of Cross et al. (2004) and Thorpe (2004) who state that reflection strengthens the link between theory and practice.

Work-based learning awards which are based on the development of reflective skills, should meet the needs of the NHS as the influence of theory on practice should be apparent as students develop deeper understanding, enabling them to develop and improve their practice. Yeilder (2004), Cross et al. (2004) and Thorpe (2004) argue that reflective practice helps to make implicit knowledge explicit, thus effectively linking knowledge with practice.

It was also felt that undertaking the programme had improved communication within healthcare teams and led to a more holistic approach to service delivery. Participants found that individualised programmes of learning related effectively to workplace needs as suggested by Lester (2007) and it was perceived by many participants that documentation had improved as a result of the learning that had taken place. In addition, critical thinking ability had been developed and care delivered was now more effectively based on best evidence. The discussion related to professional development was particularly detailed with all participants feeling the award had benefited them extensively. The professional development activity, it was felt, greatly enhanced client care and service delivery in general. Due to the enhancement in care delivery and efficiency, it was felt by participants that resources were utilised more effectively, hence cost-effectiveness had improved.

CONCLUSION

The research findings would have been further enhanced by consideration of the views of managers and academic staff which would have improved triangulation of the findings. However, as a result of undertaking the programme, a number of students constructed and implemented new policies and protocols. These directly influenced service delivery and health outcomes, most notably, for patients following cerebral vascular incident and patients in the emergency department requiring high dependency and/or intensive care.

From the discussion with participants and analysis of the results, it is clear that our work-based learning programme facilitated the development of reflective skills, which enabled participants to challenge practice and they were enabled to develop theoretical concepts from practice, the development of praxis. The issue of study leave is currently being addressed with employers throughout the revalidation process. Although some students felt disadvantaged through being unable to take as much study leave as other students undertaking taught programmes, the knowledge and skills developed throughout the award encouraged innovation, improved written and verbal communication and the development of transferable skills. Thus demonstrating that the programme has a significant impact on practice and strengthens students' motivation for the pursuit of lifelong learning.

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LEARNING BY MEN NOT IN WORK: A REVIEW OF RESEARCH

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ABSTRACT

This brief review of learning by men not in work in Australia and the UK is undertaken in the context of recent increases in the population share of such men. It explores difficulties they experience equitably accessing lifelong learning as well as the wellbeing benefits accrued from learning informally.

KEYWORDS

lifelong learning – men – not in work – equity

Why be concerned about men not in work?

This paper undertakes a brief but critical research review of learning by men not in work for reasons other than educational participation. It incorporates evidence from recent Australian and UK research to reflect on the capacity of informal learning in gendered, grassroots community settings to enhance such men's wellbeing.

Despite relatively low unemployment levels in most developed countries in 2008, including in Australia and the United Kingdom, around one third of all men are not in the paid work force. Only a relatively small proportion of these men is unemployed: most have withdrawn from the paid workforce, including but not restricted to men in age-related and early retirement. Lattimore (2007, p.xxvi) observed that withdrawal from the paid workforce varies with lifecycle needs and events. He identifies that men not in work because of education and training tend to be in early adulthood. Men who leave work through ill health (illness, injury, disability or handicap) tend to be in mid-life. Permanent and discretionary withdrawals tend to be restricted to older retirees.

Governments are becoming increasingly interested in men who are not in work of pre-official retirement age because their early withdrawal is seen as resulting in a loss in output (therefore inaccurately described as being 'economically inactive' because of a perceived 'waste of economic potential'). Lattimore (2007) shows that this economic inactivity by males in the last century has tripled while female inactivity has almost halved as participation rates of women have doubled and now approach those of men. Lattimore (p.xxvii) identifies 'The most socially and economically challenging aspect of economic activity by males [as] the significance of illness and disability' and the main motivation for detachment for the labour market. While there is ample evidence from survey and

demographic data about the health and wellbeing problems of men who do not have access to a regular, earned wage, there are very few studies of men not in work - other than the relatively small proportion of such men who are unemployed. The causes of labour market withdrawal are difficult to separate from the effects and the field is plagued by multi-causality (Lattimore, 2007, p.123). While men with poor literacy and education skills are statistically associated with lower paid jobs and higher unemployment, the high levels of illnesses and disabilities they experience and their withdrawal from the labour market are often linked to their previous work and not from unemployment (Cai and Gregory 2005, p.122).

The literature emphasises reinforcement of a range of factors resulting in a 'scarring' of individuals with the duration of joblessness (Cahuc and Zylberberg 2004). They include the difficulty of overcoming lower educational attainment, long-term health conditions and speaking another language other than English (Elliott and Dockery 2006). This scarring (and the mechanisms for 'healing' through learning) are not only about the atrophy (and replacement) of skills that job training programs typically and narrowly emphasise. Learning also has the capacity to renew confidence, overcome social isolation and depression as well as rebuild friendships and networks required to find out about jobs (Lattimore 2007, p.134). The literature also emphasises that people not in work tend to be spatially co-located and influenced by intergenerational factors, particularly associated with their parent's traits, including education levels, poverty, family stress and knowledge of the welfare system (Maloney, Maani and Pancheco 2002). Given all of the social, health, geographical, contextual and intergenerational factors that exclude people from work and education, and that work itself commonly led to their illness or disability, it is disturbing that 'programs to combat social inclusion centre on the rectification of personal deficits through training' (Tett 2002, p.37). The community men's shed movement in Australia is introduced later in the review to illustrate Tett's point that

social inclusion of excluded groups, in this case of men not in work, requires recognition of the fundamentally unequal nature of society and that people living in excluded communities '... are not the problem, rather they are the solution. People have agency and their actions can make a difference to their condition.' (Tett 2002, p.39).

Insights into men's informal learning from new research

My particular interest in this review is what difference learning makes, not only to re-enter the workforce, but also to improve individual, family and community wellbeing of men not in work inclusive of people in retirement. United Kingdom and Australia, selected for this review, are included in an in-progress, international study into men's informal learning in community contexts, deliberately inclusive of men not in work for reasons other than education, to which this review contributes. The review is considered timely with predictions of a significant increase in the proportion of men not in paid work in many developed countries with ageing populations. It is also prompted by a realisation, mainly though recent Australian and UK research, that men not in work are more likely than other men not to have access to the critically important, recurrent learning, typically provided informally through work. It is also consistent with Hearn, Muller, Oleksy et al's (2003, p.97) observation that '... there remains a massive deficit in critical transnational studies of men's practices and in the sources available for such study'.

This paper is informed by a recent suite of Australian research (Golding, Foley and Brown 2007) and UK research (McGivney 1999a, 2004) that men not in paid work, particularly those with limited or negative experiences of formal learning, while difficult to engage in many existing government-run forms of formal learning contribute actively and benefit significantly from involvement in informal community learning contexts (McGivney 1999b). This is not simply an academic pursuit about discretionary informal learning. For some excluded, older men it is about life and death. There is evidence from Australia and all other countries examined (Hearn, Muller, Oleksy et al. 2003, p.98) of strong interconnections between men's unemployment, social exclusion and ill health. There is also evidence from some of our recent research (Golding, Foley and Brown 2007) that new forms of community-based, informal learning for men not in work that are local, situated and male positive (without being negative or hegemonic) can be part of the

solution to enhance some men's lives, families and relationships.

THEORETICAL FRAMEWORK

Hearn, Muller, Oleksy et al. (2003, p.95) observe that ...

For a long time, men, masculinity and men's practices were generally taken for granted. Gender was largely seen as a matter of and for women; men were generally seen as ungendered [This] is now changing. Recent years have seen the naming of men as men. ... [A]cademic and policy debates are now more explicit, more gendered, more varied and sometimes more critical.

This paper is part of this recent trend in gender analyses that recognises the limitations of the very idea of 'masculinities' (Hearn, Muller, Oleksy et al. 2003). This paper, written by a male, prefers to talk about men as gendered beings, and specifically about *some* men who are identified as experiencing problems *as men* accessing lifelong learning. As Karoski (2007, p.69) asks in his study of the Australian men's movement, 'if the concept of masculinity indicates a concern with the nature of manhood and the object of concern is men, then why not talk about men?'

This review is conducted in the context of competing, complex discourses and debates about a 'masculinity crisis' particularly for boys in schools but also for some men, and attribution of some men's loss to some women. Karoski (2007, p.87) suggests that 'At a minimum, the discourse ... suggests that the old idea of hegemonic masculinity is no longer universally accepted and that people have begun to question what it means to be a man.' Of particular relevance to the current focus on men not in work, Heartfield (2002, cited in Karoski 2007, p.92) argues that the crisis for men is not primarily 'one of masculinity, but of the working class'. The argument goes that ...

Working class men have experienced the crisis most acutely because of their strong adherence to traditional masculinity. With the resulting challenges to masculinity from feminism, technological change and workplace reforms, the masculine base on which working class men stood, and which gave them meaning, has been shaken. Now working class men feel alienated frustrated and angry because they no longer feel secure in themselves as men.

As Karoski (2007, p. 93) summed up this argument, working class men 'have been brought up to adhere to the masculine ideal but are not

able to live up to it.' I acknowledge that learning by men not in work is a complex problem deeply impacted by class and other relationships like power and race. My interest is cognisant of but independent of feminist analyses that perceive some men as *the* problem for women and society. As a man, a pro-feminist theoretical hat sits alongside my men's hat and fits me only with some difficulty.

There is evidence from Australia that adult and community learning and organizations (Clemans 2005) and neighbourhood houses (Pope and Warr 2005) are already deliberately gendered in ways that specifically (and for good reason) encourage women as participants, attracting around 70 per cent and 90 per cent of women participants respectively. While men are not necessarily discouraged from participating, there is evidence (Golding, Brown, Foley, Harvey and Gleeson 2007) that men who would benefit most from participating are more likely not to feel comfortable participating alongside women, in what they perceive as women's spaces and women's programs. My theoretical position is that from a gender equity perspective, it has to also be acceptable for some adult learning organizations to be deliberately and openly gendered in ways that specifically (for good reasons) encourage men as participants but discourage some women. As McGivney (1999a, p.1) put it in *Excluded men: men who are missing from education and training* in the UK, 'if we aspire to be a learning society with a culture of lifelong learning' (p.2), but have '... education and training programmes and institutions which are ostensibly open to all but which attract only certain segment of our population, then that 'openness' is itself open to question.'

Identifying some or all men as the subject of equity-related, critical inquiry without sliding into simplistic male-female binarism has been problematic in recent decades. It has been difficult to find a suitable theoretical framework that simultaneously acknowledges that while women as a group continue to experience significant disadvantage in many contexts, not all men are similarly advantaged and not all women are similarly disadvantaged. It has been particularly difficult to write about the advantage some women apparently experience in some adult and community learning contexts, mainly because many of the recent lifelong learning policy discourses are strongly influenced by feminist perspectives. As O'Rourke (2007, p.4) observes in the UK, whereas ...

Forms of provision for women in community education were often aligned to a radical agenda for social change which

challenged traditional gender roles and relations, the new interventions in men's education tend to confirm rather than confront traditional gender roles for men.

While women are the main participants and beneficiaries in many adult and community education contexts (Clemans 2005), more women participate than men because they also obtain less reward in the paid workplace than men for the same amount of education and training and do far more unpaid work. Any form of intervention on behalf of some men needs therefore to be evidence based, well directed and politically nuanced. As an example, while a raft of problems were identified in Europe that affect men by Hearn, Muller, Oleksy et al. (2003), the policy makers were advised to intervene in ways that were 'not funded from women's services' (p.106).

CRITICAL REVIEW

This critical literature review is restricted primarily to recent adult learning literature from Australia and the UK. Being a brief paper is necessarily a partial analysis of a complex phenomenon. While I acknowledge the many potential benefits of gender equity for men summarised by Flood (2005, pp.2-3), including the creation of some men's spaces, I am also mindful of some of the dangers and dilemmas that Flood identifies. (p.3). These include the potential dilution of funding for women's resources and programs and of critical feminist services, men taking over, as well as the creation of a false sense of symmetry between women's and men's social positions.

Hearn, Muller, Oleksy et al. (2003) reviewed *The social problem of men* through separate national reviews of eight European countries including the UK and Ireland. While they identified somewhat different groups as being socially excluded in each nation, they generally found that ...

The social exclusion of certain men links with unemployment of certain categories of men (such as less educated, rural, ethnic minority, young, older), men's isolation within and separation from families, and associated social and health problems.

This finding is consistent with Burke and Jackson's (2007) contention in UK research, also stressed in Hearn, Muller, Oleksy et al's (2003, p.96) European review, that it is not *all* men but some men who are differentially excluded (and arguably disadvantaged in relation to some women) by age, class, ethnicity and race. McGivney (1999a, p.12) particularly identified men in the UK who are

... long term unemployed, manual workers, men with poor literacy and no or few qualifications, ex-offenders and African Caribbean men [as] significantly under-represented in many forms of formal education and training provision. ... [T]hese are groups who are particularly vulnerable to economic and social marginalisation and about whom we should be most concerned.

McGivney (1999a, p.30) identified that changes in employment in the UK ‘... over the past few decades have had a significant impact on both sexes, but particularly on men.’ Men who had lost their jobs were identified as experiencing ‘multiple loss, not only of money but of identity, social status, self-esteem and comradeship’ (p.35) because of their ‘traditional breadwinner role’. Women were found to ‘adapt more easily to loss of or retirement from paid work [and] develop new activities, often with a view to increasing social interaction’. As a European Commission (1997) report succinctly put it, ‘women continue to be defined what they do while men are defined by what they once were.’

Concern about men both in the UK and Australia, particularly from national governments, goes well beyond equity and social justice and the well-known, adverse effects on male health and life expectancy of not participating in work. As Lattimore (2007) put it in Australia,

On average the stock of economically inactive men face a more severe range of socio-economic disadvantage compared to their employed counterparts: poverty, family breakdown, poorer physical and mental health, lower self assessed wellbeing and skill loss.

Skill loss is seen as particularly problematic in recently booming economies with relatively full employment and perceived skills shortages. As McGivney (1999a, p.39) put it, the UK ‘... cannot afford either socially or economically to have a large pool of under-educated, under-qualified and under-occupied men.’ However it is important not to fall into the easy trap of wrongly assuming that more education is the *same, best* answer for everyone. As Dockerty (2005) found in research into the benefits of further schooling for the non-academically inclined in Australia, because those who complete school statistically achieve average superior outcomes does not necessarily mean that those who did not complete school would also have achieved better outcomes if they had stayed on at school.

Community-based learning as one new option for men not in work

McGivney (1999b) identified community learning as a powerful trigger for change and development. ‘People often choose familiar, non-threatening or stereotypical learning activities as a starting point’ (McGivney 1999a, p.46) that often provides a safe and critically important, informal pathway into other learning. Our research in Australia (Golding, Foley and Brown 2007) including a study of the recent growth and proliferation of community-based men’s sheds in Australia (Golding, Brown, Foley et al. 2007) is of particular interest because it provides evidence of an effective community response by men and their communities that does not come directly out of government policy. The Australian community shed model comprising a loose association of independent, grassroots men’s sheds organizations committed to supporting and enhancing the wellbeing of men, women and their families through regular, hands-on activity and socialisation in a shed type setting, with informal learning as one of many positive outcomes (see AMSA 2008) is worthy of close examination and possible adaptation to other national and cultural contexts. Whilst radical in the sense that it is grassroots and motivated by some men’s perceived disconnection and disadvantage, it is also seen as conservative in gender terms because it tends to reinforce some traditional gender roles for men. And yet on close examination it provides men not in work with a close to ideal site for reconnection, friendship, informal learning and enhanced wellbeing, with significant potential benefits also to partners, families and communities. Importantly, it is not based on a deficit model, is neither negative towards women nor hegemonic, and once understood is typically strongly supported by women.

DISCUSSION AND CONCLUSION

The bigger wellbeing picture

The life and work factors that lead to and are symptomatic of social and economic exclusion are well known. WHO (2003) has identified nine social determinants of health, around two thirds of which help explain why access, participation and success in learning can be part of a broader wellbeing solution for men not in work. The WHO determinants of particular relevance to men not in work (*italicised* below) are valuable to identify and tease out. First, people not in paid work are more prone to *stress*: anxiety, low self-esteem, social isolation and lack of control over their lives. Second, they are more likely to have had a difficult *early life* including limited and fractured early education and are likely to hold

negative attitudes towards formal learning. Third through to sixth: being *out of work* they are more likely to experience *social exclusion* through poverty and relative deprivation, experience health risk in *unemployment* through psychological pressure and have less access to *social support* networks necessary to improve health. Seventh, people not in work, by virtue of where they can afford to live, typically have less access to *transport* necessary to access education and training providers. I add an additional important factor not on the WHO list: information and communications technology (ICT) literacy, now critically important to access essential services, including education.

Not only are each of these factors self-reinforcing, but they are also arguably higher and worsening barriers for men in adult education, as McGivney (2004, Chapter 4) demonstrates. To imagine that a training course restricted to specific vocational skills can and will address each of these factors and lead men previously alienated from formal education to work and wellbeing is naïve. As Lattimore (2007, p.187) concluded, while training has been identified as a potentially important

... mechanism for reintegrating displaced older males into the labour market ... the worldwide literature on the effectiveness of training for the economically inactive has been relatively pessimistic about its ability to achieve this aspiration.

As Elliott-Major (2001) put it in a UK study, 'It is a complex cocktail of economic, social, cultural and genetic factors which appears to alienate males from schools, colleges and universities.'

The policy context for lifelong learning

At least three quite different problems are produced by a perceived mismatch between current government education and training policies, lifelong learning policies and wellbeing policies for both men and women. These problems and mismatches are regarded by many theorists as outcomes of a contemporary, global, neoliberal agenda. The first problem is with current, government supported vocational re-training strategies for people deemed to be of working age that are typically narrowly focussed on technical skills acquisition rather than on the broad raft of other factors that affect people's identities, health, social relations and wellbeing, and that act to exacerbate and maintain their vocational and social exclusion. Unsurprisingly, many people who get the skills but not work as a consequence of retraining directed at rectifying personal deficits (Tett 2002, p.37) feel more useless and isolated and withdraw from the paid

workforce early. Men in this situation without social networks often find the learning experience very isolating and difficult in a way that compounds rather than addresses their wellbeing.

The second problem is that people not of working age and 'retired' are increasingly regarded by governments as being economically inactive and therefore not eligible to have open access to free learning. If older people want to learn after retirement, governments are now expecting them to pay for themselves. With early retirement and increased longevity older people are faced with the prospect of actively learning to develop new identities and relationships in order to spend far longer periods retired from full time work. For many men whose lives, roles and identities have been tightly associated with paid work outside of the home, adapting to being roleless, underfoot or alone at home can be difficult, depressing and debilitating. Stepping out of the house and learning in deliberately feminised adult and community education providers (Clemans 2005) is unsurprisingly, not attractive for many older men. The third problem is that governments develop policies and fund services in separate 'silos' in ways that cost and value outcomes from adult education separately and differently from health and wellbeing. While governments espouse lifelong learning policies, the bottom line is that vocational skills outcomes are valued and friendships that enhance wellbeing are not. While the key value of learning to people not in work is clearly social and the social experience associated with learning has significant wellbeing benefits, these benefits are typically not measured or valued.

The literature examined supports the opening contention that some men most in need of social inclusion, particularly men not in paid work, are in several senses excluded from (or at least discouraged from participating in) adult and community education as it is currently configured in UK and Australia. Being excluded not only from work but also from the supportive company of a wider pool of other adults is known to have the potential impact to their wellbeing: their health, self-esteem and social relations. The literature also suggest that men not in work are also less likely to participate in or benefit from either formal education or training or learning for other purposes, including for enjoyment and recreation, unless it is grounded in some form of practical, work-like activity. This finding emphasises the likely importance and positive value to such men of informal learning through voluntary involvement in community contexts.

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INFORMATION LITERACY AS A FRAMEWORK TO FOSTER LIFELONG LEARNING

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ABSTRACT

It is well established that information literacy contributes to lifelong learning. This paper presents a strategy for embedding information literacy within an Operations Management subject, using the Australian and New Zealand Information Literacy Framework as the key 'design principle'. Implications for the role of the librarian/library in information literacy are raised.

KEYWORDS

information literacy – lifelong learning –
business curriculum

INTRODUCTION

It is well established that information literacy is one of the key enablers of lifelong learning capability (Bundy 2004, Andretta 2007). This is because information literacy equips learners with the tools and perspectives to engage in independent and critical thinking and towards addressing their own information needs: it helps people learn how to learn. This paper reports on a project that aimed to operationalise and embed facility in learning how to learn in the teaching and assessment of an Operations Management subject at the Queensland University of Technology, Australia. Operations Management is a management sub-discipline that deals with the transformation of inputs to the production of goods and services. Activities covered include: forecasting, planning, process design and layout, managing the service experience and quality.

The project centred on a major assessment piece which involved analysing the operations of a service firm and preparing a consultancy-style report and oral presentation on improvements. Students completed a series of weekly tasks that were designed using the Australian and New Zealand Information Literacy Framework (ANZIL Framework). The project was developed and facilitated by a teaching team that consisted of academic staff and a business liaison librarian who worked together within and outside the classroom. In the following section we discuss the relationship between information literacy and lifelong learning. This is followed by our conceptual framework and description of the method used in the project. The results of our project are summarised, followed by discussion and conclusions.

Information literacy and lifelong learning

Information literacy is widely regarded as a key enabler of lifelong learning because it fosters

skills of identifying information needs and addressing these needs in the context of independent thinking. Andretta (2007) refers to the commonality of purpose in these two constructs found in the 'learning how to learn ethos' (p 152). Elsewhere, she contrasts the more recent emphasis on independent, contextualised, relational learning in information literacy education, albeit from a predefined framework of standards (Andretta, 2004, 2005), with the emphasis on tools to uncover subject-specific knowledge. In articulating the link between information literacy and lifelong learning, Andretta joins other authors such as Lau (2006), George et al. (2001), Bundy (2003) and Ward (2006) in speaking of a cultural shift towards a constructivist approach to information literacy wherein the roles of the teacher and the information professional are transformed towards facilitator, coach and enabler of students' lifelong learning journeys.

The foundation and context of this embedded view of information literacy flows from growing attention being paid by institutions, including information literacy promoters such as the Australian and New Zealand Institute for Information Literacy (ANZIL) and the American College of Research Libraries (ACRL), to lifelong learning. This is not, however, a completely new message. In the early nineteen nineties, Candy, Crebert & O'Leary (1994) conceptualised information literacy as embedded within enquiry, problem solving and lifelong learning. This seminal contribution drew upon the turn toward generic skills that emerged from the work of the Mayer Committee (Australian Education Council. Mayer Committee, 1992), grounded the notion of graduate attributes in lifelong learning. Subsequently, the Association for College and Research Libraries' information literacy competency standards (2000) and the Australian and New Zealand Information Literacy Framework (Bundy, 2004) positioned information literacy firmly within the context of lifelong learning.

A key dilemma that has hampered academics and information professionals seeking to enact lifelong learning through information literacy education has been the availability of practical mechanisms to embed information literacy in business education beyond ad hoc library skills sessions. Although lifelong learning is now widely adopted as a key graduate capability (George et al. 2001), the embedding of information literacy has been slow. Our project was a modest attempt to advance the embedding of information literacy in a business setting through an academic/librarian partnership. For this purpose, the use of the ANZIL Framework as the core 'design principle' to structure the student assessment task is, we believe, a robust path to embed information literacy.

CONCEPTUAL FRAMEWORK

Our purpose in this project was to use the platform of an assessment task that involved analysing a real world service operation as a way of introducing students to the attributes and behaviours underpinning lifelong learning. As indicated above, the assessment task required

students working in small groups to analyse the strengths and limitations of a set of service operations management processes in a real world firm, using a range of research methods, including personal observation. Processes selected may have included: layout of the operation, management of waiting lines and queues, and the service experience. This assessment task counted for 50% of the total final mark for the subject. We identified information literacy standards as a suitable conceptual framework that could be applied to construct an independent learning journey. This was embedded in the tutorial program and supported by targeted content inputs in lectures and in the tutorials themselves. Academics and a business liaison librarian worked as partners in the classroom to guide and support our students in tackling each step of their journey through a problem-based approach. Table 1 shows how we employed the ANZIL Framework to create a structured set of independent learning tasks that were undertaken by students in small groups.

ANZIL Standard	Tutorial Activities	Learning Outcomes
1. The information literate person recognises the need for information and determines the nature and extent of the information needed	Identify operations management processes to analyse; determine sources of information needed, attendant ethics issues	Understanding of value of different types of information, possible sources and related ethics issues
2. The information literate person finds needed information effectively and efficiently	Identify key concepts to be explored in each process; construct search statements; search relevant sources	Effective search strategy enables retrieval of relevant information
3. The information literate person critically evaluates information and the information seeking process	Discuss problems encountered; re-examine search strategy; reassess; consider evaluation criteria	Information seeking process is "evolutionary"
4. The information literate person manages information collected or generated	Confirm how retrieved information is recorded/managed within group	References compiled in the required format
5. The information literate person applies prior and new information to construct new concepts or create new understandings	Analyse relationship between secondary information and primary findings; identify gaps	Knowledge and understanding extended; recommendations enabled
6. The information literate person uses information with understanding and acknowledges cultural, ethical, economic, legal and social issues surrounding the use of information	Reflect on information seeking process and ethical issues	Recognition of multiple issues associated with use of information

Table 1: Application of information literacy standards to learning tasks

Our intention was to make each of the standards the focus of a specific task or set of tasks that enabled students to tackle the objective of analysing a set of service operations in a real firm. This made the standards come alive because their application was contextualised in the subject content and in the assessment task.

The tasks and underlying processes to complete them were described in detail in a student workbook prepared for the tutorial program. For example, in relation to determining information needs (standard one), students were led through activities that involved identifying the service operations to be studied; applying relevant theory and context-specific conceptual material to unpack and articulate their the information needs and to then analyse possible information sources, classifying these sources according to 'fit' with theory and the purpose of the study, as well as accessibility. In this way, the framework for enabling lifelong learning was harmonised with subject content. We believe that the strategy of using the ANZIL framework to structure learning activities in assessment tasks is potentially a way forward in supporting the development of lifelong learners.

METHODOLOGY

This section explains how we implemented the conceptual framework in the classroom. The method used was consistent with a consultancy operation. Beyond introductory processes to explain the tutorial program and to form small groups, the tutorials operated as learning spaces for students to engage largely with each other in completing the set tasks as indicated in Table 1. In other words, students were provided with boundaries and a framework to guide them, but were then encouraged and enabled to discover and pursue their own independent learning journeys. This approach gave the information literacy standards relevance, credibility and integrity as a way for students to engage with real world operations management activities and processes, much like any management consultant might do when asked to analyse a process.

Taking a customer perspective meant that it was not critical for students to obtain access to potentially sensitive, confidential material firms. Using basic social science research methods such as observation, students could prepare an informed, credible analysis of several operations management activities and processes. As a starting point, it was suggested to students that they could collect useful information about operations by: making a layout drawing; making a process drawing; taking notes of the number of staff and their tasks, perhaps even task times;

experiencing the service and reflecting on what they thought, felt and saw; talking to others they knew who had used the service and collecting information on their perceptions and making observations relating to location, capacity and bottlenecks. Students were encouraged to at least seek to interview the manager of the operation if possible and a small sample of staff. The key point is that the structure of the independent learning task was shaped directly and entirely by the information literacy framework that we used.

At each stage of the project the business liaison librarian, lecturer and tutors worked together as partners, within and outside the classroom. Individually and severally we had a stake in the process and in the outcomes of this experiment. Students were asked to reflect on some of the challenges they faced in determining what information was needed; possible sources of data and information and methods for collection; criteria for determining the quality of information sources and how the criteria may be applied to the actual information collected; and what additional information may be needed. Applying the information literacy framework, students were also asked to consider how they might classify and organise the information that they collected. This, in part, required students to reflect on the key elements pertaining to each of the operations management activities being studied, as well as the use of appropriate software (or some other method) to store their information.

Another tutorial task involved a comparison and contrast of primary and secondary sources. An important focus here was on critical analysis – laying side by side what the literature had to say about, for example, quality control, and what was uncovered in practice. This analysis could then be used to frame recommendations for improvements in practice and perhaps areas for further research. One of the final learning activities was a reflective piece of work on the ethical, legal and social implications of the information that was collected, the way it was collected, the way the information collected was analysed and the way recommendations were constructed. Pursuant to the objectives of the course and of the information literacy standards themselves, the purpose of this activity was to move beyond a perception that operations analysis was transactional in nature, to consider values and the role of the manager/analyst/consultant in framing meaning. This was an important step in fostering a lifelong learning approach.

The engagement of library and academic staff was a key aspect of our method. The liaison librarian participated in one of the tutorial classes, for all twelve tutorials across the semester. This was enabled by a Teaching & Learning Grant provided by the Faculty of Business, in part, to buy out a significant block of the liaison librarian's time to participate in the project. This was supported by library managers who, in fact, agreed to the librarian participating in the project beyond the hours that had been paid for by the Faculty of Business. From the outset, an understanding was negotiated between the librarian and academic that, as far as practicable, participation would cover the gamut of tasks, from program design to facilitation of the learning activities in class. Given that all of these activities had been designed around the ANZIL Framework, we had a measure of confidence about taking this step. This was important so that we could start to move beyond the notion of a token library session. We reflect further on this aspect of the method in the discussion section below.

RESULTS

Our expectations of this project were modest. We did not aim or expect to produce lifelong learners in one semester, but we hoped that the strategy of tailoring learning tasks using the ANZIL Framework would be successful. The results of this project were measured in several ways. Firstly, we undertook pre and post testing of information literacy using a questionnaire adapted from a prior in-house instrument. The questionnaire tested students on their ability to interpret information needs, identify and discriminate between sources of information and organise information. The results showed a clear improvement in students' capabilities. We report in more detail on this in a subsequent paper.

Secondly, we debriefed and reflected with our students to uncover their perceptions of the independent, constructivist teaching and assessment approach that was used in the subject. The feedback from many students, both during the program and in subject evaluations, was very positive in regard to the activities that were undertaken. Students seemed to value the integration of information literacy into the assessment task rather than presenting a library class or tying such a session to an essay: they spoke of "the approach to learning operations management", "the practical focus" and "the methodical way that you structured the program". This was encouraging indicative evidence that the strategy of using of the information literacy framework as a light for the lifelong learning path had had some success as

'the software' behind the learning journey. The liaison librarian's participation in all tutorials offered students the added dimension of informal discussion with an information specialist: as students worked through the tasks, their questions evidenced an increasing understanding of the use of information, applied as it was to a discipline-specific focus.

Thirdly, we reflected on the quality of reports submitted by groups. The end product of this consultancy style project was a written report and oral presentation. The quality of these deliverables, in many cases, was superb. The teaching team members pointed to several examples of exemplary work, which was consistent with their observations of group processes and progress during the tutorial program. But, not all students enjoyed this approach. Feedback from tutors and from a minority of students indicated discomfort with the degree of self-efficacy expected in the program. This was evident, to some degree, during the program, when we observed instances of disengagement and resistance to undertaking independent learning activities rather than more straightforward application exercises.

DISCUSSION AND CONCLUSION

The results indicate that this project was successful in piloting a strategy to embed information literacy in a business subject. This, according to the literature, is a key element in the enabling power of information literacy education towards lifelong learning. There are several issues that may be raised which relate to the role of academics, liaison librarians and also the impacts on students.

It has been difficult for some academics to grasp the scope and breadth of lifelong learning and of the power of information literacy education as an enabler. It has also been difficult for librarians to sell the benefits of information literacy to academics. We believe that our project made significant headway in addressing this blockage. Our approach was experimental to a degree and will need to be tested further before firm conclusions can be drawn about its efficacy. Based on students' feedback and our observations, the concept of using information literacy standards as a way of embedding lifelong learning in the core content of business courses is promising. From the academics' viewpoint, the power of the approach taken in this project was that information literacy was not something to be accommodated as a concession to the library's prompting, as valid and important as this may be. Rather, information literacy offered a solution to a problem that we owned – to develop an

effective learning strategy to help our students to engage with the processes and techniques of Operations Management. As indicated earlier, this had proven to be a real challenge for us. This was the 'hook' that awakened our interest, and now passion, for information literacy in fostering the journey towards lifelong learning in our students. From a tactical viewpoint, we believe that this logic has real power in the way information literacy is positioned and applied in university education.

Collaboration between liaison librarians and academics is an area of ongoing debate in the library and information literacy literatures. Increasing attention is being devoted to this aspect of information literacy education because it is seen as an important condition for delivering embedded programs effectively. The rhetoric of partnership has been difficult to deliver in practice, though not for want of trying by librarians worldwide. Although we proffer no magic bullet to this issue, we believe that the approach taken in this project does contain the seeds of a strategy for giving lift and renewed relevance to information literacy and lifelong learning in the commons. For the liaison librarian in this project, the opportunity to blend information literacy with discipline-specific content was a positive step towards the ultimate goal of offering an embedded, sequential program through a course of study. To achieve such a goal will require not only a commitment by both faculty and university, but also a strategic approach by the academic library to achieve such programs. The tension between academic libraries' support of both teaching and research, and the provision of core services to the academic community is real and challenging. On the one hand, we are committed to facilitating deep learning through embedded, integrated approaches and we often see missed opportunities in information literacy initiatives that could be better connected to context. On the other hand, this can be problematic amidst increasing demands placed on liaison librarians as universities seek to strengthen their research cultures and as library systems and practices evolve. Attendant factors have been discussed previously in the literature, and continue to be debated.

From the student perspective, as indicated above, some were concerned about the degree of independence and loosely structured boundaries and processes employed in the assessment tasks. This points to one of the risks in using information literacy education to support lifelong learning, particularly with assessable tasks. It is important to provide adequate supports for

students and perhaps to take a case management approach to engaging with students. This is an area that warrants further study and it is problematic to draw clearer conclusions based on one case.

We did not try to measure the impact of our work on lifelong learning. At present there is more extant literature on measuring information literacy in a technical sense, for example Neely (2006), than there is on the link between information literacy and lifelong learning. If we are serious about linking these two important constructs, then better metrics and tools are needed. Certainly, a key to building this link is to embed information literacy in an ordered, programmatic way across curricula and not just in individual subjects.

Regrettably, there is a perception in some quarters that information literacy is an add on capability in business education, perhaps even a relatively less important capability and worse still, one that is elementary and largely the province of the librarian. For some, this means that, if any attention is paid at all to this area, it consists of a cursory 'library skills session' provided by library staff or a handout or a web site link given to students. Worse than the uninformed professional orientation that this perspective indicates, this thinking deprives our students of important formation that carries long term benefits for their employers and lifelong benefits for themselves. We, therefore, continue to seek improvement in the design and operationalisation of the links between information literacy education and lifelong learning.

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INTERNATIONAL STUDENTS: DOES ATTENDANCE AS AN INDICATOR OF INVOLVEMENT CORRELATE WITH ASSESSMENT PERFORMANCE?

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ABSTRACT

This paper provides insights into productive patterns of approach to study and a way of framing successes for international students. It reports the preliminary analyses of data on attendance, performance and student course evaluations and seeks to determine relationships between them.

KEYWORDS

international students, attendance, student results, performance, evaluation

INTRODUCTION

Studies reviewing the relationship between student attendance and performance are plentiful and the result appears to be intuitive – if students do not attend classes they will not gain the full benefits of their programme. The reasons for poor attendance are not well researched or easy to determine as it is a complex and sensitive issue. A student who has poor attendance may be regarded as poorly motivated, but this need not necessarily be the case. A measure of total term attendance, such as an average or percentage of all weeks in the term, does not take into account the variation in activities and their value, from a student perspective, of different parts of the term. These include: the ‘scene setting’ at the beginning; the pace established during the term; the preparation in the weeks preceding each in-term assessment task; the systematic and continuous build up of the student’s knowledge base over the term, and the preparation for a major end of term exam. This paper describes a study that explores the notion of attendance, correlating this to grades received. The study aims to ascertain the importance of attendance for positive student outcomes at a international campus of a regional university in Australia. It demonstrates that the early weeks are especially critical for success in a term and provides an insight into how students can optimise their chances of success and establish patterns of learning which will serve them well in future. This paper highlights strategies for success of international students as part of framing futures for lifelong learning.

The study

The study analyses the relationship between attendance patterns for international students over the term for different types of course and assessment and association with student opinions of the course and teaching in each case. It uses data from four courses to determine relationships

between attendance, performance (in both assignments and exams) and student perceptions of the value of the course design and teaching. We worked on the premise that these may show a relationship as attendance in university classes is largely the voluntary decision of the students and they will make this decision largely based on their perception of the value of the teaching to them.

Universities in Australia commonly permit late international enrolments up to 2 weeks after the commencement of classes, either for the whole term or individual changes (drop/adds). At Central Queensland University (CQU) students may enrol as late as the end of the second week and some do. The university’s international campuses provide individual academic consultations with each international student, new and continuing, at enrolment at the beginning of each term, effectively reducing the proportions of drop/adds. By using the date of enrolment as a further parameter we could establish which students had substantially missed the first week or the first and second weeks of term, both tutorials and lectures. This is confirmed by attendance data for the same weeks. From this data we extracted an average tutorial attendance for the term and attendance in all classes, lectures and tutorials, in the first two weeks. The focus on the first two weeks of term followed an earlier study (Hamilton and Hinton, 2008 submitted for publication) showing that missing one or both of the first two weeks of a course (for similar cohorts of students) had a significant impact on their term performance. We proposed that these early weeks would be important for scene setting and clarifying the requirements of each course and the expectations of academics. Yorke (1997) used this assumption in his work on success factors for student retention. These early weeks would also be seen as vital for preparation for early assessment tasks. We also believe that this time will be especially important for international students as they would often need sound grounding to get established in subjects each term.

BACKGROUND

Much of the literature on international students focuses on supposed differences in learning styles, competition to attract enrolments and the appropriate English standards and student capabilities for successful study in Australia to succeed (Langan, Shuker, Cullen, Penney, Preziosi & Wheeler, 2007). Other literature identifies that Australian university curricula struggles to meet the learning needs of international students, especially the variety of, and differences in, learning styles, skills and approaches in different learning cultures (Leder & Forgasz, 2004; Harnett, Römcke & Yap, 2004; Guilfoyle, 2006; Leong & Chou, 2002)

There have been numerous studies of the relationship between international students' attendance and performance at university, with the common conclusion that there is such a link (Durdin & Ellis, 1995; Lamdin, 1996). Others, such as Baldwin, (1994) and Gatherer and Manning, (1998) have not found a strong statistical relationship between lecture attendance and international student performance. Similarly van Walbeek, (2004) found a weak association. Moore, Armstrong and Pearson (2008) have recently conducted a literature review on the benefits of lecture attendance at university and have performed a qualitative analysis of student absenteeism based on comments of the students themselves. The authors believed that an understanding of the basis for absenteeism would assist with efforts to gain greater 'engagement with higher education learning environments'. Marburger (2001) found that studies exploring such links used 'broad measure of academic achievement' to examine the notions of performance and attendance.

Little focus has fallen on those critical weeks at the beginning of term where, arguably, new students are learning to acculturate to their surroundings, generally finding work and accommodation, transportation, dealing with reality shock and language differences. These issues affect continuing students as well as first year new students.

Yorke (2004) found that students' evaluation of their subjects had the added benefit of further connecting students with their institution. Undertaking student evaluation is a measure of their persistence, a factor in retention, with attendance being another measure. Yorke proposes that students undertaking subject evaluation will be effectively engaging with the learning context, the learning materials and the teaching team.

Evaluation literature identifies much about the role of the teacher, the course materials, assessment and learning journey but little has been identified that correlates assessment, overall performance, attendance and student evaluation. This paper examines how attendance may affect performance of international students and, in turn, how perceptions of the importance of attending class shape attendance and performance. It also recognises the need to explore the impact of attendance at critical points in the term, rather than just the total attendance for the term.

METHODOLOGY

Data for an international student cohort was collected for 2005 from an Australian International Campus in a major capital city. Representative undergraduate and postgraduate accounting and information systems courses (subjects) were selected. The courses are each offered beyond the first term and selected to be representative of their respective fields.

- They have been labelled as follows:
- UG informatics – UGIF
- PG informatics – PGIF
- UG accounting – UGAC
- PG accounting – PGAC

The total student enrolment for each of the four courses was used for the analysis, omitting only students who had not completed any assignments or the exam.

Class attendance data was collected weekly for tutorials for the period of study over the twelve weeks of term in each of the four courses. We also used a record of overall attendance (lectures and tutorials) for the first two weeks, including data indicating when the student enrolled.

Cognos PowerPlay was used to mine PeopleSoft student data records for each of the four subjects, whilst maintaining the anonymity of individual students. Each of the four courses has assignment and exam components. We accessed campus results for performance in components of assessment, using categories of combined in-term assessment results and exam results for each course. Only students who had completed all pieces of assessment were included.

Spreadsheets were developed which combined the results and attendance data. Analyses were then performed to determine the correlations between assignment, exam and total (final) results on the one hand and attendance in weeks one and two and average attendance for the term on the other. Tests of degree of correlation between results and attendance in the first two weeks were performed using Spearman's Rank

correlation analysis (Wessa, 2008). Tests of correlation between proportion of attendance for the term and results were performed using Pearson correlation analysis (Wessa, 2008).

The students completed a Student Evaluation survey form for each course to gain their feedback about the course and teaching. The survey posed questions on a Likert scale. Student Evaluation data was combined for each class, preserving the anonymity of responses, and analysed. The Likert scale responses were converted to numerical values then averaged, a higher average value (up to 5) being more favourable. Since the sample sizes ranged from 14 to 19 returns per course, we have decided not

to use this as a statistically valid sample and have therefore not attempted to analyse it for statistical significance. It is only used to indicate student perceptions of the value of the course and of the teaching.

RESULTS

Results of the Spearman's Rank Correlation between attendance in weeks 1 and 2 and assignment and exam results, respectively and Pearson Correlation between term attendance and assignment and exam results, respectively, are presented in Table 1, which shows the level of significance for each comparison.

Table 1: Level of significance of the correlations between attendance and results

Course	Assessment	Attendance 1 + 2 Correlation Coefficient	Significance	Coefficient of Determination	Attendance 1 + 2 Correlation Coefficient	Significance	Coefficient of Determination
UGAC	In Term	0.0270	NS	0.0007	0.0288	***	0.0008
	Exam	0.1350	NS	0.0180	0.1145	NS	0.0130
PGAC	In Term	-0.1730	NS	0.0300	0.0759	NS	0.0060
	Exam	-0.1190	NS	0.0140	0.0318	NS	0.0010
UGIF	In Term	0.3650	***	0.1340	0.2480	**	0.0610
	Exam	0.3590	***	0.1290	0.4230	***	0.1790
PGIF	In Term	0.4050	***	0.1640	0.4380	***	0.1920
	Exam	0.2020	***	0.0410	0.2830	***	0.0800

Probabilities		
NS > 0.1	** < 0.05	*** < 0.001

A summary of the assessment type for each of the four courses is presented in Table 2.



Table 2: Assessment type for each course, including proportion of mark allocated.

	UGIF		PGIF		UGAC		PGAC	
Assignment	Type	Marks	Type	Marks	Type	Marks	Type	Mark
Assign 1	Program case study Wk 4	10	Technical simulation scenario Wk 6	20	Report Wk 5	10	Test (Theory, Probability, Case Study) Wk 8	30
Assign 2	Program case study Wk 4	25	Technical simulation scenario Wk 10	20	Prac Exercise Wk 11	20	Class Participation	10
Exam		65		60		70		60

A comparison of the attendance for weeks 1 and 2, attendance for the term, evaluation average for the questions relating to teaching and the aggregate results obtained for assignments and results obtained for exams are presented in Table 3.

Table 3: Comparison between attendance, evaluation and results for each course

Course	Attendance		Evaluation	Results	
	Total	Week 1 & 2		Assignment	Exam
UGAC	Lowest	1	3.3	64	40
PGAC	Intermediate	0.9	3.5	74	54
UGIF	Intermediate	0.5	3.56	61	63
PGIF	Highest	1	4.13	57	74

 Highest
  Lowest

DISCUSSION : OBSERVATIONS

The follow observations are made for each course.

Undergraduate Accounting (UGAC)

Assessment for this course consisted of a 70% exam and two term exercises, a 10% report and a 20% practical exercise. There was no significant correlation between the level of student attendance in weeks 1 and 2 and performance in either total assignments marks or exam marks. By comparison, total assignment results are significantly correlated with average term attendance whereas exam results were not. Table 3 shows that exam results were poor when compared with the exam results for each of the other three courses studied. Results were more widely distributed for students with lower attendance, a characteristic shared by the results for both undergraduate courses studied when compared with the postgraduate results. This possibly reflects a greater diversity of the background of (international) undergraduates, compared with postgraduates.

Undergraduate Informatics (UGIF)

There were two assessment tasks in this subject totalling 35% and an exam of 65%. The correlation between attendance in weeks 1 and 2 and each of the aggregate assignment, exam and final results were each highly significant. There was also a high correlation of each of these three sets of results with overall attendance for the term. For all three factors assignments, exams

and attendance, the trend was for students to obtain better marks where their attendance was higher. As shown in Table 3 a higher proportion of the UGIF students missed either week 1 or 2, compared with the other courses. As with the undergraduate accounting course there was a greater dispersion of results with lower levels of attendance, in contrast to the results for both postgraduate courses in both disciplines.

Postgraduate Accounting (PGAC)

The assessment for this course is notable for the inclusion of a term test worth 30% of the marks, with marks for work done under exam conditions totalling 90%. There is no significant correlation between results for assignments or exams, and attendance, whether for overall attendance in the term or in weeks one and two.

Postgraduate Informatics (PGIF)

Assignment, final and total results are all highly correlated with attendance, including both term attendance and attendance in weeks 1 and 2. The assessment tasks in the subject consisted of two assignments of 20%, each with an exam of 60%. Both the assignments were technical simulation scenarios which require significant classroom involvement by students. This course had the highest pass rate of the four courses studied.

Referring to Table 1 and comparing the analysis of correlation between results (assignments and exams) and attendance (the first two weeks and total for the term) reveals that for all but the

undergraduate informatics course (UGIF) the highest level of correlation is between assignment results and attendance. For both UGAC and PGIF this is true for both attendance in the first two weeks and for average attendance for the term. The only exception is for UGIF where the exam results are more highly correlated with total attendance.

In all four courses the correlation is highest between attendance in the first two weeks and assignment results (though not significantly so in the case of the two accounting courses). In each case the correlation is higher between results and total attendance than for results and attendance in the first two weeks.

The aggregate results, taken overall, show that a low or high overall class attendance for the term is associated with low or high average class marks, as expected. A more detailed analysis of individual attendance and performance reveals that the stronger correlation is with assignment marks. This is true of both total attendance and attendance in the first two weeks but greater for total attendance.

Comparing the four courses, Table 3 shows that the undergraduate accounting course UGAC had the lowest attendance and lowest exam results, and student evaluation of the teaching and course was also lowest of the three. By contrast the course producing the highest exam mark, the postgraduate informatics course PGIF, had the highest term attendance and students had the highest opinion of the course and teaching. Results, attendance and student evaluations are all intermediate for the other two courses, postgraduate accounting PGAC and undergraduate informatics UGIF. This preliminary result from the class results of the Student Evaluations suggests that there is a connection between student opinion of their course and their total attendance. PGIF has the highest total attendance and the highest Student Evaluation score, while UGAC had the lowest of each.

Whether students formed an early impression about their course and this coloured their attendance patterns or whether there are other reasons have not been determined, but the relationship between the two and their effect on performance warrants attention. It is planned to widen this work to explore consistencies across campuses and to broaden the scope of the analysis by increasing the number of courses studied. The results also build on our earlier study (Hamilton & Hinton, 2008) emphasising the critical role of the early weeks of the term for

student performance. There may be a number of reasons for the importance of attendance in early weeks and this warrants further investigation. We make some suggestions for this below.

RECOMMENDATIONS

The findings of our study suggest that students who do not enrol on time or miss classes in early weeks are less motivated to do well their subsequent results. It is expected that students will benefit from the ground work established in the early weeks of term gaining, critically: an orientation to the course and its requirements; early access to resources; and an early start in preparation for assessment. A lecturer will typically clarify their expectation of their class in these early weeks, and clarify their teaching approach; their expectations of students; clarify how resources are to be used; describe the assessment and guide students' preparation for it. Students might then start a pattern of effective study from the beginning and retain this throughout the term. They are then more likely to achieve early mastery of content provided in those early weeks, and may better lay the foundation for subsequent material and make links between the new material and that which they have learned in the previous term. We expect there to be an early alignment of the motivations, expectations, priorities and values of the students and academics teaching the subject. Students making an early start will make good contact with other students and teaching staff, increasing the chance of active engagement in class. They are more likely to start earlier on assessable tasks that are scheduled within the term. They are more likely to purchase and use text books and other set learning resources (and, of course, use them from the outset). Students will also be placed under less pressure in the subsequent weeks of term as they will not have to deal with the content they missed while trying to master current content - especially daunting where the subject is designed so that knowledge is built progressively.

A further recommendation is that we explore ways to increase the advantage of involvement in the classroom to improve exam results, including providing early and practical advice in class about exams and how to tackle them.

It is important to recognise that students may be establishing or re-establishing their living arrangements early in the term, whether as new students or students returning after a working break or a holiday, compounding the problems of getting a sound start to the term. The overlay of catching up on missed terms can create significant stress. It is a tiring time for students.

Into this mix, good attendance is a requirement for international students [(the group under study)] under their Visa regulations. For all students there are competing demands on their time at the start of term and they must make decisions based on a range of needs: food, travel, work, accommodation, enrolling, purchasing text books and study materials, family and social life (Guilfoyle, 2006). If students start classes after the term has commenced this can both be the result of outside pressures in their lives. It will in most cases place further pressure on their studies. It is in this critical period that students who miss early classes will need a sound orientation to their studies and this should include a supportive learning plan and assistance with fast-tracking them into their courses. There are competing demands on new international students who must have time to settle into a new environment, home, university and social assimilate the course content and adjust to studying in Australia (Leder & Forgasz, 2004).

The research presented in this paper offers a preliminary examination of the importance of student attendance to pre-term activities like orientation, engagement in assessment tasks, and attendance with success in their courses. It should be remembered that the students studied were predominantly international students for whom English is their second language. This makes it even more important that they get a sound grounding in their subjects and the best teaching and learning environments possible. This study also suggests that evaluation may be useful not just for feedback for pedagogical improvement but also as an indicator of the degree to which students are motivated to engage with the course. This aspect of the study is preliminary but deserves further work.

The main focus of this study has been on attendance which we regard as an indicator of intrinsic motivation and the result of a number of factors, including quality of a course and its teaching. It is certainly a result of an individual decision by the student, even when assessment includes a requirement of attendance -as in postgraduate accounting, PGAC, with 10 percent ascribed to class participation. In the case of Australian international students, their visa has a requirement that students have good attendance – serving as an indicator that they are serious students. Whatever the reason that a student attends a class they are then involved, albeit to varying degrees. They are then more likely to become engaged in the course and to gain a better appreciation of what is required. The results indicate that this will be especially true of

assignments where the students will explore their understanding and gain feedback in class from their early forays into the topic.

Attendance over the term is a reflection of the degree of a student's involvement in a course. Obviously there will be times in the term when attendance is especially critical. We have shown in this and a previous study that the early weeks are critical for a variety of reasons, discussed above. This study has shown that there are strategies for educational success for international students. So in reflecting on what is required to be done, it frames the future for educators of international students to examine how attendance can influence success.

CONCLUSION

Our study's findings suggest that students should be actively encouraged to attend classes from the outset if they are to optimise their chances of success. Overall attendance is correlated with performance in assignments and exams, depending on the course and the circumstances. We can state that increased attendance, including in the first weeks, is an indicator of the probability that students may gain improved marks in different assessment tasks, but especially assignment work. Whether this is cause and effect and the result of good teaching or a reflection of intrinsic motivation, or a complex interaction between the two has not been determined in this study. Both could be expected to enhance student involvement and engagement to some degree, and we would expect that good teaching would enhance student motivation.

Means of achieving good attendance, and from the outset, will depend on the university and the course but could include ensuring that enrolment is complete by the start of term, that students are counselled ahead of term about the risk of missing classes especially early classes (including in the previous term in the case of continuing students). Students who do miss early weeks of term need to be systematically picked up and regarded as 'at risk' students. Of more fundamental concern, we do need to better understand what motivates students to attend classes, both from the outset and throughout the term. Attendance in class is for the most part voluntary at universities and hence an understanding about how courses are best designed and taught, and students' engagement becomes even more critical. Closing the feedback loop between course and teacher evaluation and course design to achieve improved engagement is one of the challenges this study presents

The study demonstrates the merit in encouraging students to attend classes through the term. Their attendance will reflect that they are involved to some degree. It is the teachers' role to convert this into enhanced engagement.

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PARAPROFESSIONAL TRAINING AND PRACTICES WORKING WITH ENGLISH LANGUAGE LEARNERS IN NEW ZEALAND SCHOOLS

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ABSTRACT

Paraprofessionals working with English language learners are now a prominent feature of the NZ government's overall strategy to raise English language proficiency for children whose home and or first language is not English. This paper considers the professional development needs of paraprofessionals through evaluating their practices.

KEYWORDS

Paraprofessionals, English language learners (ELLs), ESOL, professional development, lifelong learning.

INTRODUCTION

Lifelong learning has been accused of being more of a policy slogan than a philosophically generated concept underpinned by empirical research (Kang, 2007). Academic work on the topic has not really succeeded in shifting perceptions of the area as being somewhat amorphous (see, for example, Field, 2000). Whether this is a problem or not is open for debate. It seems that lifelong learning's openness does provide the flexibility required in postmodern times and the concomitant need to learn for and shape new modes of knowledge production (Edwards and Usher, 2001). One of the predominant facets of postmodernity is unprecedented global migration and the resettlement of white settler societies like New Zealand with people from diverse cultures and languages. Providing a robust learning environment and education for the children of migrants is just one of the complex areas of new and ongoing knowledge production and learning that exercises the minds of educators across the western world.

As an evaluation of the learning and teaching of ESOL paraprofessionals, this study provides some empirical flesh for the concept of lifelong learning. The paper reports on the first part of a two year study on the practices of ESOL (English for Speakers of Other Languages) paraprofessionals working with ELLs (English Language Learners) in initial reading programmes. In this phase of the study researchers analysed paraprofessional practices with a view to reporting on areas of practice that could/should be addressed in professional development. The second part of the research is currently underway. This consists of an evaluation of the English Language Assistants

(ELA) professional development programme which has been offered since 2002.

As part of a wider response to findings that assert that having a home language different from the school language is a significant risk factor for achieving lower levels of literacy as well as for lower school achievement in general (Wylie et al, 2000; OECD (Organisation for Economic Co-operation and Development), 2001) the Ministry of Education has allocated special funding for resourcing ESOL provision in New Zealand schools. One of the targets for this funding is the employment of teacher aides/language assistants, referred to in this paper as 'paraprofessionals' because they are not trained (professional) teachers. In New Zealand the Ministry of Education (2006) defines paraprofessionals as: 'Teacher aides and education, behaviour and communication support workers' and in turn defines teacher aides as 'People who help educators support children and young people who have special education needs, also known as kaiawhina and paraprofessionals.'

Ministry suggestions for the ways in which paraprofessionals can be deployed in ESOL work are as follows:

Read to and with a small group of students, with supportive activities and discussion;
work through the <i>Self-Pacing Boxes</i> programme with individuals or small group;
develop key oral and written vocabulary in a specific curriculum, topic or concept area, through discussion and using visual support materials with a group;
support first language translation and interpretation to aid learning;
be available in a class to support NESB students in carrying out specific learning tasks set by the class teacher;
prepare and organise materials and learning support resources under teacher direction;
supervise learning centres established by the teacher.

(Ministry of Education, 2006)

Those paraprofessionals employed for work with ELLs in New Zealand schools may be from a variety of employment and educational backgrounds and might be bilingual, multilingual or English speaking only. Equally, they may be employed to support the work of teachers in a variety of ways.

The question of professional development and ongoing education for ESOL paraprofessionals working with ELLs is an important one which the New Zealand Ministry of Education has attempted to address through providing targeted one-off courses. These courses are called ELA Professional Development and are run under the auspices of the Ministry and delivered through the commercial arm of a New Zealand university. They are run over one semester via five full day seminars followed by a graduation. For every school that participates, one coordinating teacher and at least two paraprofessionals attend the course. Paraprofessionals have assignments to complete throughout the course. One of the general quality indicators for the courses is that paraprofessionals develop as lifelong learners.

LITERATURE REVIEW

The majority of paraprofessionals are women who tend to be re-entering the workforce after a period of absence and generally live near the schools they work in (Pickett et al, 2003). Significantly, paraprofessionals predominantly teach and support in areas of high specialisation e.g. students with learning disabilities, students from very diverse cultural and linguistic backgrounds and students with high physical needs. Giangreco (1999) notes that one of the biggest concerns with paraprofessionals is their lack of training coupled with the considerable time they spend with high, or at least, extra needs students. Consequently the issue of ongoing training and education for paraprofessionals has been an area of considerable interest in the literature. This ranges from sharing ideas for school-based inductions and focussed training sessions with teachers (e.g. Cobb, 2007, Hauge & Babkie 2006) to the analysis of comprehensive career advancement programmes (Pickett et al, 2003). In the United States these latter

programmes began in the 1960s as a way of moving paraprofessionals and other non-traditional students into teacher education (Pickett et al 2003, Kaplan 1977) at a time of low teacher numbers and in recognition of the need to train teachers more able to relate to the communities in which they were teaching.

Professional development for paraprofessionals remaining in the role, however, seems to be patchy (Giangreco, 2003). Many paraprofessionals have an inadequate repertoire of strategies and the educational theories from which they are derived, for the range of instructional situations in which paraprofessionals find themselves (Forster & Holbrook, 2005) (Harvey et al, 2008). Moreover, for many paraprofessionals their work has evolved well beyond the original paraprofessional role of administrative support. Increasingly the paraprofessional role involves instruction and is often unsupervised (Forster & Holbrook 2005; Likins, 2003; Harvey et al, 2008).

Another side to the issue of general and specific training for paraprofessionals is the issue of how teachers interact with their paraprofessionals. Giangreco (2003) writes that teachers can be so relieved at having a paraprofessional in their classroom to deal with a student/s with special needs that they disengage from teaching the student/s themselves. Moreover if the paraprofessional has had any level of training (or many years of experience) they may well be deferred to as the person with the expertise as far as a particular students or group of students is concerned. Giangreco (2003) warns against this and urges teachers to take responsibility for directing learning for *all* their students including those with high/special needs. A corollary is that teachers need more training themselves in how to direct the instructional activities of paraprofessionals, either through pre-service or in-service training (French, 2001, Downing et al 2000, Wallace et al, 2001). An important feature of the ELA Professional Development Programme is that coordinating teachers attend

the five day course run over one semester alongside the paraprofessionals that they direct.

Despite most of the above literature relating to paraprofessionals supporting students with physical and behavioural difficulties, the current study (Harvey et al, 2008) investigating the practices of ESOL paraprofessionals working with ELLs in initial reading programmes has uncovered a range of similar and related issues in relation to the professional development required by paraprofessionals.

RESEARCH DESIGN

The study, conducted in 2007, was largely qualitative, aiming to occupy a 'watching space'. That is, the researchers observed and recorded what happened in schools and classrooms without attempting to modify the environment in any way (Nunan 1992), although unavoidably the presence of a researcher in the room with students and paraprofessionals was in itself intrusive to some degree (Labov's [1972] observer's paradox). Observations were supplemented by interviews which served the purpose of contextualising and informing the observations. The focus was on the practices and working context of the paraprofessionals in their daily work in initial reading programmes with ELL students. ERO (Education Review Office) reports for all the schools involved as well as ESOL verification reports obtained through the Ministry of Education were also analysed.

For years 1-4, four teachers with responsibility for paraprofessionals working in ESOL and ESOL reading in particular, were interviewed to discuss the organisation and practices of ESOL paraprofessionals in their school. Information existed at this level and a full study as implemented at higher levels in the school system was not required.

For years 5-13, data was gathered through forty eight observations of paraprofessionals working in classrooms or withdrawal situations and twenty four interviews with the same paraprofessionals and the teachers who direct their work. The interviews and observations were equally divided between primary (years 5-6), intermediate (years 7-8) and secondary (years 9-13) schools. That is, there were sixteen observations of paraprofessionals working in each sector and eight interviews with the paraprofessionals and their associated teachers. All data was recorded as handwritten notes and later written into electronic data files. There was no electronic recording of data during the observations or interviews.

Findings

The paraprofessionals themselves were diverse, although exclusively women. The research team distinguished between two groups. One group were the New Zealand-born and largely monolingual paraprofessionals who tended to have come to the work through mother help roles. They had mostly completed general courses for paraprofessionals and some specifically for ESOL. In the primary and intermediate sectors no New Zealand-born paraprofessionals had completed university qualifications although several had taken university level papers. In the secondary sector both New Zealand-born and migrant paraprofessionals tended to have university qualifications, including ESOL-specific qualifications. The overseas-born and largely multilingual paraprofessionals across the sectors tended to have tertiary qualifications from their own countries as well as, in some cases, extensive experience as teachers. Several of these paraprofessionals were very skilled educators. The research team felt it was important to recognise the different strengths that the two distinct groups had in supporting student learning. It may well be that in the future some differentiation of training would be appropriate for these two groups. It also seemed that training should address varying levels of experience and skills with ELL students generally, as well as in particular areas e.g. assisting target pronunciation and focussing on form.

The issue of career structuring and staircasing was raised a number of times by principals, teachers and paraprofessionals during the course of the research. Most participants believed there was a need for a more explicit career path for paraprofessionals. However, it should be noted that some paraprofessionals liked working in the role *because* it carried no career expectations or pressures and they simply enjoyed the interaction with students. Some ideas for improving the career pathways for paraprofessionals included a training progression through a series of graded steps (beyond the current two) which could count towards a component of formal teacher training. An alternative idea was that training could lead towards a specialised TESOL qualification for paraprofessionals who could work full time on a peripatetic basis between nearby schools.

A problem for several overseas-born paraprofessionals, particularly those with qualifications and teaching experience from their countries, was that they wanted to become teachers in New Zealand. However these people found the requirements for registration and/or retraining overwhelming and expensive.

The observed range of levels of effectiveness of paraprofessionals across all school sectors varied widely. Many paraprofessionals worked very effectively to promote successful learning with students, others worked well on some levels e.g. displaying empathy towards students and giving positive feedback, but were less skilled in other areas e.g. questioning and correctly levelling materials. However, some paraprofessionals were working in contexts beyond their skill and experience level. This tended to be where they were working in situations which exceeded the Ministry's guidelines (Ministry of Education, 2006) i.e. they were working largely autonomously without clear teacher direction or supervision.

Planning and coordination between paraprofessionals and teachers also varied widely with some paraprofessionals being very closely directed by a teacher and, others being relatively free to plan sessions and to choose what resources to use. In some cases this was because teachers were too busy to work with paraprofessionals, in other cases it was because the paraprofessionals were seen as having enough expertise to work more-or-less autonomously.

Areas that paraprofessionals needed further development in was: feedback; questioning; appropriate visual support for literacy materials; selection of materials; systematic record keeping; and how to work sensitively with culturally and linguistically diverse groups of students. In situations where paraprofessionals worked on their own with students, the research team felt that there should be an explicit programme for the regular observation of paraprofessional practice.

Training in student group dynamics and management would also be beneficial for many paraprofessionals. In small groups the researchers found that students were engaged and very keen to learn from paraprofessionals. Many enjoyed the extra attention and gained confidence in smaller withdrawal groups. Paraprofessionals were mostly not able to manage larger groups to promote effective learning.

CONCLUSION

The research indicates the clear need for ESOL paraprofessional professional development in order to provide more engaged and productive learning environments for the ELLs paraprofessionals work with. Moreover, with more explicit guidance for schools and teachers working with paraprofessionals the use of

paraprofessionals in schools could be made considerably more effective.

The ELA programme appears to address immediate skill deficits in language and literacy teaching for paraprofessionals working with ELLs. In addition, it promotes awareness raising and the training of ESOL and mainstream teachers to work effectively with paraprofessionals. However, the programme may not engage long term educational and/or professional aspirations paraprofessionals may have. To be fair it does not claim to. However, with a stated goal of being the first rung on the ladder of lifelong learning for many paraprofessionals a more explicit articulation into further training may be required in the future. An ongoing issue is gaining formal recognition/credentials for paraprofessional training and this also needs to be investigated.

While Part B of this research will consider the ongoing effects on practice of the ELA training (up to three months after the completion of the course), there is also a need to consider ways to embed and extend this very targeted professional development through networking, clusters, refresher courses and the like.

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LOOKING FORWARD, LOOKING BACK: FRAMING THE FUTURE FOR TEACHING FOR SOCIAL JUSTICE IN EARLY CHILDHOOD EDUCATION

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ABSTRACT

This paper outlines a participatory action research project that examined strategies to support teaching for social justice in the early years. Such a curriculum promotes inclusive and respectful lifelong learning. The success of this study, and others like it, will frame the future of teaching for social justice.

KEYWORDS

early childhood education - teaching for social justice - children's literature.

INTRODUCTION

The title of this paper borrows from Australian icon, Slim Dusty's (2000) hauntingly reflective recording: *Looking Forward, Looking Back*; and this theme pervades the paper. It is believed that this is what lifelong learning is all about: living purposefully in the present while looking forward to the future yet not losing sight of the successes and failures of the past. The future is built on what one learns from the past. Popkewitz (2006, p. 130) contends "the lifelong learner lives in the future" as an *unfinished cosmopolitan* (Popkewitz, 2004; 2006) in an information and learning society (Lawn, 2003). This *unfinished cosmopolitan* problem-solves and works collaboratively in communities (Popkewitz & Gustafson, 2002). However, the research project outlined in this paper is underpinned by the concern that young children often begin their lifelong learning journeys with negative perceptions of difference and diversity; and that these perceptions negatively impact on conceptions of social justice.

There is little doubt that throughout the preschool years children are not only becoming more conscious of their world but also developing their moral structures by absorbing the attitudes and values of their family, culture and society (Nixon & Aldwinkle, 1997). The preschool years are crucial in shaping cultural and racial understandings and are critical in forming attitudes towards difference and diversity (Mac Naughton, 2003a). However, prejudices form very early in life and studies have consistently revealed that children have the ability to distinguish among racial differences and to develop negative attitudes and prejudices towards certain groups of people from the age of three (Brown, 1998; Connolly, 2003; Dau, 2001; Harper & Bonnanno, 1993; Siraj-Blatchford, 1995; Swiniarski & Breitborde, 2003). Moreover,

by the time those children reach preschool age they have already become socially proficient in the ways that they appropriate and manipulate racist discourses (Connolly, 2003; Mundine & Giugni, 2006; Van Ausdale & Feagin, 2002).

Clearly today's preschoolers are tomorrow's parents, citizens, leaders and decision makers (Connolly, 2003; Swiniarski & Breitborde, 2003). Consequently, for a future characterised by justice, peace and understanding it is imperative that early childhood educators take responsibility for fostering a curriculum that challenges any form of prejudice and upholds equity, justice and human dignity through a curriculum that promotes teaching for social justice. However, many teachers struggle to find appropriate pedagogical strategies that work to support and promote such a curriculum (Derman-Sparks & Ramsey, 2006; Lingard, Mills & Hayes, 2000; Siraj-Blatchford & Clarke, 2000). This paper examines how in the United States and the United Kingdom this problem was successfully addressed through research involving primary and secondary teachers utilising children's literature to enhance teaching for social justice in their classrooms. It then examines my own doctoral study, conducted in Australia, which builds upon these successes by similarly incorporating the use of children's literature in preschool settings. This paper outlines the strategies that were successfully implemented by teachers involved in this collaborative study using children's literature to promote and support teaching for social justice. It is expected that teaching for social justice in the early years will form a foundation that will guide learners towards a lifelong valuing of difference, diversity, human dignity and justice.

LITERATURE REVIEW

Over the last few years there has been a growing research interest in teaching for social justice. Yet, Siraj-Blatchford and Clarke (2000, p.4) pointed out, with some concern, that most of the literature emanating from this research regarding race, gender, class and 'agency' in education had

mainly focused on older children or students in higher education. However, recent studies in the United States and the United Kingdom (Arizipe & Styles, 2003; Burns, 2004; Damico & Riddle, 2004; Galda & Beach, 2001; Leland, Harste & Huber, 2005; Mills, Stephens, O'Keefe & Waugh, 2004; Wolk, 2004) attest to the successful use of children's literature to initiate critical discussion regarding unjust practices and teach for social justice in the primary classroom. Whitmore, Martens, Goodman and Owocki (2005) synthesised critical lessons from research during the past several decades to share a transactional view of early literacy development. They reported that listening and responding to shared book experiences (storytime) allowed group members to push each other to think more critically and glean deeper understandings of the text. Whitmore et al. (2005) contend that critical texts, addressing social justice issues such as culture, race, gender, sexuality, ability and socioeconomic status, led children to search for answers to powerful questions about these issues. They found that by raising and resolving questions through critical social texts, children were presented with intellectual challenges that connected new ideas to their personal understandings of the world.

Leland et al. (2005) found that undertaking a critical approach to storytime heightened First-Graders' awareness of social justice issues and created a harmonious classroom atmosphere. Arizipe et al. (2003) examined British children's responses to the picture book *Lily Takes a Walk* and found that group discussions (usually teacher-led) helped readers work together to arrive at more complex interpretations of the pictorial text. The researchers were struck by the intellectual seriousness, as well as the enjoyment, with which the children viewed the book. These children were engrossed by the task and reacted strongly to the pictorial text, articulating not only likes and dislikes but ethical and moral perceptions.

Many researchers and academics (Kroll, 2002; Luke & Freebody, 1997; Machet, 2002; Saxby & Winch, 1991; Sheahan-Bright, 2002; Stephens, 1992) concur that texts represent cultural, social, political and economic ideologies, values and attitudes which represent certain readings of the world, thus socialising their readers. Indeed books can perpetuate prejudices (Siraj-Blatchford, 1995). Therefore it is of importance to guide the young reader in critically examining texts to identify social injustices implied as the norm. However, Wolk (2004) suggests that picture books have undergone a profound transformation over the past few years, with

authors respectfully exploring social justice issues such as race, culture, sexuality, gender, ethnicity, ability, socioeconomic status and social responsibility.

Looking back over the above research initiatives that address teaching for social justice, and the discussion on children's literature has informed my own research perspectives. Early childhood education sets the foundation for lifelong learning and participating productively in a multicultural society (Swinarski & Breitborde, 2003). Therefore, it is imperative that research initiatives explore pedagogical strategies that assist early childhood educators to implement a curriculum that teaches for social justice and will guide young children to value difference, diversity and human dignity for the sake of a productive, inclusive and respectful multicultural society. To this end this study examined storytime sessions in two Australian preschool settings over a six month period involving three to five year olds to investigate 'how children's literature may be used to heighten and encourage young children's awareness of, and sensitivities to social justice issues.'

THEORETICAL FRAMEWORK

Critical Theory

I chose critical theory to frame this research project because it required very deep reflection on, and 'peeling' away the many layers of this study: early childhood pedagogy; young children's awareness of, and sensitivities to social justice issues (previously mentioned in this paper); children's literature; and collaborative research. I believed critical theory could underpin this study and open up space for discussion because it "is particularly concerned with issues of power and justice and the ways that... matters of race, class, gender, sexuality, religion and other forces shape both educational institutions and individual consciousness" (Villaverde, Kincheloe & Helyar, 2006, p.319).

According to Peters, Olssen and Lankshear (2003) the term 'critical' (as it occurs in 'critical theory') was employed to refer to social theory that was authentically self-reflexive. It appears then, that critical theory has a twofold undertaking: it strives to be educative by guiding its advocates to explore conditions of possibility; and it strives to be emancipatory by providing potentially transformative outcomes for these advocates. Peters et al. (2003) propose other features of critical theory that also helped frame this study: critical theory has explanatory, normative, and practical dimensions – it must offer empirical accounts of a social condition; critical theory must aim toward change for the

better; and critical theory must provide an improved self-understanding of the social agents who desire transformation. Therefore critical theory assisted this research project firstly, by driving the research team to 'explore conditions of possibility' regarding how storytime could be utilised to teach for social justice; secondly, it had transformative outcomes by way of assisting the early childhood educators and the preschoolers involved in this study to view children's literature critically to examine social justice issues and transform their thinking; and thirdly, through empirical accounts of storytime sessions and self-reflection of the early childhood educators (as co-researchers) each preschool setting 'changed for the better' (discussed later in this paper).

This study believed in the assumptions underlying critical theory that human beings are able to act and think rationally, are capable of being self-reflexive and have the capacity to be self-determining. Not only does this assumption apply to adults but to young children as well. This research project was influenced by the sociology of childhood, the postmodern view of children and childhood, and the children's rights movement. From a sociological viewpoint, childhood is understood as a social construction and children are seen as competent social actors co-creating their reality (Corsaro, 1997; Lloyd-Smith & Tarr, 2000; Qvortrup, 1994). From the postmodern view, children are perceived as knowledgeable, competent and powerful members of society (Bruner, 1996; Dahlberg, Moss & Pence, 1999) capable of expressing and sharing their ideas, opinions and perspectives (Brooker, 2001; Swiniarski & Breitborde, 2003). The contemporary rights of the child movement stresses the importance of seriously and conscientiously upholding the child's right to express her/his own beliefs in an atmosphere of respect and acceptance (Freeman, 1998).

While it is believed that both educators of young children and young children themselves are capable, knowledgeable and have the capacity to be self-determining it is not always the case in research projects that their voices and ideas are heard or respected (Cooper & White, 2006; Kincheloe, 2003; Walsh, Tobin & Graue, 1991). In this study I wished to value their expert knowledge and ensure that their voices, opinions and ideas were heard, respected, trusted and acted upon. What underlines critical theory is the urge to give voice to those who are silenced (Freire, 1996).

A Participatory Worldview

Reason and Bradbury (2006) contend that a challenge to change our worldview is central to our times. Contemporary researchers need to address epistemological errors as well, built into our thinking by modernity, which have huge consequences for justice and ecological sustainability (Bateson 1972).

The positivist worldview, that has been considered the gold standard of research, sees science as disconnected from everyday life and the researcher as subject (who remains objective) in a world of separate objects. Mind and reality are divided. Knowledge is not connected to power. With Reason and Bradbury (2006, p.5) I argue that this "positivist worldview has outlived its usefulness". The new, emergent worldview is described as

systemic, holistic, relational, feminine, experiential, but its defining characteristic is that it is participatory: our world does not consist of separate things but of relationships which we co-author. We participate in our world, so that the 'reality' that we experience is a co-creation that involves the primal givenness of the cosmos and human feeling and construing. The participative metaphor is particularly apt for action research, because as we participate in creating our world we are already embodied and breathing beings who are necessarily acting – and this draws us to consider how to judge the quality of our acting. (Reason & Bradbury, 2006, p. 7).

A participatory worldview sees human beings (along with their ecology) as co-creating their world. To do this we must be situated and reflexive. We must be "explicit about the perspective from which knowledge is created, to see inquiry as a process of coming to know, serving the democratic, practical ethos of action research" (Reason & Bradbury, 2006, p. 7).

METHODOLOGY

The methodology of action research was chosen for this study on three considerations. Firstly, action research reflects a participatory worldview by which this study was framed. Secondly, action research is a collaborative inquiry method that values participant knowledge, skills and expertise and seeks to empower and give voice to those involved in the study and who will use the findings. Lastly, as Jones (2006) contends, action research engages an ethical commitment to improving society and making it more just; to improving ourselves so that we may become more conscious of our responsibility as members

of a democratic society; and ultimately to improving our lives together as we build community. The last two considerations are underpinned by critical theory.

Research Design

Participatory Action Research (PAR) is a relatively new and collaborative approach to action research (Torres, 2004). PAR signifies a position within qualitative research methods, an epistemology that aligns well with a participatory worldview and believes knowledge is embedded in social relationships and most influential when produced collaboratively through action (Fine et al., 2004). To this end the research team undertook the following cyclical, spiralling action research process: observation, reflection, collaboration/theory building, planning (based on observations), and implementation of planned action; re-observation, re-reflection, re-collaboration, re-planning, re-implementation and the cycle continued (Bell, 2000; Kemmis & McTaggart, 2005; Mac Naughton, 2001; Torres, 2004).

The application of PAR was appropriate for this study because it was a means that produced knowledge and improved practice through its collaborative nature: the direct involvement of participants in setting the schedule, data collection and analysis, and use of findings (Greenwood & Levin, 2005; Kemmis & McTaggart, 2005; Mac Naughton, 2001). Two preschools were involved in the study: Preschool A and Preschool B. The participants, considered co-researchers, from Preschool A were the preschool director, the preschool teacher and the preschool assistant. The co-researchers from Preschool B were the teacher/director and the assistant. We met weekly as a research team to examine videotaped footage of storytime sessions from both preschools to analyse if, how and why children's literature could assist as a strategy to implement a curriculum that would support and promote teaching for social justice. Fieldnotes and journal entries supported this analysis. Through observation on, and reflection and analysis of, what the teachers and children were saying and doing during storytime sessions, regarding such issues as race, gender, sexuality, culture, ethnicity, ability and socioeconomic status, picture books for the following week were chosen and a plan of action outlined.

PAR is influential to the social justice movement (Torres, 2004) and therefore quite fitting to this study, because its participative nature and transformative action allowed teachers and children to critically scrutinise their understandings of, and appreciation for, justice,

difference, diversity and human dignity. By actively and collectively shaping and reshaping these understandings through storytime sessions children became more sensitive to and aware of social justice issues, and teachers developed strategies for teaching for social justice.

RESULTS

Initially, the study began comparing children's responses to critical texts with their reactions to non-critical texts (picture books that attended to mundane issues). It was found that critical texts did encourage deeper, more reflective discussion within the preschool groups. However, the research team quickly realised that indeed all texts (including what were considered non-critical) had the potential for critical examination, thus becoming 'critical texts'. Often the children's responses to what the team considered a non-critical text produced such reflective discussion that both the children and teachers were driven to explore underlying social justice issues. As the action research progressed discussions following storytime became longer, more reflective, more articulate and more in depth (on the part of both teachers and children). Teachers utilised higher order and open-ended questions that encouraged insightful responses by the children. However, most importantly, the teachers found that carefully and purposefully **listening** to children's responses during storytime and clarifying, without judgment, what was being said drove the post storytime discussion. Children 'bounced off one another' during discussions to examine their world and the social justice issues that the stories highlighted. Reflective planning of storytime produced a superior learning experience for both teachers and children.

Strategies that were successfully tried and implemented during the action research included elevating storytime status from a transition activity to an important session of the day, allowing ample time for discussion and response (for example beginning the preschool day); reading and discussing critical texts that celebrated difference and diversity of race, ability, culture, gender, ethnicity, sexuality and socioeconomic status; reading and discussing texts that challenged the *status quo*; utilising open-ended and higher order questioning techniques; listening to children's responses and reflectively choosing (and allowing children to choose) texts that would consolidate the social justice issues that had been highlighted in previously read texts; revisiting whole texts or parts of texts for clarification; placing the social justice issues covered in the texts into the preschool context; responding to social justice

issues through action (for example encouraging the sharing of what the children have – clothes, toys – with those who go without; supporting inclusion in play situations at preschool); inviting people of diverse cultures to the preschool; encouraging artistic response to the texts read (for example re-enactment, drawing, construction, dramatic play, singing and dancing); reinforcing and consolidating social justice issues read in texts by displaying related posters and making available relevant jigsaws, dolls and games; involving and informing parents.

DISCUSSION

These findings are very encouraging as to the use of children's literature when implementing a curriculum that fosters teaching for social justice in early childhood settings. The children's responses towards the conclusion of the action research displayed a heightened awareness of and sensitivities to social justice issues. The preschoolers now recognised characters acting unjustly, something not noticed by the children at the beginning of the study.

The research team believes that the intervening pedagogical strategy of examining social justice issues through children's literature and employing the strategies mentioned above have been successful. The study has impacted positively on the development of preschoolers' understanding of and sensitivities to social justice issues and has assisted the educators with strategies for teaching for social justice. At the end of the school year, and one term after the action research had completed, teachers documented that the preschool groups involved in the study were more cohesive, harmonious and inclusive than they were before the study began.

This study will provide some answers for early childhood educators who are struggling to find strategies to support teaching for social justice. Such a curriculum should be of paramount importance in education. In direct opposition to an emphasis on academic standards, a national curriculum, and national assessment, Noddings (1995, p. 365) argues that "our main educational aim should be to encourage the growth of competent, caring, loving and lovable people All children must learn to care for other human beings." Many years ago Maxine Greene (1995) wrote the following which is still pertinent today:

We can bring warmth into places where young persons come together ... we can bring in the dialogues and laughter that threaten monologues and rigidity. And surely we can affirm and reaffirm the

principles that centre around belief in justice and freedom and respect for human rights... (Greene 1995, p. 43).

CONCLUSION

Looking back over this paper one can comprehend the imperative to begin teaching for social justice in the early years. However, it was highlighted that early childhood educators struggled to find suitable pedagogical strategies to assist them in promoting such a curriculum. The paper then explained that this study was framed by reflecting on the successes of contemporary research conducted overseas. It discussed that the study was underpinned by critical theory and a participatory worldview that supported the choice of the research design: PAR. The paper finally outlined strategies that have been 'put to the test' by early childhood educators who have found success in using children's literature to support and promote teaching for social justice.

The current study contributes to framing the future for teaching for social justice in the early years with the view to raising preschool children's positive recognition of difference and sensitivity to social justice issues. This in turn may lay solid foundations for lifelong learning based on respect and mutual accord, where all individuals may contribute to social, economic, cultural and political life 'irrespective of race, religion, colour, descent or national or ethnic origin' (Calma 2007, p.2).

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SUSTAINING LEARNING, LEARNING TO SUSTAIN: EDUCATING TO ENVISAGE SUSTAINABLE FUTURES

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ABSTRACT

The Education for Sustainability project is coming of age in higher education just as sustainability problems intensify. This paper considers some proposed higher education sustainability literacies. I explore these curriculum initiatives in the light of theorisations of lifelong learning which enable graduates to conceive, reflect on and lead sustainable futures.

KEYWORDS

Education for sustainability; graduate skills; change projects; teaching and learning; futures

INTRODUCTION

Sustainability as a concept and practice has reached its zenith in recent times, largely due to the urgent social and environment crises with which we are faced. The definition of the term sustainability which informs this paper and which I bring to the rubric of 'education for sustainability' (EfS) is adapted from the Brundtland⁷ definition which is unhelpfully broad and vague; this notion has been iterated and refined: 'sustainability means that as a society we are aware of the impact of our actions on others and on the planet, that we take responsibility for these actions and are transparent in our processes'.⁸ Whilst it may be argued that this sense of sustainability is still very wide ranging, its efficacy lies in the strength of its commitment to individual and collective reflection, responsibility and transparency, in relation to environmental, social and economic activities –the triple bottom line [TBL]⁹ (Goldie, Douglas, & Furnass, 2005). University graduates will be the vanguard of policy responses, management and solutions in such a changing world.

Education for sustainability (EfS) is arguably the most urgent change project confronting learning institutions in the contemporary moment. Sustainability is the concern which most presses on all corners of the global village, whether in terms of environmental crises such as climate

change and water supply, or through worsening poverty, social injustice and humanitarian incarnations, at home in the West and across the developing world. The UN adoption of a 'Decade for Education for Sustainable Development (ESD) 2005-2014' has encapsulated the recognition that learning and education are the primary sites by which we will integrate sustainability literacy and move forward, not just to a response, but to practices which ensure sustainable and equitable futures for all present and future citizens of earth. The term 'literacy' in this context refers to skills of engagement with and application of ideas, to inform problem solving and critical decision making. (Executive, 2005)

This paper considers some commonly offered hallmarks of the practice and philosophy of lifelong learning (LL) and identifies some – many – synergies and applications of the principles of LL to EfS, especially in relation to pedagogic practice in the learning spaces where we deliver these projects. I will explore the efficacy of LL as the mechanism by which EfS might be implemented, embedded and delivered in higher education offerings, in a range of ways. Firstly, I will discuss the pedagogical enablers provided by a LL framework. Secondly, I will consider certain values and ethos of LL as they reflect, challenge and overlap those of EfS. Finally, I will argue that LL also offers the EfS project a means to challenge its own internal blocks and obstacles, giving specific examples, through a grounded integration of curriculum and learning activities which exemplify the direction in which HE must move, for sustainability and for human well being.

PHILOSOPHICAL FRAMEWORK

As a scholar, I am constantly articulating and developing an eclectic framework of meaning and theory. I am persuaded by poststructuralist analysis, problematising as it does large social narratives which create binary oppositions and polarities. I have identified a similar emphasis in LL with its values of plural humanisms and

⁷ Coined by Gro Harlem Brundtland, Prime Minister of Norway, as Head of the World Commission on Environment and Development and considered in the book *Our Common Future* (Brundtland 1987).

⁸ Adapted from the definition of sustainability from Sustainable Living Festival, Federation Square, Melbourne February 2007

⁹ The notion of Triple Bottom Line measures of sustainability highlights the interconnectedness of social, environmental and economic activities.

celebration of diversity. Equally poststructuralism allows meanings to be constructed via individuals' own truths and experience and this is core to my understanding of student centred learning, which in turn is the only way to realise projects such as LL and EfS. This eclectic philosophical frame offers insights into the particular notion of LL which is used in this paper. I am persuaded by a commitment exemplified in the ideas of Guillen et al, Newell-Jones and Tammara (among others) which highlights the relationship between citizenship skills, social justice and transformative learning and the pedagogical practices of LL, such as student centred and inquiry based learning. (Guillen, Fontrodona, & Rodriguez-Sedano, 2007; Tammara, 2005) (Newell-Jones, 2007)

DISCUSSION

It has been argued by many theorists that EfS is most urgently 'incumbent' on academics (Kumar, Haapala, Rivera, & Hutchins, 2005); that is, on teachers and scholars in higher education institutions (HEI), especially in the West. While it might seem clear that academics are best positioned to inflect their courses and programs with appropriate and disciplinary-specific sustainability knowledges, this incumbency is still in its infancy, with much debate ongoing as to what EfS is, and how best to equip graduates with sustainability literacies. There is enormous disparity in terms of academic understanding of sustainability (Reid & Petocz, 2006), and even more angst among some disciplines as to whether sustainability applies to them and how they particularly have a role to play in the vision of a sustainable future. Given the oft-acknowledged importance of interdisciplinarity to the EfS project (Blattel-Mink & Kastenholz, 2005; Moore, 2005b), this delay is of deep concern.

The concept of LL has also been subject to intense scrutiny, especially in the light of an increasingly globalised knowledge economy. Issues of employability, graduate attributes and competitiveness in the global market place have inherent synergies with the values and foci of LL. (Etzkowitz & Leydesdorff, 1997) While the term 'lifelong learning' may not be explicitly engaged, the recognition that employability skills are dependent on deep understandings of citizenship and transferable skills demonstrates this synergy. (Barth, Godemann, Rieckmann, & Stoltenberg, 2007) The rise of postmodern theories with their concerns for the 'active subject', reflexivity, and permeable chaotic boundaries are implicated in this increasing focus in higher education (HE) on the application of

learned knowledge and the recognition of the validity of informal learning sites and outcomes (Usher & Edwards, 1994). That knowledge might be acquired and applied in highly diverse ways is gradually being recognised by many academics. However, the impetus to shift to new ways of fostering learning and to new constructs of teacher and student, exemplified by the constructivist "student (or learner) centred learning" movement, has proved more challenging; one might even describe it as sluggish. (Savin-Baden, 2004) (Anderson, 2008) Equally, the impacts of micro-economic reform in Western nations have shifted responsibility for managing change to individual workers as they respond to loss of sectors such as manufacturing and the likelihood of multiple forms of participation in the labour market in their lifetimes. These developments offer us compelling visions of the role in social justice and enfranchisement which may be facilitated by the focus LL skills provide through engaging complexity in inquiry based learning.

It is my argument that LL and EfS have parallel trajectories, and ideally these will be increasingly confluent, although the trajectory of EfS is not yet well enough established to guarantee this. Both seek to embed deep change in higher education curriculum and teaching practice. Both have a strong commitment to ongoing skills and attributes for graduates which permit them to transfer their capacities long after content knowledge has changed, offering a multi pronged point of entry, or hastening, for both projects. LL has long been associated with producing not just skilled workers but active citizens, whose graduate attributes allow them to continuously apply content learning in multiple contexts, not just in their graduate fields and professional lives but throughout a whole of person experience and life cycle (Tammara, 2005) LL has thrown into relief the vexed notion of capabilities or competencies; those oft-described 'soft skills' which I would argue *enable* the use and application of content in the first place. The EfS project, exemplified in the adoption of the UN Decade on Education for Sustainable Development, consistently argues for values, dispositions and sensibilities as crucial skills to solve sustainability problems and enable sustainable futures. (Adomssent, Godeman, Leicht, & Busch, 2006; Moore, 2005a)

I argue that LL, with its existing commitment and capacity to model student centred, transferable learning, is the obvious pathway to deeply embed EfS in HE curricula. So what might hold back EfS scholars from adopting such a model? The answer lies in the contradictory

practice even within EfS in HE, that continues to populate our institutional rooms with elephants; that LL, like EfS, requires transformative change, not just in what is taught in HE classes, but how it is taught and how the teacher-scholar is known and understood. Even with EfS, the time intensive, challenging change practices which are necessitated by a move to deep, student centred learning, are resisted even as they are recognised as an efficacious model for sustainability studies. There is little literature on this non-action and none of it is specific to EfS – yet. The EfS literature is often peppered with ‘parenthood’¹⁰, statements about desirable graduate skills and knowledge for sustainability (Gudz, 2004; Hall & Purchase, 2006; Kumar et al., 2005; Looi & al, 2005; Lourdel, Gondran, Laforest, & Brodhag, 2005; May, 2006); obviously, graduates should be able to communicate, critically analyse and make ethically informed decisions; these capabilities are hardly new and characterise a wide range of graduate attribute projects. Equally, the EfS project recognises the high desirability of LL values and competencies in graduates; ironically, there can be no way of delivering urgent sustainability skills and knowledge *without an explicit commitment to LL*. What is rare in the EfS debate is the identification of a meaningful starting point; a point of entry to commence the change project which enables the development and enhancement of these capabilities. Before we can expect them to be demonstrated by our graduates we must ensure our curricula, learning spaces and objects, *and* our teaching staff, are clear on, and committed to, those practices which enable such competency development. LL offers a road map to EfS, with an uncharacteristically clear set of practices and behaviours to enable the skills which build both projects’ tool kits. Thus far, we have a helpful collaboration with many goals in common.

Whilst it is obviously challenging and resource intense to set about rewriting courses and assessments to the learner-centred, problem-based model which is demanded by, and crucial to, LL, given the urgency of EfS we might assume we would be on our way. Certainly there are examples of such radical changes of practice, as exemplified by the University of British Columbia’s forestry faculty (Moore, Pagani, Quayle, & Robinson, 2005). The above authors who documented the UBC project entitled their paper ‘Recreating the university from within’, giving some indication of their sense of the enormity of change which is required in a move

to engage with EfS. The nature and expression of those changes embodies many of the values and ethos which I argue are integral to LL, including a commitment to a deep transformative model of tertiary learning and teaching, which enables mastery of skills and knowledge for students. Such an approach is often confronting, given the extent to which it challenges so many tropes of traditional university teaching models. In the case of UBC, a particular emphasis on the role of values and world views was the result – can we really engage sustainability, or the democratic tenets of LL, without an explicit engagement with politics and ideology? Many in both projects, myself included, would offer a resounding ‘no’. The UBC project saw the dramatic realization of such a conflict, with many staff resigning or moving out of their roles rather than engage the project led by a new Dean of the Faculty of Forestry. We see the difficulty many staff have in embracing or even valuing such models, and the enormity of the challenge facing staff who lead these projects.

The feedback from a number of learner centred sustainability programs is extremely pleasing – students engage in profoundly holistic ways with the changed curriculum and assessment; they recognise the role of experiential and informal learning in transforming them as learners, thus becoming self directed and self aware (Fenner, Ainger, Cruickshank, & Guthrie, 2005; Moore, Pagani, Quayle, & Robinson, 2005). These are the hallmarks of LL. Yet while some EfS practitioners have recognised the zeitgeist of these learning initiatives, the delivery of changed curriculum has been low. There is a strong literature on obstacles and blockers to the embedding of deep change for sustainability in HE (Down, 2006; Etzkowitz & Leydesdorff, 1997; Evans, 1999; Mathews, 2003; Moore, 2005b). What is clearly missing from the literature is any discussion of why individual EfS scholars, themselves highly critical of universities’ management, and other scholars who fail to recognise the urgent incumbency of EfS, have not accounted for their ongoing insistence on traditional, teacher-centred didactic models of learning and teaching, which are painfully at odds with every tenet of sustainability.

LL is also clearly the means by which graduate employability is best ensured; getting our graduates into organisations is crucial to many HE agendas, especially that of sustainability. The European Union has enshrined recognition of this causal relationship, calling for LL initiatives to be the core of a EU wide agreement on graduate skills (Guillen et al., 2007; Newell-Jones, 2007).

¹⁰ Often described as ‘motherhood’ statements. I prefer a gender neutral term.

As Kofman et al rightly argue, without LL skills in graduates, how can *organisational* learning be compelled (Kofman & Senge, 1993)? Individuals with the transferable skills for LL create, even lead and inspire, the learning outcomes for organisations which are fundamental to sustainability change projects. The kinds of changes we are visioning here involve enormous complexity, with heterogeneous teams required to bring a wide range of expert and shared knowledge to bear on the situated problem. Meaney (Meaney, 2006) outlines the kinds of challenges and pressures graduate workers will likely encounter in 'real world' settings, which universities are not easily able to approximate in their learning environs. It is my argument that the common constructs of 'academic' and 'student' generally engaged by HEI and their cultures is at odds with the very initiatives which will make LL, and therefore EfS, possible.

Representations in all contexts are 'discursively bound up with values and power'. (Usher & Edwards, 1994). Amongst the elephants in the academic room is the self-concept and understanding of the scholar teacher, and the means by which status in HEI is sought and maintained. I would argue that the values of LL – and hopefully of EfS – are diametrical to a tradition model of *Scholar-Sage*, who didactically imparts knowledge, with very little emphasis on the contexts in which that knowledge might be used. This is difficult terrain for the passionate scholar. On one hand, we enjoy the profound intellectual excitement of academic freedom, to determine what enquiries we will make, when, and how these might inform our teaching. This freedom is crucial to new knowledge and to ever-renewing visions of a better, more sustainable world. But equally this freedom is too often manifest in an imperious non-accountability. The annals of leadership experience in HEI offer accounts of academics' collective – but often passive - refusal to be governed on certain change projects (Savin-Baden, 2004) (Anderson, 2008); in my institution, this is something of a running joke. Traditional, even ancient notions, of academic freedom enable this non-compliance and none of us wish to dispose of the baby with the bathwater. But how to ensure we raise the baby in a responsible manner? The best, most ethical manifestations of academic freedom are as much contested as parenting models – and even more politically loaded. If we seek to reach consensus before implementing urgent projects such as LL or EfS, we will entirely miss the sustainability boat.

It is a similar epistemology around values and priorities in HE which allows us to interrogate resistances to LL. While rejection of EfS might be understood as based on reasonable (if incorrect!) assumptions about relevance and direct applicability to the disciplinary area (Reid & Petocz, 2006), dismissiveness of the student-centred learning (SCL) models which are synonymous with LL is harder to explain. Academic development units have been active in Australian universities for some years now; at my institution we have had variously Directors of Teaching Quality, PVCs learning and teaching, Deans of Academic Development, at both central level and in the faculty structures. All schools and departments have a chair – and a committee – dedicated to 'learning and teaching'. Considerably more attention is paid to student evaluation of courses (subjects), although this does not vary particularly across the mode of instruction. And still, the vast majority of courses are taught in a lecture-tutorial model, where at least an hour is spent in knowledge transfer via the lecturer (sage on stage). While our students may go to the cafeteria between classes, and become involved in campus organisations, the spaces for informal learning are few, especially given the contemporary work schedules of students, and such learning is rarely canvassed or built on in classes. Our course materials explain that one of the requirements of undergraduates is that they be 'active learners'; this is generally reduced to attendance at all classes and completion of all readings and assessments in a timely manner. Some courses include a reflective piece as assessment task; what is usually missing is the exposition of skills on how to meaningfully reflect and how the practice of reflection is indeed a central professional (and personal) skill. I am suggesting here that some SCL window dressing has made it a fair way into our offerings; what is missing is the meta-engagement with the 'how' and 'why' of these skills and their integration into content as well as other 'transferable' skill sets, such as problem solving, use of self in professional encounters, accountable decision making, transparency and so on.

It is in this relationship of informal learning, and the reflection and integration of it into structured HE (or at least the drawing on it in HE classes, which so engages and connects students) that I argue is a central challenge to academic identity and self construct. In HEI, value tends to be placed on high status, formal learning structures. Thus, we see one of the major blockers to change projects, in terms of LL, EfS and many other initiatives, especially where student-centred models are required.

Nicolaides has a vision for a sustainability component of LL, as exemplified in Agenda 21:

Strategies would be developed to integrate development and the environment as an important cross-cutting issue into all areas. General environmental education would be greatly enhanced and would henceforth be regarded as a vital integral part of every European citizen's upbringing. At university level it would be given a (Delors, 1996) strong interdisciplinary perspective and would serve as an essential element linking educational institutions with the community at large. ([34] EC (1992) Official Journal of the European Communities, C 151/02). (Nicolaides, 2006)

Environment educator David Orr, quoted by Nicolaides, sees an existing theme of LL – citizenship – in his desired EfS attribute, ‘stewardship’ of the earth and its concomitant, “an uncompromising commitment to life and its preservation.” Orr goes on to posit the importance of recognizing the interrelatedness of *all* disciplines and the integration of practical knowledge to promote sustainability. (Nicolaides, 2006)

Learning throughout life, argues Delors is key to accessing the twenty first century. LL, with its subtle postmodern narrative, disrupts previously traditional distinctions between early formal and continuing informal education, seeing them as stages on an overlapping, blurry continuum. (Delors, 1996) This model of LL supports the idea of a learning society, in which every situation is (and should be) necessarily a learning opportunity. (Guillen et al., 2007) In this way, societal learning, along with that of individuals, becomes normative, and built into social structures, but much more importantly, the society profoundly demonstrates a value for learning, for its own sake and for its role in social capital and all forms of equity and justice. A learning society will be characterised by social justice and human rights. It will be a space for the seeking of Maslow’s ‘self actualisation’ both for individuals and then, inevitably, as a collective. LL not only enables sustainability. It makes possible an ongoing, self perpetuating, space for social good.

Adherence to an ethic of lifelong learning enables all the objectives and priorities of SCL and EfS, exemplifying as it does the most integrated, meta-reflexive sense of the role and possibility of learning – and of all settings for learning. Learners are empowered through the recognition that they can gain insight to their learning in any context and thus the role – and

understanding- of formal settings changes. As Delors states,

..learning throughout life makes it possible to organise the various stages of education to provide a passage from one stage to another, and to diversify the paths through the [formal] system, while enhancing the value of each.... the concept of learning throughout life is the key that gives access to the 21st century. It goes beyond the traditional distinction between initial and continuing education. It links up with another concept often put forward, that of the learning society, in which everything affords an opportunity for learning and fulfilling one's potential" (Delors, 1996)

LL is arguably the ‘magic pudding’ (Lindsay, 1979) of education – and especially for HE, which must constantly find ways to respond to the skills needs of a global workforce and the criticisms of industry and other sectors regarding the skills of graduates. (Baines, 2006; Etzkowitz & Leydesdorff, 1997). I use this metaphor because it evokes to my mind my own experience with LL in the classroom; that if you are constantly asking students to reflect on *how* they learn, to bring explicit consciousness to the processes and practices in addition to the content, they inherently become better, more sophisticated, learners, who understand how to draw informal settings in, and to repeat approaches that have previously been successful for them. One of the most rewarding moments for me in the classroom has been the look of delight, the ‘light bulb’ moment, when students see that they can approximate a successful learning experience, mine it for its revelations and *become aware of how they learn*. This is a renewing feast of possibility; not only do students see that they have preferred ways of learning, but they confronted with their own active learning. An internal locus of ‘learning control’ is enabled. Experiences which are sadly still too plentiful in HE, of being passive recipients of the knowledge largesse of the ‘sage on stage’ are undermined and challenged. Equally we might engage the metaphors of ‘ripple effect’,¹¹ or rings on a pond. Students become more empowered learners, they have increasing sources of self respect and they are fully confronted with concepts of self agency and determination. The tantalising pleasure of successful learning often translates into a wish to share such experiences. In the words of my first year social work student, Jen, in an undergraduate sustainability course, ‘your

¹¹ I am grateful to my Program Director, Assoc Prof Ian Thomas, School of Global Studies, Social Science and Planning, for this notion.

assessment always made me feel a million bucks about myself, because you always made me see how I did it. *It was actually me.*”

CONCLUSION

Given the profoundly moving experience that LL values enable in the classroom, why would we not all embrace its tenets? HE is struggling with the demands of student-consumers, much less a fast changing and global knowledge economy, where government and industry are increasingly sophisticated players in a complex triple helix of expectation and response to graduate competencies in the contemporary moment (Etzkowitz & Leydesdorff, 1997; Looi & al, 2005). Many scholars continue, rather ironically, to use *their* lifelong approaches to educating undergraduates, clinging to content knowledge even where they are aware graduates are not well equipped to apply such knowledge.

Speculation over academics' capacity to foster and develop the perspectives – and subject positions – which enable SCL is fascinating, but it is less than helpful in fulfilling the urgent project of EfS. A seismic shift is still clearly needed for academics themselves to value and display the skills of LL, but it is that skill set on which EfS – and sustainability generally – are dependent. It is also ironic that the emerging focus on questions of sustainability and the role of HEI in moving toward it has in some ways strengthened the claims of LL. It is the increasingly insistent demands of employment sectors and governments that offer the other slice in the sandwich of pressure to change our practices, for better learning and teaching but also, unapologetically, for a much better, and sustainable, world.

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INCIDENTS FOR REFLECTION IN RESEARCH

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ABSTRACT

Reflection is at the heart of lifelong learning. It enhances professional practice, information use and research. This paper draws on my recent research study to demonstrate how reflection may underpin research processes and outcomes, with critical incidents providing a focus of reflection for both the participants and the researcher.

KEYWORDS

Information literacy – Reflection – Critical incidents – Learning - Research

INTRODUCTION

Reflection helps us make sense of our daily lives. It underpins lifelong learning, enhances professional practice and can play an important role in research. In this paper I draw on my current research experiences to illustrate the various ways in which reflection can support the development and implementation of a research study. I also explain how *critical incidents* can provide a reflective focus.

This paper is in three main parts. The first part outlines my study¹² and defines the key concepts *reflection* and *critical incidents*. The second part offers the researcher perspective, showing how reflection on my own experiences as an international student, and on my professional interactions with international students, influenced the development of the study. The third part offers the participant perspective: it presents an international student's reflective responses to his learning-related online information use, indicating their contribution to the study's findings and outcomes. In this way the paper both reflects the progress of my research and signals outcomes of potential interest to information literacy educators and educators.

Critical incidents and reflection

The study: Exploring international students' use of online information resources

My study explores international students' use of online information resources for learning. The literature (Baron & Strout-Dapaz, 2001; DiMartino & Zoe, 2000; McSwiney, 1995; Mehra & Bilal, 2007), and my experiences as an information professional/ information literacy educator, prompted me to ask the following

research question: *How are international students using online information resources for learning and what are their related information literacy learning needs?*

Seeking deeper understanding, I interviewed 26 international students at two Australian universities. The emergent findings offer a snapshot of learning-related uses of information in the dynamic, diverse Australian higher education environment.

Reflection is an essential element of my research approach. Reflecting on my experiences as learner and educator created the initial impetus for this study and guided its conceptualisation. In carrying out the study I encouraged participants to reflect on their experiences relating to assignment-related online information use. Reflecting on the participants' responses develops my understanding of their information literacy needs. The outcomes of this study include recommendations for developing reflective inclusive information literacy approaches. In this study critical incidents have provided a useful reflective focus, both for myself as researcher and educator, and for my international student participants. Data collection and analysis involved a modified critical incident technique (Flanagan 1954; Hughes in press).

Defining reflection and critical

Reflection can be beneficial in various ways, depending on the context and intended outcomes. It is associated with: reasoning (Dewey, 1933); experiential and reflective learning (Kolb, 1984; Moon, 2004); teaching (Brookfield, 1995), professional practice (Schön, 1987); information literacy (Bruce, 1997; Bruce, in press).

Reflection is a deeply personal activity that enables us to see familiar ideas through different lenses, reassess our existing knowledge and make sense of particular experiences. As Moon (2004, p. 82) explains: "Reflection is an activity that we apply to more complex issues ... the content of reflection is largely what we know already. It is often a process of re-organizing

¹² Current doctoral study: International students using online information resources for learning

knowledge and emotional orientations in order to achieve further insights". Reflection is contextualised by an individual's thoughts, feelings, existing knowledge and previous experiences. Moon (2004, p. 82) offers the following 'common-sense definition' of reflection:

Reflection is a form of mental processing – like a form of thinking – that we may use to fulfil a purpose or to achieve some anticipated outcome or we may simply 'be reflective' and then an outcome can be unexpected. Reflection is applied to relatively complicated, ill-structured ideas for which there is not an obvious solution and is largely based on the further processing of knowledge and understanding and possibly emotions that we already possess.

Critical has multiple meanings, depending on context. In my study – and in this paper – *critical* is used in two different senses. First, it implies *thoughtful consideration and evaluation*, as in *critical thinking*. Second it implies *significant*, as in *critical incident*, where *critical incident* is understood as a significant moment or happening that contributes knowledge or understanding about a particular activity (Hughes, in press).

Researcher perspectives

My research is motivated by personal and professional experiences over many years. **On a personal level**, two periods as a student at Spanish universities provided insight into the experiences of students living and studying outside their home country. I knew that it could be exciting, challenging, tiring...

A particular *critical incident* that I experienced as a newly arrived student in Barcelona frequently comes to mind and provides a point of reflection for me as educator and researcher. The incident relates to a time when I 'hid' among an animated group of Spanish students for an hour, reading a book with pretended nonchalance. I had no idea what was happening, since everyone was speaking so fast that I could only catch a few words here and there. My panic and embarrassment were acute when lecture notes were handed around and I realised that I had impertinently sat through a tutorial apparently immersed in a novel. This event had lasting impact on my learning – due to my perceived 'loss of face', I skipped all further classes for that subject.

On a professional level, reflecting on my own experiences as an international student contributed to my practice as an information literacy educator. I was aware of the inter-

personal and linguistic challenges that individual international students might encounter, but also I was concerned about the generally limited or ill-informed attention paid to international students' varied learning needs. There was an apparent tendency among researchers and educators to generalise international student characteristics and experiences, with an emphasis on differences and difficulties. From my own professional experience this did not seem to ring true, since many of the international students I knew were motivated, successful learners who drew on a wealth of life experiences and could communicate effectively in several languages.

All of this prompted me to reflect on:

- *What do we really know about the information literacy experiences and learning needs of international students?* Not just what they do, but how they think, feel.
- *Are their experiences always as grim as the literature suggests?*
- On a more complex pedagogical level, I wondered:
- *How to respond to culturally and linguistically-related challenges encountered by learners, without resorting to stereotypical assumptions or deficit model teaching?*
- *How to equitably foster the information literacy and learning potential of all learners in a dynamic and diverse higher education environment?*

On a research level, reflection on the experiences and concerns described above led me to undertake the research study, with a view to enhancing my professional knowledge and practice as information literacy educator. In the course of this project, other critical incidents – associated with conversations, readings, 'ah-ha' moments in the shower – have provided food for reflection and contributed to the study's development. In some cases, incidents have had an instant impact, but often their full value has emerged over time, in connection with other incidents. The following example illustrates the way in which a flash of realisation during a presentation, combined with further critical incidents, caused me to revise my research approach.

During a research methodology class I was presenting my project plan to fellow higher degree research students - elaborating my perceptions of the difficulties encountered by international students and the need for 'us' to help 'them' overcome their information use barriers. Glancing around the room mid-presentation, I realised that almost half the

audience were probably high achieving international students. Significantly, I immediately felt compelled to modify the tone and focus of my presentation and to recast the unintentionally patronising approach I was adopting.

Reflecting on this incident - as well as on my ongoing professional interactions with international students - fostered a gradual appreciation of the individuality of international students, their varied attributes and experiences, their strengths as well as challenges, our commonalities as learners and researchers. This motivated me to search for language and concepts that more accurately conveyed the varied, complex nature of international student experiences. The solution emerged as a result of two separate but critically significant events. First, an informal conversation with research colleagues pointed me toward the work of John Biggs (2003), which redresses negative 'deficit' assumptions about international students' learning. Second, Tracy Bretag's (2004) presentation at the third International Lifelong Learning Conference introduced me to the expression *CALD* (*culturally and linguistically diverse*) students.

Why were these happenings significant? Due to my reflective seeking at that time, I was receptive to the notions presented by Biggs and Bretag. Importantly they offered me new ways of considering the experiences of international students. In particular, Biggs (2003) suggested the concept of *inclusiveness* that now underpins my research and teaching approach. Bretag's focus on *diversity* seemed to resonate with *inclusiveness*. My discovery of the term *diverse* freed me from implications of 'otherness' inherent in terms such as *inter-cultural* and *multicultural*.

PARTICIPANT PERSPECTIVES

Gathering critical incidents

The international students participated in semi-structured interviews, during which they described a recent assignment that had involved the use of online information resources. Assignments were considered to be *critical incidents*, on the basis that assignments tend to represent significant events in students' lives (Hughes, in press). In addition to factual accounts of students' information use, I sought reflective responses that indicated their thoughts and feelings.

First, seeking details about their actual online information use I asked each student:

- **What** online information resources did you use / not use for this assignment?
- **How** did you use them?
- **What** did you find hard /easy about using these online resources?

To elicit more reflective responses I followed each question by asking 'why?'

Encouraging the students to take a broader view, I then invited them to both reflect back over the whole experience and to think ahead, drawing on the previous experience to suggest future improvements:

- **Overall** was using online information resources for this assignment a positive experience /not a positive experience? **Why?**
- **What could be done** to make online information use easier for international students? **Why?**

Thus the interviews provided real-life, personal insight into students' use of online information resources. The students' responses also indicate particular information literacy learning needs. These aspects are illustrated by the following excerpts from one student's interview.

Tom reflects on his use of online information resources

Tom (pseudonym) is a university teacher from Vietnam, who had just completed a one-year Masters degree in education at an Australian university. During the sixty minute interview Tom described his use of online information resources for a particular assignment – his nominated 'critical incident'. He enriched the 'what' and 'how' details, by situating them in the broader context of his transition to life and study in Australia. The thoughts and feelings he shared not only provide some insight into the information literacy learning experiences and needs of international students, but also offer suggestions for improvement. The interview illustrates Tom's progression in the course of one academic year, from being unfamiliar with online resources to feeling unable to research without them. [Tom's words are in italics].

Reflecting back on his early days at an Australian university, Tom vividly recalled the confusion he felt and his growing sense of unpreparedness for study here:

It seemed to me that I dropped from another planet to the earth.

Tom remarked that he found the learning and teaching approaches in Australia quite different to the 'passive learning' he was used to. He stated that whereas students in Australia were expected to independently find their own information, in Vietnam:

I cannot show myself, I cannot express my ideas ... The teacher is the information, the teacher is the thing - we need to study and he just pour information.

For his previous study and research Tom had used textbooks and Vietnamese-language journals, but he was unfamiliar with online databases and resources. Consequently he encountered challenges in accessing course materials:

We were required to read a lot of literature, both in the CMD [course materials database] and in current journals and in the books. Almost impossible for me because I don't know how to enter the library online, checking for books and journal database ... [It was] quite different and when I manage to enter the CMD about the unit I didn't know how to print it out. I tried the printing machine, but I didn't know that I need a card.

Tom shared his thoughts and feelings about this experience as follows:

I think at that time I felt a little bit disappointed ... I think [the university] is not very well prepared for international student with such a background like me, because, may be in their assumption that every student know how to access internet, know how to access online - but we didn't, we didn't. We came from ... a very poor country and very disadvantaged. We didn't have such information and we are not prepared for something like that. On the first two weeks I just wanted to go back to Vietnam, I didn't want to study at [this university] because it is so discouraging.

Significantly, Tom revealed that at first he 'did not dare' to seek help from university staff, due to personal uncertainties and perceived 'language barrier'. Then by chance he encountered an IT support person who was also Vietnamese. This meeting represents another critical incident for Tom. On a practical level, he gained the assistance he needed to tackle the university's online systems. On a personal level, the acceptance and encouraging response of the IT support person enabled Tom to approach other teaching, library and administration staff and to participate in various voluntary and course-related information literacy classes. In this way he gradually developed the confidence and understanding to embrace his learning opportunities:

A part of the course, what they call information literacy ... they show us how to use the [database] for information online. How to show academic and scholarly

journal - they went through step by step, what we needed to - very basic step - and very helpful ... I love that ... I can learn how to search for the material and the literature ... It was a very big step.

Tom subsequently developed a quite sophisticated research approach:

Usually I plan my assignment in advance, in different parts and I try to search information and to complete the ideas, and that's why sometimes I change my plan many times because different information in international mean different things, different perspectives ... Usually I choose research article with some findings with imperial (sic) evidence ... and other very theoretical one ... with different resources of information and references ... I don't choose opinion article which give someone opinion into three pages.

By the time of the interview he felt 'very confident' about using online resources and considered that:

online resources and studying is inseparable (sic) ... it should be hand in hand. It should be together because it enable student to have a better chance to get a lot of information, update information in a very fast convenient way

After Tom had told his story, I asked him consider ways in which online resources and the ways they are taught to international students might be improved. Thus, by drawing on his own experience he was able to offer several constructive suggestions that included conducting 'student needs analysis':

We need to know the background of student, what they know and what they don't know and what they want to know about the skills, online skills and offer them help before they start. I think that some of international students are not - I mean they can be very competent in studying and they have the ability to pursue the course - but some of them might drop the course or the unit, or they got not very good results because of the online area, the skills ...

He emphasised the importance of lecturers being alert to the needs of individual students and being prepared to reach out supportively to them:

On the first day of the tutorial or the workshop, if the lecturer can identify the problem from the student ... if each lecturer is aware of how difficult the student can encounter with the access to online resources. Because I think that some time, with some of the lecturers they take things for granted, in their assumption every

student know that, but really some international student didn't know that. We came from a different background and we really need help so if the teacher ... can identify the needs from international student and maybe they denote that there are [some who are] reluctant to talk - so if the lecturer ... on the first day ... are more friendly, they talk to some international student about online - can you do this? can you know how to do this?

Tom also suggested that face-to-face classes are preferable to online tutorials for students with limited online experience:

I think the best is a tutorial or a workshop - courses are more helpful because ... the student have problems with the online skills - if we offer them courses on line there is no way they can access the online courses. So face to face courses more helpful.

In conclusion - looking ahead - Tom commented that:

I feel a little bit worried when I come back to Vietnam ... I cannot imagine how can I do research without such good information and database - so online resources offer me a very good chance to do research - and also it offer me a lot of difficulties to do research without it.

Reflecting on Tom's reflection

The previous section touches on portions of just one of twenty six interviews. From a **research perspective**, Tom's reflective comments provide a rich data source. Once analysed and combined with other participants' responses, they contribute to the study's findings and so enrich our understanding about the varied challenges that international students may encounter in their use of online information resources. Thus Tom's comments not only provide valuable insight into his individual experience, but also they become part of a multifaceted picture of international students' information use.

From a **pedagogical perspective**, Tom's comments help identify particular information literacy learning needs. They suggest the need for greater support for international students in their transition to life and study in Australia. However, Tom's resilient, learning-focused approach confirms Biggs's (2003) view of the inappropriateness of deficit-model responses to international students' perceived difficulties. The study's findings support the development of strategies that respond to the identified learning needs.

The bigger picture emerging from my study reveals the diversity of international students' personal attributes and the influences that can impact on their transition to life and study outside their home country. Significantly, it seems that some information use-related challenges experienced by international students are similar to those also present among the wider culturally diverse student population. In particular, there is evidence of a fairly general *information literacy imbalance* (Hughes, Bruce and Edwards, 2007) between students' often well developed digital capabilities and less developed critical approaches to using information. Consequently, the outcomes of my study include recommendations for developing *inclusive reflective approaches to information literacy learning*, that integrate notions of educational *inclusivity* (Biggs, 2003), *reflective learning* (Moon, 2004) and holistic *information literacy* approaches (Bruce, 1997; Bruce, in press). The recommendations also recognise the potential of critical incidents as reflective stimuli for learning and teaching (Brookfield, 1995; Tripp, 1993) and their application to information literacy learning.

CONCLUSION

This paper has highlighted the potential of reflection and critical incidents for research. The example of my current doctoral study has shown how reflection may underpin research processes and outcomes, with critical incidents providing a focus of reflection for both the participants and the researcher. I have described how critical incidents that I experienced as learner and researcher prompted me to undertake the study. Similarly, the student participants' reflective responses to assignment-related critical incidents provided the basis for data collection and analysis. Looking ahead, reflection and critical incidents are also integrated into the proposed outcomes of the study: the findings offer a basis for developing inclusive reflective approaches to information literacy learning.

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FLEXIBLE LEARNING AND ELECTRONICS TRADES TRAINING: A CASE STUDY

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ABSTRACT

This paper presents a case study to investigate flexible delivery and self-paced learning strategies within a complex electronics trades training environment. The paper discusses the advantages to adult learners using this approach, the risks of such approaches and an analysis of the levels of the adult learners under such conditions.

KEYWORDS

Flexible learning – self direction – vocational education – electronics – blended learning

INTRODUCTION

The electronics industry and its associated consumer market are continually experiencing technological evolution and thus creating an ever increasing demand for new equipment servicing skills and alternative learning approaches. Increasing numbers of learners in the electronics industry who are pursuing their lifelong learning goals are electing, where available, to enroll in flexible delivery study options at trade and engineering levels in the electronics sectors. Workplace demands have contributed to the need for training using flexible learning approaches. Often this has placed difficulties for the lifelong learner, as many of these courses are only available as mainstream courses from large public sector Registered Training Organizations (RTOs) which have time scheduling patterns which are incompatible with changing industry work-practices, for example, the movement from permanent to part time and casual workers where the RTOs need to provide accessible programs for all workers (Richardson & Liu, 2008).

This paper presents the findings of a small practitioner research project conducted in an electronics trades section of a large public sector RTO in New South Wales (NSW) during 2007, that offered flexible delivery programs. The purpose of the project was to investigate: (1) if flexible learning methods would be feasible for Electronic Trade subjects, (2) what levels of self direction and study ability was present in the current cohort of learners and how this self direction affected lifelong learning and (3) what facilities, resources and levels of skills would be required by learners and staff. The information and findings collected during the observation period are explained in a narrative format.

THE RESEARCH PROBLEM

The Strategy 2000 Report (ANTA, 2001), describes that Information, Communication and Technology (ICT) based learning systems are continuing to improve. However, anecdotal evidence exists where incorporating ICT based flexible learning methods in trades areas imply that on-line supported learning methods have a consistently significant failure rate unless participants were highly self-directed and self reliant.

Within vocational Electronics Trades course learning environments, little formal research has been undertaken, but anecdotal evidence suggests that the level of self-direction and self-motivation amongst some learners had been traditionally low through inherited poor learning practices. Brookfield (1986) reports from American data that two thirds of adults are self directed learners, however, Nesbit, Leech & Foley (2004) describe that the major challenge of an adult educator is to promote self-directed learning by providing an environment that will allow it to develop. Such findings are also confirmed by Choy and Delahaye (2000) who conclude that TAFE learners aged between 17 – 24 years prefer mostly surface learning practices and exhibit low levels of self-directed learning.

Because such study and learning patterns are not supportive of life-long learning principles (Adams, 2007) and principles of adult learning (Knowles, 1990), concerns have been raised by teachers that self-paced learning methods may perhaps be unsuitable for the current and future intake of Electronic Trades students and also that different methods of learning approaches will be needed.

Adams (2007) describes the concept of “learner engagement” as being, in part, as the need for the learner to have control over their own learner experiences, understand the learning process and to have empowerment in the process. Knowles (1990) posits that self-directed learning is a core adult learning principle and questions whether it

should be a goal of educators to assist in the development of adult self directed learners. Personal observations and teaching experiences have concluded that flexible learning delivery may be difficult for teachers without a thorough understanding of self directed learners, consistent with the findings of Foley (1992). Additionally, there is a need for learners to have access to a diverse range of learning resources.

Flexible learning strategies appear to be often restricted to a narrow range of subjects for the purpose of making learning easier to manage. As electronic theory subject content continues to increase in diversity and complexity, past learners tended to exhibit increasing levels of drift from andragogy to pedagogy in learning patterns. These issues were overwhelmingly present in the electronic trades training environment and therefore warranted further investigation.

RESEARCH QUESTIONS:

This research project attempted to address the following research questions:

1. What levels of self-direction and motivation are exhibited by learners?
2. What learning difficulties did the learners experience?
3. Does flexible learning engage students in knowledge sharing
4. How effectively did the learners utilise the available resources?
5. What are the benefits of flexible learning in electronics trades?
6. What are the disadvantages of flexible learning in electronic trades?

METHODOLOGY

Qualitative approaches were adopted to gather data in order to answer the research questions of this study. These approaches included: learning journals, direct observations, observer diaries and notes, interviews, reflection sessions and learning reviews with the subjects and teaching personnel involved in the research project and personal reflections.

Population and Sample

The population under investigation was the cohort of learners undertaking flexible study options. The learners ranged in age between 18 - 60 years old and were enrolled to either gain additional qualifications, or to complete outstanding subjects in order to achieve either the Certificate III in Electronic Trades or other advanced Electronics based qualifications. The majority of the population is employed full time in the electrical / electronics industry. The sample consisted of 15 learners.

Learner Environment

For the duration of the study, the learning environment was designed and resourced as much as possible to be representative of a well equipped flexible delivery centre. The resources available to students were: a computer lab with web-based learning resources, multiple electronic labs for the purpose of allowing students to have access to electronic lab testing equipment in order to perform learning tasks, learning portfolios and resources, study guides, self-assessment exercises and student assessment guides and access to subject specialist teachers.

Observation Process and Method

Observational information gathered during the study was collated, and then themes from the data related to the research questions were identified. The themes across each method were then compiled to produce a final set of comprehensive results. A summary of these results are presented in the next section.

RESULTS

The following findings represent the main themes that emerged from the data.

Learner Self-Direction and Motivation

From the very beginning of the project it became apparent that the majority of the learners exhibited low abilities of self-direction and lacked self-confidence and needed to be trained in such skills.

If study resources were given to the cohort earlier than needed, they tended to misplace them or began to exhibit disjointed learning patterns such as jumping too far ahead in learning and missing the underpinning information. Learners often displayed a tendency to begin other activities which looked more interesting and thus failing to study or complete pre-requisite tasks or underpinning information.

When the initial learning contracts and task completion timelines were negotiated two main difficulties emerged. Firstly, learners who lacked confidence were not sure if they would be able to complete the subject modules. Secondly, over-confident learners' were of the opinion that they could complete course modules well ahead of time and could therefore study at an accelerated rate. Such misplaced confidence was often caused by a lack of knowledge of the subject contents and a lack of knowledge of what was expected of them.

As learners levels of skills increased, so did their confidence and degree of self-direction. As learner confidence rose so did their desire and ability to learn. Learners learned best when the

subject material was made highly relevant to their job. The greatest rate of competency achievement was when learners were able to relate learning tasks to their work activities or to knowledge they had gained in previous sessions. Learners which were originally reluctant to attempt complex tasks began to exhibit desires for real challenges and preferred to try difficult tasks in preference to more simple learning tasks and showed a strong preference to undertake theory - and practical skill tests for self-assessment purposes. As learner confidence increased, learners became self-reliant and exhibited increasing signs of abilities in self-direction. Care was taken to ensure that learners were being trained to the required industry skill levels and weren't simply passing competency assessments by rote learning. Most of the students had found review or trial tests to be of considerable advantage, because it permitted self-evaluation of their knowledge and skill levels, as well allowing self-reflection and rapid feedback as to their successes and possible problem areas.

Allowing the learners to perform skills or competency tests using workplace equipment increased learner confidence and gave a more accurate assessment of real learner skills because learner performance was not degraded by having to perform skills tests using equipment they are not familiar with. Such practices also gave confirmation of repeatable skills in different environments (RTO or work-place) and permitted a more accurate benchmarking to current industry standards.

Learning Difficulties

Most of the learners in the sample cohort tended to become frustrated or confused when: failing to understand course material or subject requirements, having insufficient experience in the use of test equipment; and when at times suffering a lack of clear purpose and direction. It was observed that all of the students attending flexible delivery sessions needed guidance and advice on regular occasions, when it came to understanding electronic theory principles and practical circuit construction and problem solving requirements. Learners regularly showed indications of needing clarification of basic English language terms, even though they were born in Australia and English was the language spoken at home.

Additionally, all of the learners revealed during reflection sessions that they had very few opportunities to study at home or during work breaks due to other commitments. Technicians or apprentices with a high workplace demand

displayed highly irregular attendance patterns. The most significant effect of these absences was increased teacher dependence.

Use of Learning Resources

Only two learners from the cohort were observed to show a regular tendency to use textbooks. The majority of learners preferred to use workbooks, lesson handouts and web-based learning resources and preferred to study only what they needed for assigned tasks. Observation at the initial stages of flexible learning sessions indicated that the majority of learners (n=13) showed a strong preference for surface or extrinsic learning. Very few of the learners (n=2) showed any signs of meta-learning styles. The majority of adult learners preferred to use workbooks or web-based material containing weekly lessons, lab sessions and lesson supplements, showed a preference for performance centered, problem solving learning or latent learning styles as opposed to subject learning practices. Fidishun, (2006) tends to confirm that adult learners prefer task or problem learning as opposed to purely theory centered learning. The majority of learners in the test group also exhibited a greater desire to learn if they were given reasons as to why they needed to learn, even if they could not see any particular relevance in the tasks they needed to complete. Giving learners achievable goals at the right time encouraged them to achieve the next set of goals.

The learning portfolios used provided an effective means of guiding students in how they are to progress, which goal achievement were needed and what if any difficulties they encountered. They also assisted the learners when undertaking individual review or reflection sessions. The only difficulty encountered with learning portfolios was the occasional need to remind learners to make entries after each learning session.

Knowledge sharing between students

The provision of a room reserved for discussion and information sharing gave learners the opportunity to practice knowledge sharing, discuss circuit wiring problems and theories, problems or related items of interest. Encouraging such discussions also permitted learners to gain clues from other learners' when they encountered problems they could solve themselves, if given relatively minor assistance from others. Observation showed that more experienced learners passed on to less experienced learners some of their practical and theory knowledge. The practice of peer knowledge sharing was not restricted to age. Younger learners exchanged knowledge with

older learners and older learners shared their knowledge and experiences in areas of their own expertise. Discussions taking place included teachers only, when students had questions they could not solve themselves or when they needed a clarification of concepts or theories. The practice of knowledge and skill sharing in many instances helped students to progress past their zones of proximal development, through interaction with more capable peers, (Wertsch, 1991 cited in Woolfolk, 2004). While such characteristics are mostly observed in much younger learners, adult learners, especially those in the sample cohort exhibited similar proximal zones.

Benefits of flexible Learning

The following benefits were noted during the observation session.

- Learners could study at their preferred or suitable learning pace.
- Learners can be assessed using flexible approaches, meaning they can be assessed where and when they are ready for it, in other words take charge of their learning.
- Assessments can be done at learners' workplace or using workplace equipment.
- Learners can undertake skills challenge or skills assessment tests at any time to determine readiness for final assessment.
- Learning portfolios provided a more accurate tracking of learners' progress, problem areas.
- Learners became more self-reliant and as a result obtain a greater level of laboratory skills and knowledge, because they are required to learn by themselves.
- As learner confidence improved greater signs of adult learning life-long practices emerged, such as willingness to reflect, share knowledge, and the display of learning patterns based on andragogy.
- Using a one person per equipment approach students work on a one to one basis. This practice has led to a much higher practical skill level.
- Students did share knowledge in areas of common interest, if they are given the opportunity to do so.
- Learners did achieve a higher than expected pass rate.

Disadvantages of flexible learning

The following risks emerged during the observation:

- Unless learners are self-directed or learn how to become self-directed they are unlikely to succeed.
- Learners need constant direction and reminders as to when to sit for tests, which tasks are due, what to study and at times be given encouragement.
- Limited time is available for questions or assistance.
- A wide diversity of equipment and room resources needs to be made available.
- Time is required to build a data base of sufficient learning and self-evaluation resources.
- Demands on course supervisors are greater than a normal teaching load and wide subject diversity encountered in some flexible learning sessions require broad levels of subject knowledge on the part of the supervisor.

DISCUSSION

The overall results suggest there was a need for subject material to be improved to suit the flexible modes of delivery from what is employed in face to face learning environments. The learning resources need to be more practical or work task oriented and prepared well ahead of time. This outcome demonstrates that diligent and comprehensive planning for delivery is required in flexible modes. This is consistent with Rowntree (1996) who posits that developers writing and planning flexible delivery courses may need as much as 50 hours of preparation and research time, for each hour of delivery time.

Flexible delivery learning supervisors will need to be able to adapt to flexible learning strategies and develop competence in these strategies. It is apparent that a greater understanding of how adults cope with flexible learning and how to keep them motivated when learning becomes difficult is required. This point reinforces the need for a teacher/ trainer to have a strong understanding of adult learning principles.

Teachers and trainers of adults engaged in lifelong learning may perhaps be more successful if they include methods of Knowles assumptions of andragogy principles in order encourage their potential of growth in learning within adult education (St. Clair, 2002). If learners are given incentives, purpose and direction and reasons for learning then learners are more likely to demonstrate their skills and willingness to learn (Griggs, 2006). Additionally, learners need to be

time and course managed, given appropriate information and provided with consistent timely feedback.

Learners undertaking flexible study pathways need above average self-management and good learning practices in order for them to gain appropriate survival skills, prior to commencing module or competency qualification processes. Unless learners are given or have learned such skills their ability to succeed with flexible learning as well as life-long learning will be impeded. Teachers need to aware that learners even if born in Australia may encounter problems with basic English language terms.

CONCLUSION

This small research project revealed a greater insight as to how learners are affected in flexible learning environments and what levels of self-confidence and self-management skills they exhibit. Additionally, it reported on the risks and benefits of flexible learning and suggested possible improvements, in the context of an electronics trades training environment. The research also revealed unexpected findings in learning styles exhibited by learners, such as a reluctance to use textbooks and a lack of desire for meta-learning. The research project was restricted to a single group using an observation period duration of a single semester. While current conclusions are that flexible learning options can be a viable option, providing learners are given sufficient study skills, it is advised that further research is needed in order to gain clearer insights into adult learning methods and the underlying causes of low levels of self-direction and poor study methods, a preference for surface learning and lack of desires to use text books.

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DOES INFORMATION SUPPORT AND OTHER TYPES OF SUPPORT INCREASE WOMEN'S CONFIDENCE IN THEIR ROLES AS MOTHER?

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ABSTRACT

Undertaking maternal roles is a learnt behaviour. This study explored whether types of support had any positive effects on women's confidence in undertaking their roles. Results showed that the support including information did not have any positive effects. Learning the roles may be influenced by various factors beyond giving information.

KEY WORDS:

adult learning, maternal roles, psychological health

INTRODUCTION

Undertaking maternal roles is a learnt behaviour. They are also expected to undertake roles as mothers to meet the needs of their baby. In general, a woman's ability to undertake her roles as a mother is a learned process. A woman can set her learning goals and needs (Mezirow, 1981). She also can develop strategies to acquire information. She uses feedback from her supporters to validate her competence performance and confidence to undertake difficult tasks in order to look after her newborn child (Hung & Chung, 2001; Tarkka, 2003). Information is also provided to assist women to develop these tasks.

Women who had good sources of information and other social support had positive physical and psychological health outcomes. It is expected that women will gain knowledge which later helps them develop positive behaviours. Generally, nurses and midwives provide information to women throughout their pregnancy and after delivery process. A home visit by a nurse or midwife after the birth of her child provides an opportunity to assess the woman's needs. Information and other types of support can be given and assist women to develop her mother roles. The woman also may attend formal health education sessions in order to gain information and develop skills to care for her newborn infants. We explore whether information received would translate to knowledge and help women developed maternal skills to care for the baby. However, other sources of support provided to women are their partner, mother, female relatives, friends and other health professionals. One or more types of support including material, information, appraisal or emotional support can be given by each of their supporters (Fram, 2003). The lifelong learning implications for women from these formal and informal supports on their ability to undertake their mother roles were not known.

THEORETICAL FRAMEWORK

Learning opportunities to develop new tasks can occur at all ages and in a range of settings and contexts. They can happen at work and at home. In order to learn an individual develop their own interpretation and ways to determining which knowledge are valuable and credible. Many will develop their methods of inquiry and learning needs. They also explore and identify methods of gaining information including educational intervention suitable to them (Mezirow, 1981).

The learnt behaviours of mother roles can be measured by few tools. These include the Home Observation for Measurement of the Environment (HOME) Inventory (Kendrick et al., 2000) and reported confidence in caring for their child by postpartum women (Stanwick, Moffat, Robitaille, Edmond, & Dok, 1982). The major difficulty of using the HOME inventory was limited due to resources required to visit a woman's home. The tool by Stanwick and others (1982) allowed information to be collected by an interview with limited resources. This could be used as a proxy of the woman's ability to undertake her maternal roles and was applied in this study.

In order to learn and undertake new skills, women need to have relatively good psychological and physical health (Hung & Chung 2001; Tarkka, 2003). Information provided might not be translated to practices if women are depressed or anxious. This study took this psychological and physical health into account when assessing the effect of their social support, including information, on their confidence to undertake their roles as a mother. The major aim of this study was to explore the relationship between postpartum women's social support on their confidence to conduct their learned behaviours, mother roles.

METHODOLOGY

This cross sectional study was conducted at two major referral Queensland regional hospitals. Postpartum women who gave birth at the study

hospitals between August and December 2001 were invited to participate. Two hundred and ten women were approached and 172 (81.9%) agreed to participate. Later they were telephone-interviewed within four weeks after the hospital discharge. More than 80% of the women (143 women of 172, 83.1%) were contacted after 4-10 telephone calls and took part in the study.

The age of study women ranged from 15 years old to 40 years old with the average age of 28 years. More than 50% of the women completed high school education, 40% lived in a family where the main income earners were manual workers and 40% lived in a family where the main income earners were professional workers. Eighty seven per cent of the women were married or in a de facto relationship, 13% had private health insurance and 28% were first time mothers. Details of the women's social and demographic characteristics are reported elsewhere (Jirojwong, Rossi, Walker, & Ritchie, 2005).

The independent variable was a woman's reported confidence to care for her baby as their learnt behaviours (see Table 1). This confidence of undertaking mother roles was measured by the woman's confidence to care for her baby relating to bathing, feeding, dealing with the baby's waking up at night; the baby's crying non-stop for more than one hour and having fever.

Studies by Cronenwett (1985) and Norbeck et al. (1981) were referred to when designing social support questions. Two categories of social support: objective indicators and subjective indicators were assessed. The objective indicators consisted of the number of supporters and the sources of supports (partner, parents or parents in law, relatives, friends, and health professional) and frequency of contact. The subjective indicator was the types of support: material, information, appraisal and emotional supports. Frequency of contact between the women and supporters was assessed as it could

reinforce the outcomes of such support. Maternal psychological health was assessed by using the standardized Edinburgh postpartum depression scale (Eberhard-Gran et al. 2001). The possible score ranged from zero (no depression) to 30 (high depression). Physical health was measured by selected four question items of the standard SF 36 which assessed an individual's ability to function, based on physical health (Medical Outcome Trust, 1992). The study was approved by the Central Queensland University Human Research Ethics Committee and the ethics committees of both hospitals.

Descriptive and analytical data analysis methods (Bollen, 1989) were used. A Structural Equation Model was used to assess a hypothesised effect of a woman's number of supporters who provide different types of support and the woman's confidence in undertaking her roles as a mother, taking physical health and psychological health into consideration.

RESULTS

Confidence in Mother Roles The majority of women were very confident in bathing ($n = 110$, 76.9%), feeding ($n = 99$, 69.1%) and dealing with the infant waking up at night ($n = 84$, 58.7%). Only 27 women (18.9%) were very confident in taking care of their babies' non-stop crying for more than one hour and 39 women (27.3%) were very confident in taking care of their babies when they had fever. Easy tasks were easy to learn and supported by the data. Details of the confidence to do mother roles are shown in Table 1.

Social Support The number of supporters provided to 143 women ranged from 0 to 10, with the average of 3.8 supporters. Gender, age, frequency of contact, methods of contact and types of support provided by the supporters are shown in Table 2. It should be noted that the women had less contact with people who provided information compared to other types of support.

Table 1. Women's Reported Levels of Confidence in Taking Care of the Baby's Needs

Need (rank from the least difficult to the most difficult to care for using experts' opinion)	Number ^a (Percent)				
	Very confident (score = 4)	Confident (score = 3)	Not sure (score = 2)	Little confident (score = 1)	Not confident (score = 0)
Bathing	110 (76.9)	33 (23.1)	-	-	-
Feeding	99 (69.1)	43 (30.1)	-	1 (0.7)	-
Dealing with the baby waking up at night	84 (58.7)	55 (38.5)	-	4 (2.8)	-
Non-stop crying for more than one hr	27 (18.9)	72 (50.3)	23 (16.1)	16 (11.2)	5 (3.5)
Having fever	39 (27.3)	65 (45.5)	7 (4.9)	27 (18.9)	5 (3.5)

a Total number may not be equal to 143 due to missing data.

Table 2. Characteristics of the Women's Supporters

Relationship	Partners	Parents or parent in-law	Relative	Friend	Health professional
	Number (Percentage)				
Number of supporters (total = 576 persons) Mean = 3.8, Mode = 4	114	168	98	113	83
Gender of supporters					
Male	114 (100.0)	31 (18.5)	15 (15.3)	17 (13.8)	11 (13.3)
Female	0 (0.0)	137 (81.5)	83 (84.7)	106 (86.2)	72 (86.7)
Age (year)					
Mean (Standard Deviation)	30.6 (6.8)	50.9 (21.5)	30.0 (14.0)	30.0 (11.1)	36.4 (8.3)
Average frequency of contact					
Daily	111 (97.4)	67 (40.0)	21 (21.4)	8 (7.1)	1 (1.2)
2-4 time/week	3 (2.6)	61 (36.3)	36 (36.7)	50 (44.2)	21 (25.3)
Once a week	-	25 (14.9)	26 (26.5)	32 (28.3)	17 (20.5)
Once a month	-	3 (1.8)	11 (11.2)	12 (10.6)	2 (2.4)
Less than once a month	-	2 (1.2)	4 (4.1)	9 (8.0)	37 (44.6)
Methods of contact					
Face to face	113 (99.1)	124 (73.8)	69 (70.4)	85 (75.2)	68 (81.9)
Telephone	1 (0.9)	44 (26.2)	25 (25.5)	27 (23.9)	11 (13.2)
Type of support					
Instrument	43 (37.7)	108 (64.3)	41 (41.8)	37 (32.7)	-
Information	5 (4.4)	41 (24.4)	32 (32.7)	39 (34.5)	68 (81.9)
Appraisal	52 (45.6)	90 (53.6)	43 (43.9)	43 (38.0)	32 (38.6)
Emotional	42 (36.8)	41 (24.4)	21 (21.4)	27 (23.9)	13 (15.7)

Physical health and psychological health Only 35 women (24.5%) said that their general health was excellent. The percentages of women who reported that their health was very good or good were 32.9 and 33.6, respectively. The results of psychological health using the Edinburgh postpartum depression scale indicated that 12 (8.4%) women had a score of 13 or higher (Cox, Holden, & Sagovsky, 1987) which suggested that they probably had a postpartum depression.

Relationship between social support and confidence in mother roles The steps described by Bollen (1989) were used in the Structural Equation Model (SEM) analysis. The number of people who provided each type of support was computed. An indicator was formulated by combining both the subjective and objective information of social support. Each variable was later entered in the model as an observed variable measuring social support.

The score of each question which explored the woman's reported confidence in caring for her infant's needs was entered in the SEM. A similar step was also applied for the score of each question item of the standardized Edinburgh Postpartum depression scale, the measurement of psychological health. Figure 1 shows the results

of an initial path parallel model. A hypothesised relationship was tested based on a path model using the AMOS 4.0 program. The unidirectional arrows in the diagrams represent the direction of the structural relations hypothesized to exist between the social support, physical health, psychological health and the confidence in mother roles. The two headed arrow signifies unanalyzed association between social support, physical health and psychological health. For the constructed measurement model, all factor loadings were freed, question items were allowed to load on only one construct, and variables derived from the observed variables were allowed to correlate. The parsimonious normed fit index (PNFI) and the Akaike information criterion (AIC) were used as a guide to decide whether the model fitted well.

Steps suggested by Bollen (1989) were used to further develop the second model shown in Figure 2. In summary, the parallel nested model was used to test the hypothesized relationship. The observed variables which were excluded from the second model were the number of supporters who provide information to the women and the two question items of the women's reported confidence in caring for a baby with high fever and the women's reported

confidence in caring for a baby who cried non-stop for more than one hour. The sources of information were largely health professionals (see Table 2) and caring for both baby's conditions were perceived as relatively difficult for the mothers to respond. The Edinburgh Postpartum depression scale was modified using the correlational parceling method. The ten questions were grouped into three groups. The average score of the questions of each group was

entered in the second model (see Figure 2). The overall chi-square value of the revised model, the parallel nested model was not significantly different to the "perfect model", $\chi^2 = 71.82$, $df = 62$, $p = .18$. The minimum statistical significance level of .05 ($\alpha = .05$) was used as a criterion for rejecting a null hypothesis.

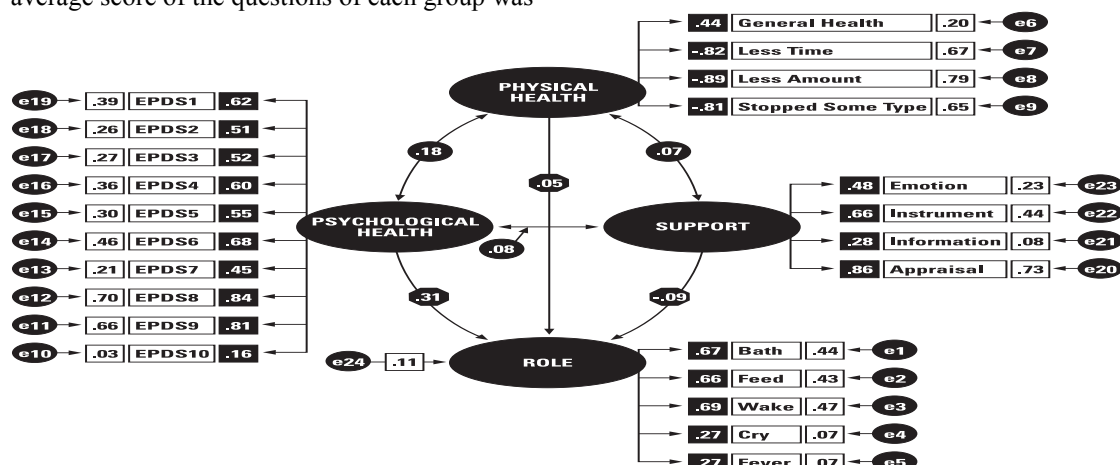


Figure 1. An initial path parallel model to explore relationships between the woman's confidence to undertake her roles as a mother, social support, psychological health and physical health (EPDS = Edinburgh Postpartum Depression Scale, item number, e= error. The presentation is modified from Bollen (1989) for the ease of reading).

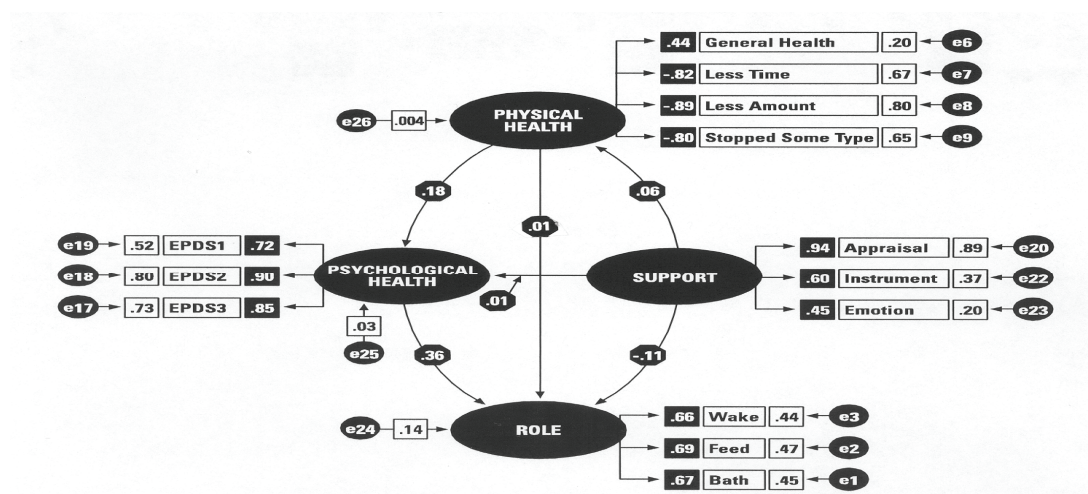


Figure 2. A parallel nested model to explore relationships between the woman's confidence to undertake her roles as a mother, social support, psychological health and physical health (EPDS = Parcelling of the Edinburgh Postpartum Depression Scale, e = error. The presentation is modified from Bollen (1989) for the ease of reading)

Results in Figure 2 showed that the women's psychological health was significantly related to their confidence in their roles as mothers. No relationship was found between the women's

confidence in their roles as mother and the other two variables: the women's physical health and the women's perceived numbers of supporters who provided material, appraisal and emotional supports.

DISCUSSION

Learning new skills and gaining confidence the developed skills may required not only information but also observation and reinforcement for a period. Women perceived that health professionals were the main source of information. However, they had less contact

compared to other supporters. They might not be able to validate what you learnt or developed to care for the baby. Other sources of information such as books, video and internet were not explored in this study. Fram (2003) also suggested that information support should be considered as a separate category from other types of support when investigating the relationship between social supports to parenting skills.

There are few reasons that can explain the lack of positive effects of social support on the women's confidence in undertaking their roles as mothers. Firstly, a supporter may provide support that a recipient did not need and therefore, the support is not valued. Secondly, a recipient might be selective in her perception of different types of support from each supporter. For example, a health care professional was not expected to provide emotional support. Although the health care professional did provide emotional support, it might not be reported by the women. Thirdly, this study did not explore whether there was any conflict between supports from one group to another. Fourthly, the study women were from a range of social and demographic backgrounds and this might be related to the non-positive outcomes of the social support on their confidence to undertake their paternal roles. Results from the study conducted by Fram (2003) suggested that supporters of women living in a cohesive community might have different expectations to the women's roles in caring for their infants compared to the supporters of women living in a non-cohesive community. However, these characteristics were not explored in this study.

Poor psychological health can range from anxiety, stress to postpartum depression. Psychological health is an important determinant of the women's confidence in their roles as mother. Women with depression may not be ready to learn and develop new skills (Fram, 2003). The study by Tarkka (2003) finds that women are less likely to successfully breast feed their babies and are unmotivated to establish good interaction with their infants. These factors may in part explain this study's results that showed a significant relationship between psychological health and the women's confidence in undertaking their roles as mother.

As mentioned earlier, developing tasks and confidence as a mother is one of adult learning. A major aim of the lifelong learning, particularly among adults, is to assist the learners to adapt in changing social conditions. Learning facts or gaining knowledge from text may be less important than acquiring learning skills that can be applied in different contexts (Herd, 1993).

Postpartum women need to be aware about how to develop and modify their skills so that they can respond to the needs of their baby. Some babies' needs are more difficult to respond compared to other needs. Women need to have self-direction and critical thinking to appropriately undertake steps including making enquiries, gaining information or trialing their tasks as a mother. Anxiety, stress or poor psychological health may not facilitate women to have this effective lifelong learning process.

Early and regular engagement in the learning of maternal tasks since pregnancy (or younger) may later help increase women's confidence in caring for their baby or responding to the baby's needs. This adult lifelong learning requires time and probably reinforcement from others including health professionals to ensure that they are able to develop their skills and perform their tasks as a mother. Their learning styles, specific learning needs, sources of information and critical thinking have to be considered for future lifelong learning of postpartum women.

The study results also indicated that learning new skills and gaining confidence to undertake a task probably was not related to women's physical fitness or their physical health. Information alone does not help women to develop skills. Women are more likely to undertake their maternal roles, regardless of how well or unwell their physical health is.

CONCLUSION

Psychological health may be related to readiness to learn. The results of this study indicate that nurses and midwives who are the major source of information do not have any positive effect on the women's learnt behaviours of their roles as mothers. The frequency of contact between the source of information and the recipient may limit the impact on skill development. The women perceived health professionals as the major providers of information to them while their partners or parents, parents in law, relatives and friends provided material, appraisal and emotional support. The women reported their confidence in caring for their newborn babies' needs if the needs were relatively easy to respond to. Women's needs and their readiness to learn have to be explored prior to providing information.

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PLES: FRAMING ONE FUTURE FOR LIFELONG LEARNING, E-LEARNING AND UNIVERSITIES

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ABSTRACT

Personal Learning Environments are a new conceptualisation of how technology might support lifelong learning, one that questions many of the assumptions of existing institutional practice. This paper develops a series of enablers that can aid a university to better frame its future use of PLEs.

KEYWORDS

Personal Learning Environments -- PLEs --
Lifelong learning -- e-learning 2.0

INTRODUCTION

E-learning has been defined as the use of information and communications technology to support and enhance learning and teaching (OECD, 2005). Much current practice of e-learning within universities fits into Dron's (2006) industrial age of e-learning which typically includes the implementation of enterprise course management systems with an emphasis on scalability, consistency and cost savings. Even with significant institutional investments the growth of e-learning through this industrial age has been incremental and has not fundamentally challenged the face-to-face classroom (OECD, 2005). The world-view embedded in the design of course management systems is that of the course offering and the institution (Dron, 2006), a view that is not particularly supportive of lifelong learning.

Over recent years, factors such as the knowledge-based economy, learning society and the rise of information technology has given rise to a consensus that lifelong learning is not only a norm, but also a culture and attitude (Grace 2006). One view of lifelong learning suggests that learning does not end with formal higher education, instead universities must help in the development of lifelong learners and in the provisioning of lifelong learning opportunities (Grace, 2006). This paper aims to help universities better perform this dual role through the adoption of an approach to e-learning better suited to lifelong learning. It is recognised, however, that as the historical context has changed, the meaning of lifelong learning has shifted in response (Luzcky, 2006) and that recently it has been guided by far narrower discourses (Atwell, 2007).

The limitations of e-learning version 1.0, Dron's (2006) industrial e-learning age, the subsequent negative experiences of students and academic

staff, and the development of alternate technologies has contributed to the nature of e-learning changing enough to deserve a new name e-learning v2.0 (Downes, 2005). The concept of a personal learning environment (PLE) is one of a number of emerging approaches strongly associated with e-learning 2.0. E-learning 2.0 also questions the role of the course as the main abstraction, places greater emphasis on informal learning, on placing control of learning into the hands of the learners, a collapse of the distinction between teacher and student and somewhat more prosaically the use of social networking software such as blogs and wikis. E-learning 2.0 can be seen as a change in paradigm or discourse around e-learning as it questions many of the assumptions that underpin e-learning 1.0.

Different discourses may contain a distinctive set of rules and procedures which govern what counts as meaningful or senseless, true or false, normal or abnormal (Davis & Sumara, 2006). Consequently, a change in paradigm, especially for an organization, is typically not a simple process. The complexity and limited success of e-learning 1.0 suggests that a paradigm change to e-learning 2.0 may be even more difficult. As is suggested by the slow uptake of e-learning 2.0 and the almost non-existent support from traditional institutions (Downes, 2005). Salmon (2005), talking primarily of e-learning 1.0, identifies a clear need for research that includes the development of theories and models of change related to human intervention and sustainability of e-learning within universities. It is suggested that there is a similar, if not greater, need around e-learning 2.0.

Gregor (2006) identifies five types of theory including design theory, a type of theory aimed at making a contribution of "how to do something". Design theory is part of an approach to research also known as constructive research, design science or design-based research (Gregor, 2006) that appears in a number of disciplines including education (Reigeluth, 1999). Gregor and Jones (2007) identify eight separate components of a design theory including

constructs, justificatory knowledge and principles of implementation. This paper is the first step in design-based research project that seeks to develop a design theory to support the adoption and use of PLEs within a university setting.

This paper begins by defining the key construct of such a design theory through a brief discussion of how a PLE might be conceptualised. It then draws on the Ps framework to examine major factors associated with the implementation of e-learning in universities. This justificatory knowledge informs the development of a series of enablers that are proposed as principles of implementation that will help encourage the effective adoption and use of PLEs within a university setting. In addition to forming a component of a design theory, these enablers also highlight just how much of a paradigm change PLEs represent from existing institutional e-learning practice.

What is a PLE?

It has, for quite sometime, been recognised that if universities were to genuinely promote lifelong learning opportunities then it would be essential for them to provide systems that support learner autonomy and self-regulation (Knowles 1978; Candy 1991). The PLE concept recognises that learning is an on-going process, will not be provided by a single learning provider, and that the individual has a role in organising their learning (Atwell, 2007). There remains a diversity of interpretations of what a PLE may actually encompass (Johnson & Liber, 2008). However, there is general agreement that a PLE is distributed, social and learner-centred.

PLEs can be seen as systems of technologies that help learners take control of and manage their own learning by supporting them to: set their own learning goals; manage their learning; manage both content and process; communicate with others in the process of learning; and thereby achieve learning goals. A PLE is generally not seen as a particular technology, system or product, nor is it likely that any two PLEs will be similar. The personal nature of a PLE implies that each learner's PLE will be made up of their own unique collection of practices and technologies. A PLE does not have to necessarily make use of information and communications technology. However, the PLE label is typically associated with the application of Web 2.0 and related technologies (Johnson & Liber, 2008).

Rather than focus on the PLE as a product or collection of technologies, Johnson & Liber (2008) position PLEs as an intervention strategy

into the relationship between technology, learner engagement and institutional function within an increasingly complex organisational setting. PLEs are not an application of, instead they represent a new approach to the use of, technologies for learning (Atwell, 2007). PLEs can be seen as an approach that questions many of the existing institutional assumptions around learning. This includes: the separation of formal and informal learning, that learning occurs within a single institution, the requirement on the institution to provide and support all technologies and the nature of the distinction between teacher and student.

How might a university adopt and adapt PLEs?

Having briefly examined what a PLE might be, the remainder of this paper seeks to develop a series of enablers that can aid a university to encourage widespread adoption of PLEs within its practice of learning and teaching. These enablers are developed through the use of the Ps Framework (Jones, 2007). The Ps framework is an example of type 1 theory, an analysis theory, as identified by Gregor (2006) and, as such, seeks to provide a description of the factors to be considered when making decisions around the implementation of e-learning. Due to space limitations this paper will consider a subset of the P factors including: purpose, product, place, people, pedagogy and process. Each of the following sections covers one or more of the Ps, briefly discusses one perspective of the issues surrounding those Ps in the context of adopting PLEs within a university and uses this discussion to identify enablers to that may aid a university adopting PLEs.

Product

When considering how to implement e-learning to achieve a given purpose a common institutional response is to invest time in the evaluation and selection of a particular product. Most universities commenced their industrial age of e-learning with the selection of a particular learning management system. The influence and widespread use of this approach is seen in the number of evaluation guidelines and system comparisons available on the Internet and the research literature. The appropriateness of this approach for industrial e-learning within a university is not without question (Jones & Muldoon, 2007). The nature of e-learning 2.0 and PLEs further decreases the appropriateness of this approach

A PLE is a collection of tools and systems, not a single monolithic system. It is a collection of tools and systems chosen by each individual

learner, rather than the university. More often than not these tools and systems will not be owned or maintained by the university. Instead PLEs rely heavily on recognised standards and web services (Atwell, 2007). This is, in part, driven by the view that in recent years the technology available to individuals has been outstripping the functionality and usability of the centralised provision of technology by institutions (Johnson & Liber, 2008).

Enabler 1. An emphasis on using recognised standards to support the broadest selection of user selected tools, systems and services rather than an institutional focus on supporting only those products selected by the institution.

Place

The societal and institutional context within which a project takes place is an essential consideration of any project. Organisational culture, particularly in the form of promotion and tenure policies which recognise the significance of teaching developments, is one of the key factors that may distinguish between successful and unsuccessful innovation projects (Cummings, Phillips, Tilbrook, & Lowe, 2005). The laws, legislation and educational policy within a particular place have to assist inclusive lifelong learning, if it is to be a reality. Top-down support for projects involving significant change is a known critical success factor. The use of PLEs entail a paradigm shift in the locus of control of technology and responsibility for learning away from the institution to the learner.

Enabler 2. Strong support and active participation of senior management in creating an appropriate context for the adoption of PLEs.

Development and support for PLEs entail a radical shift in how educational technology is used, how an organisation operates and its underlying ethos of education (Atwell, 2007). This adds further complexity to the already complex institutional context created by universities continuing to respond to a diversity of external forces including funding cuts, massification of higher education, changing student demographics and many others (Cummings et al., 2005). This complexity, impatience with results and a range of other factors can lead to leadership who attempt to impose order on a complex problem before any meaningful, useful patterns emerge (Snowden & Boone, 2007).

Enabler 3. Leadership that adopt a more experimental mode of management. A management approach that recognises the importance of safe-fail (as opposed to fail-safe) design and whom allow useful patterns of PLE usage and practice to emerge over a period of time.

The introduction of innovations to a university is disruptive to the existing system. The complexity of innovation compels change at multiple levels that is culturally situated within the context of the institution, and brings considerable consequences to the organisation's operation (Samarawickrema & Stacey, 2007). It is possible, perhaps likely, that two institutions using the same specific diffusion strategies might achieve very different results (Nichols, to appear). No two universities are exactly the same, nor will the usage of PLEs by its staff and students result in exactly similar outcomes.

Enabler 4. A diffusion strategy that recognises that the unique problems and desires of the host institution are more important than any theoretical ideal, best practice or latest fad (which does raise some questions about using PLEs in the first place).

A fundamental aspect of effective learning in higher education is understanding the conception of knowledge in one's discipline (Wingate, 2007). Learning and teaching within disciplines is influenced by each discipline having their own culture, language and practices (Harpe & Radloff, 2006). Successful efforts to support learning and teaching will acknowledge these differences in culture and engage the disciplines and individual academics in their own unique ways of knowing (Harpe & Radloff, 2006). The schools within an institution, often the organisational home of the disciplines, are a significant power within an institution (Nichols, to appear).

Enabler 5. Active support for different disciplinary cultures to develop applications of PLEs which best recognise and engage with that cultures conceptualisation of learning and teaching.

People

The type of independent, lifelong learning typically embodied in a move towards the use of PLEs requires a range of significant and complex changes on the part of students and staff. The nature and capabilities of the people within a

university will play a pivotal role in the emergence of interesting, useful and successful applications of PLEs.

The adoption of PLEs and lifelong or student centred learning approaches theoretically best suited to PLEs expect students to switch from their previous learning experience where learning was planned, monitored and evaluated for them by their teachers to an approach in which they take on this role for large portions of their learning. There are concerns that many students may struggle to make this change without external assistance (Longworth, 2002).

Enabler 6. Special attention needs to be paid to providing scaffolding that aids in the transition expected of students in using PLEs without creating too many constraints.

While students may require more support to make this transition, they may not get this support from teaching staff who are often reluctant to teach more than subject knowledge (Wingate, 2007). Teaching staff are often suspicious of any changes to traditional pedagogies and are often expected to adopt innovations whilst under significant workload. Workload issues, time-commitment, IT self-efficacy, lack of effective staff development and drawn-out implementation are some general barriers to e-learning adoption by staff (Nichols, to appear).

Pedagogy

Industrial e-learning practice, in the form of learning management systems, has had a much greater impact on administrative services than it has on pedagogy (OECD, 2005).

Too much of what passes for staff development and other organisational activities intended to encourage innovation around learning and teaching takes a developer focus. This type of approach fails due to a simplistic understanding of innovation diffusion. It expects an objectively better approach will automatically replace existing practice. In contrast, adopter-based approaches focus on the social context in which the innovation will be used, on the potential adopters and the human, social and interpersonal aspects of innovation diffusion (Surry & Farquhar, 1997).

An approach that recognises that there is no single solution that applies for every teacher, course or view of teaching. Instead, there is recognition that innovative and quality teaching can only be achieved through the use of a nuanced understanding of the complex relationships between technology, content and

pedagogy to develop appropriate context-specific strategies (Mishra & Koehler, 2006). An approach which takes a pro-innovation bias towards the sorts of pedagogy and use of PLEs that are deemed to be "good" runs the risk of separating members of the social system into a superior innovators group and the inferior recalcitrants group (McMaster & Wastell, 2005). Such an outcome limits adoption and is a symptom of a failure to engage with and respond appropriately to the local context. Learning to teach in new ways requires more than applying new theoretical knowledge disseminated using formal modes, it requires a culture in which innovative teaching is expected and rewarded, where teams or departments replace isolated individuals as the unit of change, strategies which involve collaboration and reflection and support through encouragement, recognition and resources (Johnston, 1996).

Enabler 7. A diffusion process that follows an on-going, dynamic process aimed at encouraging strategies that are appropriate and specific to the institutional context and its needs. A process that aims to help create a more appropriate environment in which to encourage pedagogical innovation.

Purpose and Process

Many, if not most, universities follow, or at least profess to follow, a purpose driven approach to setting strategic directions. In such an approach a small group of people, typically senior management, identify the purpose a specific project intends to achieve. Subsequently, the design process employed by the organization is targeted at achieving that purpose. Any approach or strategy that is not seen to achieve that purpose is seen as inefficient and removed. It has been argued that this approach applied to e-learning within universities significantly limits flexibility and choice for learners and learning (Jones & Muldoon, 2007).

The adoption of PLEs entails a radical shift in how educational technology is used, in organisational function and in the ethos of education (Atwell, 2007). A move towards lifelong learning represents a significant paradigm shift (Longworth, 2002). There is a need for further exploration of the changing discourses around lifelong and student-centred learning to enable a more critical understanding of the possible futures and provide greater agency for staff and students in determining their directions (Luzecykj, 2006).

As an alternative to the traditional, top-down, purpose driven approach Cummings et al (2005) suggest a middle-out process based on a problem solving approach with a problem-oriented focus and using a collaborative and negotiated culture that places emphasis on functional and operational support. It has been suggested by others that modifying the attributes of a typical top-down approach with insights from alternate world views offers significant benefits and solutions to the problems of traditional purpose-driven design (Jones & Muldoon, 2007).

Enabler 8. A process that replaces or supplements many of the attributes of traditional top-down, purpose driven design towards one with a greater focus on being driven by the collaboratively, negotiated needs and issues of the participants in the local context.

CONCLUSIONS

The adoption and use of Personal Learning Environments (PLEs) within universities embodies a paradigm shift that rejects much of the current institutional practice of e-learning. The introduction of PLEs is a complex intervention into an already complex context and consequently is not a context where familiar top-down, command and control management practices are likely to be effective (Snowden & Boone, 2007). The enablers proposed in this paper represent an initial, but still incomplete, set of suggestions to assist an institution make this change. Taken together this initial set of enablers offers something greater than the sum of its parts. These enablers will be tested, modified and expanded upon over the next few years through an on-going process of design-based research that seeks to better understand this complex intervention.

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HOW SUCCESSES OF COLLABORATIVE SCHOOL PARTNERSHIPS OFFER HOPE FOR FRAMING COLLEGIAL SCHOOL LEADERSHIPS OF THE FUTURE

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ABSTRACT

Current conceptualisation of school principalship characterises the principal as the person in the 'hot seat' and 'lonely at the top' (Crowther et al. 2000). The present research found that the establishment of school partnerships in NSW led to attractive principalship and offered hope for improved and more attractive school leadership.

KEY WORDS

Celebrating successes – collaborative school partnerships – framing better principalship – educational success

INTRODUCTION

Following adverse comments on HSC results for some schools in Western Sydney in January 1996, the incumbent Minister of Education embarked upon an ambitious programme to restructure some of the secondary schools in the DET so as to establish special collaborative school partnerships called multicampus colleges. The ministerial reforms were embodied in what the Minister codenamed 'The Collegiate Education Plan' (DET, 1999). The essence of the Plan was to amalgamate selected years 7 – 12 schools into collaborative partnerships consisting of years 7 – 10 middle schools and a dedicated years 11 – 12 senior campus.

This Plan was first experimented upon at Nirimba in Western Sydney where three years 7 – 12 comprehensive high schools (Quakers Hill High School, Riverstone and Seven Hills High) were restructured to become years 7 – 10 middle schools of one college and integrated with a new years 11 – 12 senior campus called Wyndham College. The four sites were then integrated in a collaborative partnership called the Nirimba Education Collegiate.

Following the successful launch of the Nirimba Collegiate in January 1998, DET moved quickly to introduce similar partnerships in other school districts. Apart from changes in the structural features, the most innovative change was cultural. It was the break down of individual school autonomy which the participating schools had previously enjoyed and its replacement by coalitions of collaborative principals. This occurred because, following the integration, the principals of the schools within a Collegiate were to work collaboratively as a collegial team. This way, a new kind of principalship or leadership, founded on teamwork and celebration of peer

support, rather than individual autonomy and loneliness at the top, was born.

By 2004, nearly 8% of secondary school students enrolled fulltime in all NSW government secondary schools, were in Collegiate partnerships (ABS, 2004, p.13). Schools integrated in the Collegiate partnerships represented 10% of all DET secondary schools in NSW (DET, 2004). The Collegiate partnerships were now significant players in a new partnership engaged in the delivery of secondary schooling across collaborative partnerships in new structures.

However, available literature shows that generally, there is a gap in the information on leadership and coordination across the individual boundaries of these collaborative school partnerships. This paper aims to help bridge this gap by using the latest qualitative data software *Leximancer* (Smith, 2007) to analyse data collected from 7 of these schools to investigate the leadership practices and the new strategies introduced for educational success in these schools.

LITERATURE REVIEW

This paper is situated at the intersection of literature on educational leadership and educational change dynamics. There is a well established understanding that leadership is the basis for educational success in any school (Robinson, 2008). It is also well agreed that any structural change is only worthwhile if its aim is to improve organisational performance. Fullan (2000, p.4 and 2003, p.11) calls this "the moral purpose of educational change". Silins and Mulford (2002, p.431) concur when they add that "improved student learning" ought to be the primary motive for educational reform. Dinham (1995, p.70) was of the same opinion when he suggested that "facilitating pupil achievement (was) the acid test of successful school reform".

Bolman and Deal (2003) suggest that restructuring initiatives change not only the

organisational structure of the participating schools but also the practices which constitute the synergies in the human interactions and students' outcomes in the schools that become involved in the new strategies introduced for educational success. Similarly, Senge (1999, p. 43) highlights the inextricable interconnectedness between structural change and human behaviour when he says that "the underlying structures shape individual actions and create the conditions where types of events become likely." The catalyst that creates the synergy for such events to become real is leadership (Mintzberg, 1979). Mintzberg (1979) also strongly endorses coordinating leadership as the basis for successful coherence across organisational partnerships. This coordination and the culture that evolves from it, according to Bolman and Deal (2003), Evans (1996) and Schein (2005) is a direct function of leadership. This is why Schein (2005, p.15) goes as far as saying that "leadership and culture are two sides of the same coin". In similar congruence, Mulford, Silins and Leithwood (2004) attribute improved student learning to effective leadership. More recent research conducted at the University of Auckland by Professor Viviane Robinson (2008, p.1) using an approach called iterative Best Evidence Synthesis (BES) drew on national and international data to conclude that "clearly, leadership does matter".

In conclusion, there is ample literature to deduce that changing the structures of schools to create partnerships is important but it is not the only consideration. Enabling leadership is needed to understand those structures and to coordinate them if coherence and positive synergies are to be realised across the collaborative school partnerships. In this study, the structural changes and the leadership practices created by the Collegiate partnerships were investigated within the theoretical framework of Kivunja's (2006) New Dynamics Paradigm and analysed using relatively new qualitative software called Leximancer (Smith, 2007). These are outlined below.

THEORETICAL FRAMEWORK

The data was analysed within Kivunja's Dynamics Paradigm, designed and first presented in a PhD thesis (Kivunja, 2006). Because the steps followed in deriving the Dynamics Paradigm and all its variables are well documented in several publications (Kivunja, 2005; 2006; Kivunja and Power, 2006, Kivunja, 2007, p.35), and for brevity of the paper, there is no need to repeat details here. Readers are referred to these citations.

METHODOLOGY

The data for this investigation was gathered as part of a PhD case study. Details of the study design, methodology and major findings can be found in Kivunja (2006). Case study methods were followed to study 7 out of the 34 Collegiate partners. This decision was based on three criteria, namely: longevity, typicality and rural or urban location (For details see Kivunja, 2006, p.162). In each partnership, participation was voluntary. Interviewees were randomly selected from the list of individuals who had volunteered to be involved in the study. Interviewees included teachers, students and parents. The principal and deputy principal of each school was also interviewed. Permission was gained to have the interviews tape-recorded and this helped to speed up the process.

When the interview transcripts were converted into digital format and read into Leximancer software, Leximancer coded nodes in the data and processed it into primary themes that were occurring in the data from within and across the collaborative school partnerships. The themes were presented in graphic displays. The graphics showed the interconnectedness among the themes as well as their significance rankings. The themes were carefully examined and investigated for co-occurrence. By digitally increasing themes size from 20% to 40%, each theme was widened so that only the most predominant themes were displayed. The themes were profiled and investigated using inductive and verification techniques (Schwandt, 1997, p.80). The results are reported below with the assistance of Figure 1.

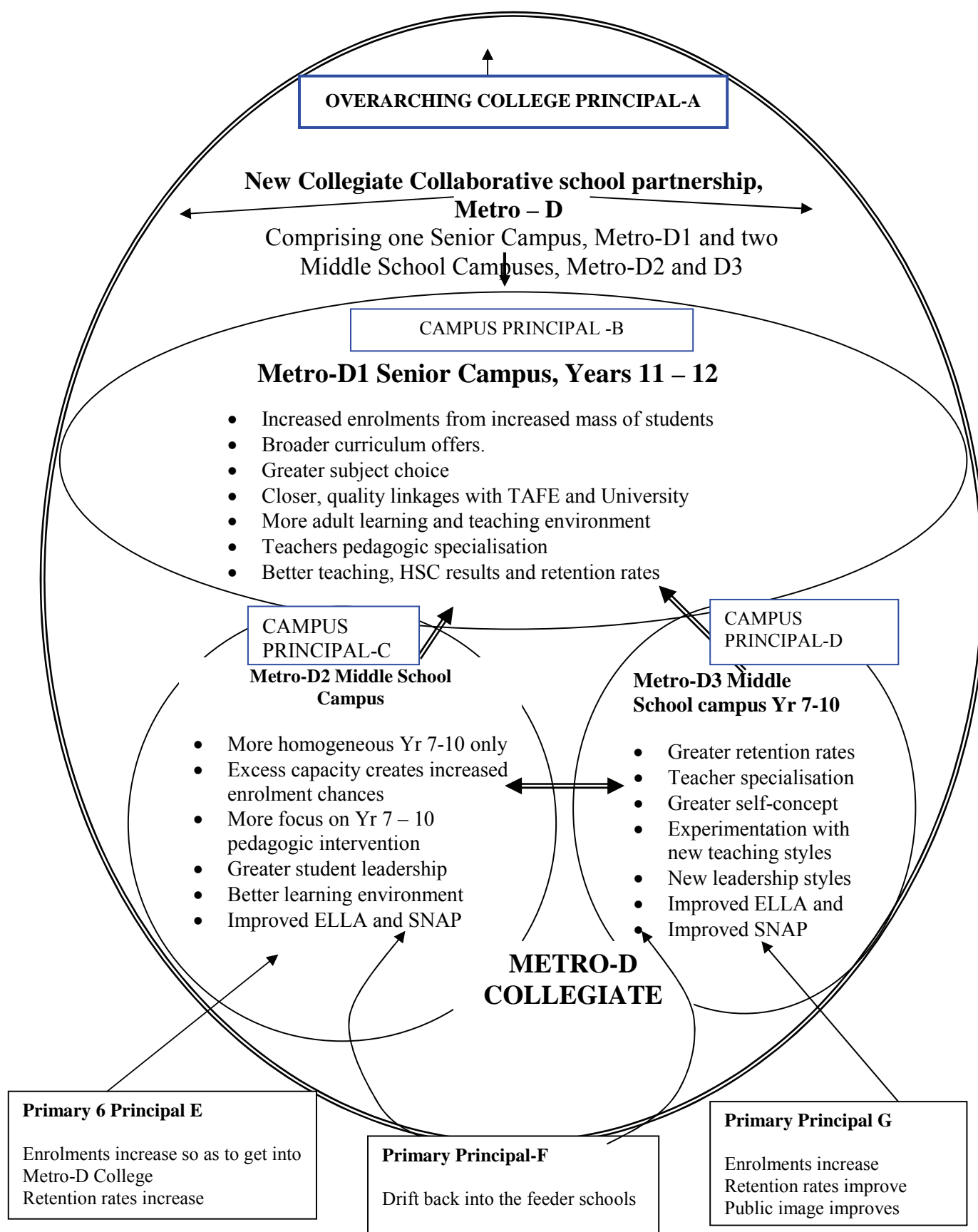


Figure 1: Collaborative leadership among NSW school partnerships

RESULTS

Figure 1 represents the collaborative partnerships found in the Collegiate studied, the leadership styles and organisational outcomes. The Collegiate is pseudonymed Metro D. It is lead by an overarching College Principal-A. The Collegiate comprises three campuses pseudonymed Metro-D1, D2 and D3 respectively. Metro-D1 is the senior campus and D2 and D3 are the middle school campuses. Each of the campuses is lead by a Campus Principal (B, C, D respectively). Herein lies the first ingredient of Collegiate synergy which makes leadership in a Collegiate intriguing, creative and attractive. The three Campus Principals work cooperatively with each other and collaboratively with the College Principal. This dynamic overcomes the “loneliness at the top syndrome” suffered by non-Collegiate school principals. Moreover, the leadership role of the overarching College Principal is to coordinate and to facilitate the work of the Campus Principals so that the Collegiate as a whole achieves its organisational objectives of improving student outcomes. Campus Principals said – and the College Principal agreed – that the College Principal had no line management authority over them. “We are a team of equals”, they said. Their leadership had become more interesting because, as one of them put it:

Now we have peers with whom we share decision-making and problem solving. We meet regularly and together we plan what is good for the Collegiate. We each have responsibility for our own campuses, but we don't act autonomously. We are constantly mindful of how what we do impacts on our Collegiate partners.

From such submissions I concluded that the leadership style in a Collegiate collaborative partnership is one based on the principle of “Unity without Uniformity”. Young and Hester (2004) explain that:

Unity without Uniformity is about being of one mind, united in what we do and aspiring to make a significant difference (but recognising our) increasing diversity. ... it requires self-evaluation as well as seeking common goals within the organisation. We need to work from the bottom up – self-definition first, then the organisation (p. 2004, p.1).

Inside each campus circle in Figure 1 are summarised examples of the coordination and synergies which go on within the Collegiate

collaborative partnership and some of the outcomes which are celebrated. Also shown are the primary feeder schools whose principals E, F and G respectively, send their year 6 graduates to the Collegiate.

CONCLUSION

The synthesis of the results showed that leadership and coordination of the critical mass of the Physical and Human Infrastructure brought together in a Collegiate collaborative school partnership, such as Metro-D, creates coherence and synergies which have potential for school improvement and effectiveness and to make school leadership more distributive and cooperative. The analysis found that the synergies in the new collaborative school partnership had resulted in significant impacts on students' enrolments, retention rates and curriculum on offer – all of which had increased significantly. Time series data on enrolments showed that on average, enrolments had increased by 22.5% between 1998 and 2004. Apparent retention rates (as defined in DET, 2004) were 44.12% higher than the state average. The increases had occurred in both the senior campuses and the middle school sites of the partnerships and were good cause for celebration.

The reasons these improvements were emerging were, firstly, because of the synergy of the critical mass of the larger numbers which resulted from the mergers of the schools. For example, as illustrated in Figure 1, Metro-D2 and D3 both send their year 10 graduates to Metro-D1. This boosts the enrolments in the senior campus – Metro-D1. Secondly, the schools had become more attractive to parents and students in the areas on the realisation that the schools could now offer a wider curriculum and a broader subject choice for the HSC. This is represented in Figure 1 by the arrows linking the primary schools E, F and G to the middle school campuses Metro-D1 and D2. This has also positive implications for collaboration between primary school principals and those within the Collegiate partnership.

Thirdly, the learning environment had also improved in several ways. For instance, there was consensus among all interviewees that the senior cohorts now learnt in a more mature environment which was also more academic because it focused more on the HSC. In the middle school campuses, there was agreement among all interviewees that “younger students had ‘matured’ by taking on the leadership roles that were normally carried out by year 12”.

As summarised in Figure 1, a large majority of the teachers interviewed said their pedagogic intervention had improved. They explained that quality teaching had improved because “many teachers had developed skills as ‘specialist senior teachers’ or middle school ‘specialists’ who honed their teaching skills in the delivery of the relevant pedagogy rather than teach as generalists across the years 7 – 12 continuum”. Teachers explained that leadership had allowed such specialisation to occur and they valued it. The improved students’ outcomes shown in the campuses were reported by all principals to be one of their greatest sources of satisfaction and interest in their new way of leadership. Principals were unanimous in their assertion that collaboration within their partnerships had created opportunity for them to celebrate success for their students. Their shared vision was to work together for the improvement of students’ outcomes rather than have one school compete against the other. This type of collaboration and satisfaction is needed if the principal’s job is to escape the stigma of ‘loneliness at the top’ and working alone ‘in the hot seat’.

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EDUCATING PEACEFULLY: THE MAKING OF MANDELAS

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ABSTRACT

Can a peace maker be made? What role do schools play in the creation of a 'peaceful' person? Is it possible to manufacture Nelson Mandela-like global citizens? This paper will explore the proposition that peace makers can be created through just, peaceful and democratic curriculum design, pedagogical approaches, organisational structures and community engagement.

KEYWORDS

Curriculum - pedagogy - social justice - peace - democracy

INTRODUCTION

Accepting the 1993 Nobel Peace Prize, the then South African President, Nelson Mandela spoke of the '...challenge of the dichotomies of war and peace, violence and non-violence, racism and human dignity, oppression and repression and liberty and human rights, poverty and freedom from want.' (Mandela, 1993) It is this very challenge that characterizes Nelson Mandela as a realistic, tangible role model complete with imperfections, a passion for social justice and ultimately, success. His life is punctuated by determination, adversity and most recently, propensity for forgiveness rather than reprisals. He offers to those in pursuit of peace a model for change that accepts plausible human responses such as violence to oppression and moves beyond such reactions to lead others in practices that bring about significant change. Nelson Mandela displays the resilience, determination and leadership that we strive to develop in our students through the curriculum we teach, the pedagogy we employ and the way we organize our schools and society. If students are to become global citizens prepared to learn throughout life and contribute effectively to peace, democracy and institutional structures that demand justice and equality then we need to clearly teach and model necessary skills in today's classrooms, schools and communities.

Few would challenge the notion that in a perfect world where the ideal curriculum exists, explicit peace education catering for the development of global citizens forms an essential component of the curriculum framework. In the real world, the continued pressure on educational institutions, students, teachers and the curriculum itself to meet predetermined benchmarks in a congested environment, challenges the place of peace education as foundational to a substantive educational program. Peace education is defined and delivered in markedly different ways.

Perhaps the most comprehensive definition is presented by Harris and Synott (2002, p. 4) who wrote:

By 'peace education', we mean teaching encounters that draw out from people their desires for peace and provide them with nonviolent alternatives for managing conflicts, as well as the skills for critical analysis of the structural arrangements that legitimate and produce injustice and inequality.

Peace education in schools has primarily focused on '...conflict resolution, peer mediation, and violence prevention...' (Groff, 2002, p. 9). Regardless of the aims, peace education is often characterized by its delivery at pre-determined points in an educational journey. Whilst many stand-alone peace education programs experience degrees of success in regards to developing youth as skilled, knowledgeable advocates for peace in specific contexts, (Ardizzone, 2003; Eckhardt, 1984; Fountain, 1999) the ongoing evidence of conflict in our society raises questions in regards to the effectiveness of the transfer and application of such skills to new contexts. An alternative to isolated peace education programs is to 'educate peacefully'. This holistic approach is characterized by three primary domains which include the curriculum, school organization and community engagement. Curriculum focuses on the teaching approaches and learning experiences whilst the school organization incorporates issues such as school leadership, ethos and functional structure. The final domain, community engagement deals with the essential role played by the wider society in advocating and modeling peaceful practices.

Educating peacefully, a holistic approach to peace education ensures that as the inevitable national and state curriculum priorities change, the creation of lifelong learners who are skilled, culturally intelligent global citizens adequately equipped to preserve and create peace in the twenty-first century is not lost in the scramble to meet predetermined outcomes. Candy, Crebert & O'Leary (1994) assert that lifelong learners are

characterized by a critical spirit, a sense of the interconnectedness of fields of study and the ability to critically evaluate information. They go on to argue that pedagogical methodology that incorporates experiential, real-world problem-based learning with reflective practices promotes lifelong learning. These very characteristics of both the lifelong learner and the required pedagogy mirror those required for effective peace education. Such characteristics and distinct pedagogical approaches offer effective platforms from which to launch a holistic approach to peace education that maintains the teaching of peace knowledge and skills through the curriculum. Additionally, it models conflict resolution strategies, peaceful policies and practices in both the organization of the educational institution and its engagement with the wider community. A holistic approach to peace education features a wide range of educational imperatives and may incorporate curriculum, pedagogy, professional development, pastoral care, behaviour management and evaluation procedures. This paper will deal briefly with the potential to create skilled and knowledgeable Mandela-like global citizens as a result of aspects from all three domains; curriculum, school organization and community involvement.

Peace: A Holistic Approach

In the current political and educational environment it is no longer enough to argue for the inclusion of an area of study in the curriculum simply because it is a noble pursuit or because it may, optimistically lead to a more peaceful society in the future. To expect a place in the contemporary, congested curriculum, an area of study must do this and more. It must contribute to the achievement of benchmark literacy and numeracy levels, develop higher order thinking skills, cultivate the attributes of both a lifelong learner and a culturally intelligent global citizen and contribute directly to academic results. Without these characteristics, any area of study will struggle to justify its place in the contemporary curriculum. A holistic approach to peace education which incorporates more than a single domain offers greater opportunity to meet these criteria than explicit, stand-alone peace education programs. A study (Wahlstrom, n.d, as cited in Hall, 1993, p. 18) of 375 Finnish adolescents aged between 17 and 18 years of age found that ‘...boys considered warfare to be an intrinsic part of human nature and wanted an increase in armaments spending’. Such findings suggest that the opportunity to educate peacefully has currency in our contemporary society. In the classroom setting, such an approach might include a change of focus. For example, in a

typical study of conflict at a senior secondary level, students might investigate the history of the Palestinian – Israeli conflict and be tested on their application of skills in relation to evidence from the period. A holistic approach might focus on this period through a selection of investigations into the many peace plans that have been proposed and adopted in the region culminating in the creation of an alternative proposal for peace outlining general characteristics and their justification. Such an approach would also involve the investigation by students into examples of empowerment, disempowerment and authority within their own school context. Students might interview or observe others and reflect upon their own experiences of student identification with place in regards to designated school areas such as a senior common room or nominated year level lunch area. They may also involve the community through investigations into the struggle for land rights and ensuing conflict in relation to Aboriginal native title. Guest speakers, excursions and real world learning would make connections between their own experiences and those of their community whilst developing understandings of history and other nations. Finally, students would return to the core curriculum and reflect upon knowledge and skills developed during the process of designing a proposal for peace in addition to reflecting on their new or developing understandings of their own environment and that of their community.

The curriculum, school organization and community domains that characterize a holistic approach contribute collaboratively to the development of students both as individuals and as members of a global community. Such an approach makes every attempt for a more peaceful future but also meets the academic, social and cultural needs of governments, educational institutions, communities, society and most importantly the students we teach. A holistic approach to educating peacefully incorporates pedagogies that explicitly teach skills such as reflective practice and critical self-awareness. Candy (et al., 1994, p. 128) suggests that such approaches to teaching are most likely to build foundations on which lifelong learning skills can be built. In addition, such a methodology teaches ways of approaching, transferring and interpreting knowledge that allows for learning to take place between different environments and over time thus allowing skilled students to learn and develop new and appropriate approaches and understandings as their world inevitably changes. The added exposure to models of organizational and societal practices through the school and

community domains further exemplify peaceful ways and challenge accepted practices. This collaborative approach may include teachers as curriculum designers and facilitators, democratic structures within the school and classroom and appropriate community engagement.

Curriculum Designers

In order to educate peacefully, curriculum design must be underpinned by shared values and created in part by those that teach it. Educators must also be given adequate time to develop innovative pedagogy and to hone skills with which to reflect upon, evaluate and renew curriculum. Eisner (1985, p. vi) recalls that:

There was a period in American Education when curricula developed by educational laboratories and commercial publishing houses were to be “installed” in schools. One engaged in curriculum installation, often in the same way that one installed carpeting or a new air filter in one’s car. Nothing could have been further from the truth. Teachers need to have a stake in what they teach. They are not merely passive tubes or mechanical conveyers of someone else’s ambitions and interests.

When teachers are fully involved in the development of curriculum, its implementation, evaluation and modification; peaceful, democratic and just approaches are being modeled and genuinely valued in educational institutions. We should not imagine for a moment that students are oblivious to the disenchantment of teachers who, in a climate of external review, deliver prescribed curriculum in which they are minor stakeholders and have little sense of ownership. The relationship between teacher and student is paramount to quality education. Without a significant stake in curriculum then the delivery may revert to an out-dated model which bears no resemblance to the ‘experiential-based and problem-based learning’ model (Candy et al., 1993, p. 128) that lends itself to developing attributes of a lifelong learning. If teachers are involved in institutions where peaceful approaches are given priority then the opportunity exists for them to feel part of a just, democratic, and peaceful organization. Educating peacefully is not restricted to students; a holistic approach demands that those that teach be respected, valued and empowered members of the education profession. MacBeath (1997, as cited in McGhie and Barr, 2000, p. 61) suggests that,

Schools do not improve in a climate of threat and sanctions. The metaphor of levering standards from the outside is a deeply misguided one. Schools improve,

just as pupils do, when they are secure and confident enough to be self-critical and when they have the tools and the expertise to evaluate themselves.

Secure, confident, self-critical administrators and teachers offer their students insights into peaceful ways of managing complex organisations. Such models allow students to apply and transfer these practices to their own personal and professional dealings throughout life. In practice it means that students continue to learn, reflect and critique both skills and understandings in a range of contexts over time.

Pedagogy

‘Perhaps the greatest of all pedagogical fallacies is the notion that a person learns only the particular thing he is studying at the time.’ (Dewey, as cited in Eisner, 1985, p. 87). A holistic approach to peace education embraces pedagogical methodology that is just, models democratic processes and attempts to create a peaceful environment in which to learn. Harris (1990, p. 255) argues that ‘peace pedagogy’, characterized by dialogue, cooperation, problem solving, affirmation and democratic boundary setting needs to take the place of outmoded educational practices. Such practices present the teacher as the font of all knowledge, create competitive classrooms, allow and create passive, powerless students and use force as a means of control. ‘Peace pedagogy’ and the pedagogical methodology which encourages lifelong learning share common imperatives such as reflective practices, self-directed, problem-based and peer-assisted learning (Candy et al., 1994, p. 128). A peaceful environment does not mean a quiet classroom, in fact, quite possibly the opposite. What it does mean is that each participant in the learning environment feels valued, respected and empowered whilst simultaneously learning skills and developing understandings for the present and future. One cannot realistically expect students to comprehend and apply democratic processes to their personal interactions after spending their days in a dictatorial classroom. It would be unlikely that a future business owner, employer or dutiful worker would approach problem solving in a just and peaceful manner if their school learning environment had not allowed for fair and equitable processes. Burns (1990, as cited in Hall, 1993) asserts that student-centred learning is critical to successful peace education. There is nothing new in claims that student-centred learning is beneficial to the gaining of skills, knowledge and attributes, however it is critical to the aims of a holistic approach to peace education because it models the skills that culturally intelligent, global citizens must have,

and that is the consideration and valuing of others, the skills to contribute effectively to a group environment and an understanding of the balance between roles and responsibilities. Pedagogical methodology that is peaceful in its application is crucial to a holistic approach as it models learning, problem solving and human interaction that enable the lifelong learner to apply such skills to both their present and future learning environments.

Pastoral care initiatives and a multitude of subject areas deal in part with complex issues relating to conflict and disadvantage and are effective vehicles through which to teach about peace. Vrienns (1997) proposes that teachers create a learning environment in which hope for the future is seen as realistic, where skills are developed through experiential learning and where debate and analysis form part of the culture of the classroom. In order for any curriculum area to contribute to the goal of educating peacefully, the pedagogical approach is critical. McGhie and Barr (2000, p. 49) argue that pedagogical methodology requires '...collaborative learning and a focus on meaning-making and knowledge building rather than simply information processing.' Students who are exposed to a cursory, stand-alone study of conflicts, social injustices and anti-democratic practices focusing primarily on a pessimistic chronological journey miss the opportunity to make a real connection between themselves, the invaluable experience of their predecessors and their own peaceful futures. A critical inquiry approach that considers perspectives and evidence models a methodology that demands inquiry rather than blind acceptance. In addition, such an approach allows for empathy and the emotions that accompany it to be investigated, ensuring that students see clearly, for example, that the characteristics of anti-Semitic attitudes in Europe prior to World War Two differ little from the attitudes often shown towards the weak, quiet or just plain different in school grounds every day. We need to ensure that we genuinely investigate events through a critical inquiry approach so that the essential, peaceful lessons of history are not lost in the struggle for a place in an outcomes driven curriculum that may be propelled by changeable political agendas. It is imperative that we instil in our students the willingness to investigate issues whilst equipping them with the skills to make informed meaning of their world and pursue knowledge and understanding rather than information both now and in the future. Only then will the way we teach impact positively on the creation of future generations with an eye for social justice, peace and democratic practices.

Peaceful School Organisation

Some would argue that the constraints of timetabling, specifically the coordination of enrolled students, able teachers and available teaching spaces restrict the ease at which a school might employ appropriate pedagogical methodology to support a holistic approach to peace education. What is often easier is to use a range of test instruments to 'stream', 'journey' or 'ability group' students so that teachers can better direct their instruction to the level of their cohort. Such methods do not necessarily extinguish the opportunity for student-centred learning, and may in fact be suitable for developmental subjects; however, an approach such as this does little for ensuring inclusive education where students and teachers experience socially just, democratic and peaceful modeling of processes and policies. Firstly, a school would need to be absolutely confident that their initial testing was just. Assessment is complex and multi-faceted, as are the students it tests. Secondly, the social implications of streaming can be far from peaceful as students, their peers and parents very quickly identify the academically capable group as well as those less so inclined. This grouping of students, suggest Feiler and Gibson (1999, p. 148) '...can be limiting or harmful to those unlucky enough to be assigned to a 'low ability' group'. Finally, the global citizen in the new millennium will rarely be expected to work in isolation or in a group characterized by like minded approaches. Mixed ability groupings, provided they are supported by adequate and increased staffing, model life itself; a blend of attitudes, styles, problem solving techniques, proficiency at skills and varying approaches to communication. Harris (2002, p. 30) puts forward the suggestion that in our enthusiasm to teach students highly developed academic skills we have neglected the essential 'human relations skills'. If the future we wish to contribute to includes current students who show aptitude for both academic and relational skills then, as Rubinstein and Stoneman (1972, p. 143) propose, outdated understandings must be discarded.

It is now held that a child's intellectual skills and abilities, instead of being fixed by heredity, are formed in the process of his life and experiences – in particular through his interaction with adults through the use of language. It follows clearly that the group of which a child forms part is itself a crucial factor in his development, providing him with stimulation in many different ways. The modern theory of intelligence make it clear that to group children in different streams, A, B and C (and even

down to N, O, P in a very large school) according to a prediction about future intellectual development, is no longer a viable procedure. The child's development will be determined, to some extent, by the specific group of which he forms part.

From a purely self-seeking perspective, we as educators need to model the attributes of the society in which we wish to retire. Present day students will manage our superannuation funds, operate the facilities we use and perform the medical procedures we require in our future. We need to ensure that they develop appropriate skills that prepare them to deal with the multiplicity that characterises human nature as well as the attributes that allow them to continue to foster new knowledge, skills and understandings. The way in which we group students in our classrooms may well be mirrored in the way our future students group patient access to medical procedures or distribute dividends; we need to ensure that we model just, peaceful and democratic processes in every action being viewed and experienced by our students.

Community Involvement

In the current climate of an obesity epidemic and related health issues, we cringe at the very thought of Australian schools going the way of some of our American colleagues and allowing fast food outlets to control the tuckshops at our schools. Yet we seem to lose little sleep over the impact of multi-national companies with questionable environmental and industrial relations records sponsoring our football team or providing donations as part of an advertising agreement that has their logo on the school newsletter. Everything we do sends a clear message to our students. By allowing such partnerships to not only exist but be promoted, we clearly indicate to students, staff and the community that the educational institution involved not only supports organizations with questionable justice, peace and democratic process records, we are willing advocates for them. According to Claxton (2000, p. 28) 'Adults induct young people into the views of their culture through their actions as well as their words.' The hidden curriculum, the gaps and silences, the advocacy and prominence of events, people and practices send strong and clear messages to students about what it is we value and respect. There is little doubt that if we use our mission statements, school ethos and underlying values as a marketing tool rather than a genuine system of shared beliefs then we as educators and administrators are deceiving and misleading our parents, guardians and communities. We also risk missing the

opportunity to play a more substantive role in shaping a just society and perhaps more importantly, modeling appropriate action to students through educating peacefully.

CONCLUSION

Whilst the traditional caretakers of stand-alone peace education programs in schools struggle to maintain the prominence of a curriculum that directly investigates issues of social justice, peace and democratic practices in a crowded curriculum, a more holistic approach to peace education presents distinct advantages. It allows schools to do more than focus solely on the already complex task of teaching skills for resolving conflict, peer conciliation and the prevention of violence. Through the implementation of the three primary domains; curriculum, school organization and community engagement, schools are able to teach, learn, model and advocate for peaceful practices, skills and knowledge. A holistic approach to peace education as opposed to stand-alone peace education programs is both academically and socially progressive as it provides opportunity for a more peaceful future in addition to providing for core learning outcomes through best practice pedagogical methodology and school organization. A school characterized by a structure and curriculum that is inclusive and student centred provides for real world opportunities through critical inquiry, designed and regularly evaluated by those equipped to appraise and deliver it. In addition, appropriate community engagement offers students learning opportunities whilst positioning the school as a partner to industry and a significant stakeholder in the lifelong learning environments of our community. A holistic approach to peace education through the domains of curriculum, school organization and community engagement offers current students the opportunity to experience peaceful, world-class learning for life. This approach also allows for these same students to access new skills and understandings as resilient, Mandela-like global citizens equipped with the skills and attributes required to deal with ever changing environments and needs.

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THE ePORTFOLIO AS A TOOL FOR LIFELONG LEARNING: CONTEXTUALISING AUSTRALIAN PRACTICE

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ABSTRACT

The report details a lifelong learning context for the Australian ePortfolio Project (AeP). EPortfolios are discussed in terms of supporting lifelong learning. Major themes and issues arising from the project are briefly discussed. The role of projects, such as the AeP, in informing national lifelong policy is suggested.

KEYWORDS

ePortfolios – higher education – reflective practice – lifelong learning

INTRODUCTION

The report provides a lifelong learning context to the Australian ePortfolio Project (AeP). EPortfolios are described and discussed as tools and possible enablers for lifelong learning. International and Australian ePortfolio initiatives and activities are briefly outlined to give further context to the AeP. The AeP is funded by the Carrick Institute, with Queensland University of Technology partnering with University of Melbourne, University of New England and University of Wollongong. The project aims to investigate the use of portfolios/e-portfolios in order to gain a better understanding of what is happening in schools, higher education, vocational education and training and employment, to inform future lifelong learning policy and practice in Australia. Major themes and issues arising from the research are briefly outlined. The report concludes with a suggestion that projects such as the AeP should positively inform current Australian government lifelong learning policy

BACKGROUND

Lifelong learning

The concept of lifelong learning has been with us for a very long time. Plato spoke about the lifelong nature of learning. In 1972, the term “lifelong” was linked directly to education and learning in the UNESCO Report of the International Commission on the development of education (Friesen & Anderson, 2004). Both UNESCO and the OECD consider lifelong learning to be essential for “economic prosperity and social stability” (Watson, 2003, p. 1). Learning throughout life is an “imperative for democracy” (Delors, 1996, p. 100). There is a growing awareness that in order to equip workers to remain employable in times of great technological, environmental and global change, it is essential that policy makers consider the role

of continuing education as a lifelong activity in formal education, in informal training and in workplace learning. DEST (2007) identifies lifelong learning as an essential “employability skill for the future” (p. 10). The European Commission for Education and Training (2006) states that lifelong learning will be the framework in which new approaches to education and training will be developed. Based on the connection to economic and social advantage, governments have responded through policy making which advocates the need for citizens to be actively and purposefully learning on a lifelong basis. Developing in parallel to the productivity driven agenda however have been more holistic notions of lifelong learning.

The “four pillars of education” are learning to know, learning to be, learning to do and learning to live together. These dimensions of learning were identified and described by UNESCO. This action by UNESCO indicates an awareness of the need to balance requirements for skills and knowledge development with the need to be able to identify and seek out learning opportunities over a lifetime (Delors, 1996, p. 85). By promoting these learning dimensions, UNESCO policy makers were stating the fundamental principle that education “must contribute to the all-round development of each individual” (p. 94). Smith (2000) has identified the “eclecticism of lifelong learning”, that is, the inclusion of every manifestation of learning opportunity; the incidental, informal, unintentional and unplanned (p. 681).

The variation within the foregoing suggests the complex nature of lifelong learning. The current report looks at the contribution which ePortfolios, as a way of thinking, as a strategy for teaching and learning and as a means of capturing personal reflection, may provide a tool for people to actively participate in their own lifelong learning.

ePortfolios defined

Sutherland and Powell (2007) define an ePortfolio as “a purposeful aggregation of digital

items – ideas, evidence, reflections, feedback etc, which ‘presents’ a selected audience with evidence of a person’s learning and/or ability”. Recently, Cotterill (2007) has defined ePortfolios to acknowledge the central activity of the portfolio approach, namely the process of reflection, self-awareness and forward planning. Portfolios have multiple purposes and are created from different perspectives according to individual need. The learning portfolio, the credential portfolio and the showcase portfolio types have been identified by Zeichner and Wrey (2001). Abrami and Barrett (2005), while also identifying three different types of portfolio, have a different basis for distinction. They note a process portfolio, showcase portfolio and assessment portfolio. Smith and Tillemma (2003) identify two dimensions which differentiate portfolio use. Portfolios may be (i) mandatory or voluntary and (ii) they may be for selection or for personal development purposes. These dimensions result in four distinct types of portfolio, dossier, training, reflective and personal development (p. 627). Barrett (2004) quotes a range of metaphors, “a mirror...a map...a toothbrush...a journey” which poetically illustrate the diverse range of portfolio types and the different purposes for engagement. The diversity in the nature of portfolio practice is also shaped according to the sector in which the activity takes place.

EPortfolios may also be defined as a way of thinking. Harper (pers. comm. 2007) emphasises the need to consider ePortfolios in terms of thinking and learning process rather than technology. Calderon & Hernandez (2006) noted that students became aware of ePortfolios as a way of thinking when they were reflecting on experiences and “creating a linkage between theory and practice” (p. 2). EPortfolio thinking derives from reflective practice. Central to the emphasis on process or way of thinking, is the reflective dimension of ePortfolio activity. According to Diamond (2006), “reflection is a central pillar” of ePortfolio activity. Candy (1995) noted that reflective practice and critical self-awareness are essential to “encourage lifelong learning skills and approaches”. Thus, active engagement in the ePortfolio approach to learning and teaching may be seen to progress lifelong learning activity through the reflective process.

ePORTFOLIOS AND LIFELONG LEARNING

International ePortfolio initiatives

In Europe, ePortfolio activity has been advancing rapidly over several years. It is outside the scope of the report to identify all international activity.

A few of the many international initiatives are detailed. In Europe, the development of e-learning technologies and strategies has led to the vision of an “ePortfolio for all by 2010”. The vision emerged as the Lisbon strategy at the Lisbon Conference 2003 which aimed to give Europe greater sustainability and economic benefit. The strategy gave lifelong learning the important role of “achieving the economic, employment and social goals for Europe” (Leney, 2004, p. 8). The development of ePortfolios as support to the concept of lifelong learning had been forefronted in Europe in 2001 by the establishment of the European Institute of E-Learning (EifEL). In 2003, EifEL instituted the Europortfolio Consortium. It is significant that the founding members of this consortium namely, EifEL, European Schoolnet, Centre for Technical Interoperability Standards and European IMS, a foundation established to “promote standards and specification-based eLearning in Europe” span both the educational and technical dimensions of ePortfolio use, thus indicating very early in the development of ePortfolios the intention to mainstream ePortfolio use across the European education sector and into the wider community. The notions of learning technologies, reflective practice and lifelong learning are central to EifEL’s activities. (EifEL, 2006).

In Wales, there has also been interest in promotion of personal portfolios as a tool for every citizen. Career Wales was developed as a “client-led web service which will enable everyone to hold an e-portfolio of achievements, qualifications, experiences” (Jones, 2004). The intention was to introduce students to ePortfolio use during the school years and engage them in portfolio practice as an ongoing workplace, professional development and lifelong learning activity. The aim has been achieved and is integral with the UK Progress Files described in the next section.

The UK is actively engaged in promoting and supporting the use of ePortfolios. Activity arose from within the education sector and was driven by government policy. The UK Progress Files provide every student with the means for making their learning explicit. Both dimensions of learning, informal and formal are supported. Students are encouraged to actively plan their own learning opportunities (Department for Children, Schools and Families, nd). The Centre for Recording Achievement (CRA) operates as an Associate Centre of the Higher Education Academy (HEA), with a specific focus on supporting higher education institutions and their communities with the implementation of

Progress Files, Personal Development Planning and ePortfolios (CRA, 2008). The CRA has a membership that encompasses major higher education institutions, smaller organisations and individual, providing a forum for dialogue about policy and practice in the area of ePortfolios. The organisation has close links to the Joint Information Steering Committee (JISC), the Quality Assurance Agency (QAA) and, of course, the HEA. The CRA is currently involved with the US ePortfolio initiative the Inter/National Coalition for Electronic Portfolio Research, which aims to promote student learning and achievement through ePortfolio approaches to learning and teaching. The Lifelong Learning in London For All project investigated the concept of trails as an organiser for lifelong learning. A portal was created using a range of web services including social networking tools as well as ePortfolios to support the independent lifelong learner. They noted the pervasive nature of social networking among young people (de Freitas, Harrison, Magoulas, Mee, Mohamed, Oliver, Papamarkos & Poulouvassilis, 2006).

The Inter/National Coalition for Electronic Portfolio Research is a United States (US) initiative. Their purpose is to “to study the impact of ePortfolios on student learning and educational outcomes”. Institutions can apply for a three year term of membership to the coalition. There is a blog/chat tool which facilitates ePortfolio communication thus promoting lifelong learning internationally. The initiative is significant because it brings together international collaborators on a three year rotation thus obtaining wide ranging expertise to inform ePortfolio development and practice (Inter/National Coalition For Electronic Portfolio Research, 2008). Use of ePortfolios in US universities is extensive and outside the scope of this report.

ePortfolios in Australia and New Zealand

ePortfolio activity in Australia arose within areas traditionally portfolio-based areas such as teacher and nursing education where evidence of standards attainment is required for registration. There have been ePortfolio initiatives arising in the careers and employment sections of higher education institutions, as a response to the call from Australian employers for job-ready graduates. Australian employers favour an ePortfolio approach as it gives a “more informed picture of the job candidate” than would a traditional resume (DEST, 2007, p. 42). In Australia, there is little evidence of institution wide ePortfolio systems but there is a great deal of evidence of “pockets” of ePortfolio activity

and widespread interest in ePortfolios, across the higher education sector. The recent investigation into ePortfolio use in the VET sector, commissioned by e-standards Expert Group (Leeson, 2008), found that most projects were “still evolving or in their infancy” (p. 3). The Australian ePortfolio Project is a current initiative investigating ePortfolio engagement in the Australian higher education sector.

The New Zealand Tertiary Education Commission’s eLearning Collaboration was contracted in 2006 to develop an ePortfolio application for the New Zealand tertiary sector. The project was a collaborative effort involving Massey University, Auckland University of Technology, The Open Polytechnic of New Zealand and Victoria University of Wellington. The resulting ePortfolio application, Mahara, is freely available and provides users with the tools to “demonstrate their life-long learning, skills and development over time to selected audiences”. “Mahara” means thinking or thought and conveys the purpose of the project, to create a “user-centred life-long learning and development application”. Mahara is an open source portfolio application incorporating social networking. It aims to provide users with tools to enable demonstration of “life-long learning, skills and development over time to selected audiences” (Mahara, 2006).

The Australian ePortfolio project

Lifelong learning policy in Australia is based on assumptions about skills needed in a knowledge based economy. There is an increasing need for “work-related external training” and for “self-funded, self motivated participation” in both formal and informal education. The current policy emphasis placed on an “individuals’ co-financing of their own learning” ... “contradicts its stress on lifelong learning as a remedy for social exclusion”. The government recognises the “widening gap between the participation rates of people with high skills and people with low skills” (Watson, 2003).

Leeson (2008) noted that Australia is “only just beginning” to engage in the area of systemic ePortfolio development (p. 1). The Australian ePortfolio Project (AeP) is currently undertaking an examination of ePortfolio policy and practice in Australia through the investigation of ePortfolio engagement in higher education in Australia. The project is funded by the Carrick Institute for Learning and Teaching in Higher Education and is led by Queensland University of Technology in collaboration with the University of Melbourne, University of Wollongong and University of New England.

The goals of the project are to develop a clearer picture of ePortfolio engagement in Australian higher education. The project aims to progress ePortfolio engagement in Australian higher education and to position Australia in the international ePortfolio scene.

METHODOLOGY

A range of methods has been used, by the research team, to investigate current ePortfolio engagement in Australia. A literature review and environmental scan of ePortfolio use in Australia and internationally has been undertaken. A preliminary audit survey of the 39 Australian universities was undertaken. The project was formally introduced to all Vice-chancellors. Participants for all activities were actively sought by all project partners. A series of focus groups was held in Sydney, Melbourne, Perth, Brisbane, Adelaide, Armidale and Wollongong to engage with interested stakeholders across the sectors of VET, private consultancy, professional bodies, industry and the broader education sector. It was felt that focus groups provide a supported and dynamic environment in which people could discuss their current experience and understanding of ePortfolios. The focus groups were based on Krueger (1995) with 6-8 participants, 1 facilitator and 1 observer in each session. The research team decided that the topic of discussion, ePortfolio use, would be unlikely to elicit the type of sensitive material now considered inappropriate for focus group treatment (Farquhar, 1999).

The audit survey was piloted at Queensland University of Technology and by the project partners. The pilot identified a diverse range of stakeholders and led to the design of 3 different audit survey instruments to elicit responses from the learning and teaching; the human resources and the management sectors within institutions. Semi structured interviews were developed to engage key individuals and interested stakeholders unable to attend the focus groups. Student surveys were developed to gather user feedback on portfolio use. A student expectation survey was also undertaken with cohorts about to embark on ePortfolio activity. All surveys were offered online. The audit survey questions were deliberately open and exploratory. The other surveys comprised a range of open and closed questions to allow respondents to give full comment. In addition, the AeP ePortfolio Symposium was held in Brisbane on 6-8 February 2008. This was both an information gathering and sharing event. The event comprised a showcase of available ePortfolio software, international keynote speakers, student and expert panels and presentations. The

symposium was promoted through project partners and from the project website (Australian ePortfolio Project, 2007).

Grounded theory underpins the research methods used in the project. It is an inductive approach demanding that themes and concepts identified are grounded in the experience of the respondents/participants. The researchers did not approach the data collection with a priori hypotheses (Glaser & Strauss, 1967). This theory acknowledges the emergent nature of ePortfolio use in Australia and the need to identify a true picture of current engagement and to avoid any expectancy effect (Colman, 2006) resulting from prior engagement with the international ePortfolio environment and the scan of the international ePortfolio engagement.

DISCUSSION OF MAJOR THEMES AND ISSUES

It is outside the scope of this report to give a detailed discussion of the results. One or two key themes arising from the audit survey, the focus groups and the Symposium will be briefly discussed. For a detailed discussion of the data the full report of findings will be available from the project website from August 2008.

www.ePortfolioppractice.qut.edu.au

National audit survey

The nature and extent of ePortfolio activity in Australian higher is significant as it provides a benchmark or "snapshot" against which future activity may be gauged as well as providing a launch point for enabling strategies to be implemented. Of the 39 universities approached, 38 returned the audit survey. The non-respondent did, however, give the information that no ePortfolio activity was taking place in the institution. There were multiple responses from some institutions where activity was occurring in various locations for example faculty based initiatives. Responses were received from the Learning and teaching (L&T); Management (Mgt) or Human Resources (HR) survey perspective. The results show that institution wide ePortfolio systems are almost non-existent with only two universities having such a system. There is however a great deal of interest in ePortfolios and many respondents indicated they are "feeling the water" and "ready to go" when the right support eventuates. The L&T results show that most ePortfolio use is being carried out by undergraduate, coursework students in subject specific areas. Mgt and L&T data shows a diverse range of technology being utilized to support ePortfolio activity from purpose built applications, commercial software and social networking tools such as blogs and wikis. As

outlined in the previous sections, social networking tools are popular with students and it may be attractive to potential users to be able to use this type of application within an institutional approach to ePortfolios.

Focus groups

The major theme arising from the focus group discussion was the issue of interoperability. This may be due to the fact that focus group participants were from outside the higher education sector and were interested in possible transitions between their particular sectors and higher education. This issue is also common to the ePortfolio initiatives previously described in the report. Interoperability or flexibility affects the potential use of an ePortfolio tool across multiple institutions and systems, so the user effectively has access to their ePortfolio for life. Hartnell-Young, Smallwood, Kingston & Harley (2006), found that users need to be able to access distributed ePortfolio resources. Their lifelong learning activity suffers a setback when there are gaps such as may occur in transition situations, in and out of different institutions. They found it crucial to the lifelong learning process to be able to link between systems to join up lifelong learning episodes. Another important issue for lifelong learning was the issue of ePortfolio activity being mandated for assessment or available for voluntary use for personal planning and development. Yorke & Croot (2004), found that students considered ePortfolio activity a tiresome when it was mandated. One of the participants (an international student) suggested that the students themselves ought to direct ePortfolio activity within a unit or subject. Most people who discussed this point believed that ePortfolio practice must be encouraged for personal use even where it is also required for assessment.

Australian ePortfolio symposium

The symposium attracted over 200 enthusiastic delegates from interstate and overseas. Many of the delegates attended primarily for the ePortfolio Showcase event where ePortfolio software vendors displayed the technology currently available. Informal feedback was gathered during one of the project presentations. Keypad technology was used to gather audience responses. The results showed that delegates' experiences of ePortfolios aligned very closely with the audit findings. There were several themes of interest to lifelong learning. There was very strong support for learner-centred ePortfolios where student had total responsibility for the ePortfolio. It was also apparent that many of the delegates were seeking information on ePortfolios as pedagogy, a process and a way of

thinking rather than a technology. The student panel discussion provided valuable student perspectives on ePortfolio use adding further support to the need for flexibility, lifelong access and the functionality to allow students to work with their familiar social networking tools and incorporate the content into an institutional ePortfolio where necessary.

CONCLUSION

The report has provided a lifelong learning context for the Australian ePortfolio Project. The project is briefly discussed. Several major themes, arising from the data collection activities, which have potential relevance to lifelong learning for Australians have been identified. It has been suggested that ePortfolios may be able to support lifelong learning both in the formal higher education sectors and for informal learning opportunities. Projects such as the e-standards Expert Group investigation into ePortfolios in the VET sector and the Australian ePortfolio Project in conjunction with international events such as the International Lifelong Learning Conference may be valuable in progressing Australia's lifelong learning policy agenda to address the recognised gap between the participation rates of people with high skills and people with low skills by providing a means for all people to engage in ePortfolio activity, to document informal and formal learning for a diverse range of purposes.

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ENRICHING THE STUDENT JOURNEY FOR STUDENTS IN THE 21ST CENTURY: PREPARING LEARNERS FOR LIFE

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ABSTRACT

This paper describes new ways of providing seamless service delivery targeted towards critical areas of the Student Lifelong Learning Journey. CQU Student Services have implemented the Student Readiness Profile, Orientation Online and GOAS (Get Optimistic about Study) as support for students in order to increase their opportunities as learners for life.

KEYWORDS

student services – academic at risk – student learning journey.

INTRODUCTION

Tertiary education is an essential part of the journey of Lifelong Learning (McInnes, 2001). In a British National audit of Higher Education, Bourn (2007) emphasised the lifelong value of tertiary study to the individual (greater opportunities for life), the economy (higher education leads to economic growth) and to society (increased cultural capital). However the audit found less value was gained for all stakeholders when undergraduates failed to complete their courses as with 28,000 fulltime and 87,000 parttime students in Britain who enrolled in 2004-5 and failed to graduate. Bourn's conclusions were that institutions can improve the retention of their students if they employ a few effective institutional strategies. In summary, his findings were that universities must have a good knowledge of their students' characteristics, must be able to track the progress and achievements of their students, and must be able to identify specific areas of concern.

Towards meeting those ends Bourn recommended that institutions deploy more of their resources towards active engagement in the identification, tracking and support of vulnerable students.

Meanwhile Scott (2005) systematically explored a data base of 168,376 comments of 95,000 graduates of Australian universities by means of a qualitative data analysis system called CEQuery. One of the principal objectives of this data analysis was to improve the quality of service provided by the higher education sector in Australia. Among his findings were that 1) 10.9% of the students' judgment of quality was concerned with the support they received, 2) Student Administration and Support was a key area of needs improvement, and that 3) respondents' positive comments about university staff reliably predicted high ratings on all aspects of the tertiary experience. While Scott's findings

emphasised the importance of personal contact over technology, the study found that it was the total experience of a university experience which shapes students' judgments, motivation and retention.

The ability to hold students in their programs until successful completion is of social, financial and reputational interest to any university. For students, and those around them such as partners and families, this is also a crucial issue. The decision to pursue higher education is usually one that is taken after much thought about various implications, not the least of which are financial and personal. Achieving a university degree has the potential to contribute to a more prosperous future not only for a student but also for the many stakeholders who benefit from the successful outcomes of university study.

Bringing the results of these major analyses together (Scott, 2005; Bourn, 2007), universities who are committed to best outcome for their students are recommended to set the following targets for their institution.

1. The life of the student should be a whole-of university concern.
2. Know your student cohort
3. Take a pro-active stand through early intervention strategies
4. Track your individual student as he/she proceeds through to graduation.
5. Channel extra support towards students who are vulnerable to failure and/or attrition.
6. Provide quality service staff as the most effective point of contact with the student cohort.

CQU Student Services

While the above six recommendations are obviously central to a university's operations, service areas play a significant role in facilitating best outcomes. CQU Student Services (CQU SS) is a student focussed service which provides a variety of services for students ranging from Orientation, Student Mentor and Leadership

training to Personal and Careers Counselling and International Student Support. Positioned within the academic services portfolio of the university, CQU SS has direct liaison with each of the Faculties, works closely with Student Administration to coordinate the academic monitoring of students, and is well positioned to guide and counsel the student from the beginning of the first year experience through graduation onto work placement. In this position CQU Student Services approaches the description of Wilcox, Winn and Fyvie-Gauld (2005, p. 720) who observed that “the presence or lack of social support networks and supportive interactions is a major factor for students in deciding whether or not to stay or leave”.

The Student Learning Journey

The term Student Learning Journey was coined in 2005 to symbolise the interconnectedness of a variety of CQU areas which pave the way for students to move through their tertiary study program from enrolment to graduation. The Student Learning Journey framework provides a vehicle for the continuous improvement of all aspects of student life at CQU and a way for CQU staff to focus their professional development in student-centered ways. To first understand their student cohort the university formed a student profile from two key CQU data sources. These were the monitoring academic progress interviews, and ‘Staying at Uni’ telephone interviews. The following two sections examine these and how the feedback from these formed the basis for the three support initiatives of the Student Learning Journey which are the topic of this paper.

Monitoring Academic Progress

In March 2004, CQU SS began a three year research project aimed at formal monitoring and development of intervention strategies to assist academically at risk students towards satisfactory progress. It consisted of a structured interview approach that led the student to identify reasons for academic failure and to formulate a plan to succeed. The interviews were linked to CQU’s Monitoring Academic Progress Policy: Unsatisfactory Academic Progress. Students who fell into the unsatisfactory academic progress category were identified by Student Administration at the end of every term. Letters were then sent to students inviting them to attend a structured interview with Student Services staff where the reasons for fail grades were discussed, a support plan was developed and referrals were arranged. Each interview was guided by a set questionnaire which gathered demographic, financial, personal, social, educational and other related data to assist the student and the

interviewer ascertain what influenced the student to fail. At the end of the interview period, the questionnaire data was collated and analysed thematically.

In the three years to December 2006, 1,479 interviews were completed with students who had not made satisfactory academic progress over periods of one, two or three terms of enrolment. Major outcomes revealed that while flex (off campus) were the most highly represented in the ‘fail’ group, ‘failure’ is a complex issue. Consistent themes throughout the interviews were:

- Motivation. Approximately one in seven students interviewed showed evidence of high extrinsic motivation. This factor made the student vulnerable to the quality of personal contact with university staff so that consequently any negative contact with the university had a significant demotivating impact on the student.
- Unrealistic Expectations. This theme encapsulated students’ unrealistic expectations regarding the amount of time and commitment tertiary study requires. It was evident that for about one in six study was not a top priority with family, work, then study, being prioritized in that order. In other words, students expected university to fit into their lifestyles rather than anchoring their lifestyles around university. The tendency for some students to overestimate their academic ability in their chosen discipline was also subsumed under this theme.
- Reluctance to seek help was found in approximately one tenth of the sample. Students stated they were either reluctant to seek help or they failed to persist in seeking help. Only 12% of students stated that they persistently sought help once they were aware they had a problem or had failed.

Staying at University Telephone Interviews

From MAP interviews the most vulnerable students for attrition were identified as mature aged, studying more than 3 courses, living remote from a CQU Campus and studying in ‘flex’ mode. Two weeks prior to the commencement of Term 1, 2005, newly enrolled students with the aforementioned profile were phoned by trained personnel from CQU Student Services. The telephone interviews had two foci. In addition to providing a friendly welcome to CQU and information about university life, the Staying at Uni interviews rated the student’s

readiness for university along four factors namely their knowledge of university (e.g., Census Date), their understanding of the commitment (hours in employment versus number of courses), support contacts (Who is your Course Advisor?), and perceived problems (financial, personal etc).

While these pre-term interviews provided much useful information about the enrolling student there principal contribution to the Student Journey was to reinforce the effectiveness of early intervention.

The Student Readiness Questionnaire

Having obtained a current profile of our student population from the MAP interviews which provided a current CQU student profile, and having gauged the readiness of a select group of new students through the staying at Uni calls, the next step in the Student journey support process was to ascertain the vulnerabilities and needs of the individual student who begins study at CQU. In order to gather that data, the Student Readiness Questionnaire (SRQ) was developed and trialled in the orientation of students prior to term 1, 2008. The SRQ is a survey instrument containing 19 questions drawn partly from the structured questionnaire used in the interviews described above. It is provided to each student who has accepted their enrolment and is delivered through MyCQU Student Portal. A student's response to each question is given a weighting and a total score determined so that the higher the score, the more at risk of academic failure a student is deemed to be.

The data from the SRQ allows students to be classified along three levels of: high, medium and low readiness. All students who completed the SRQ were sent an email congratulating them on their decision to enrol in tertiary study, those who revealed that they were in high readiness for university were offered contact numbers for continuing support. Those who indicated medium readiness for commencing study were referred to resource areas and/or information surrounding their particular areas of need (e.g., students expressing concern about assignment writing were referred to the Communications Learning Centre). Those students who indicated low readiness were specifically targeted and assisted with the various intervention strategies that would support them as they commenced their learning journey.

The future focus of this strategy is to inform decisions about particular intervention strategies to support student learning. The data from the SRQ will be provided to relevant areas in the university including Faculties and other support

areas. Strategies will include a number of existing ones such as learning skills support, mentoring and study groups (face-to-face and virtual as necessary). Additionally it is envisioned that new developments such as specific modules be offered to low readiness students which are designed to develop their knowledge and skills in areas of identified need (for example, in information literacy, science literacy and writing in an academic genre). The various areas of the university will be encouraged to use the data in informed ways and to take early intervention steps to support student success in their studies.

Orientation Online

A second early intervention strategy *Orientation Online* (O/O) was piloted for the mid year intake in 2007 and implemented in term 1, 2008 for the full intake of commencing domestic and international, undergraduate and post graduate course work students located across the 14 campuses of CQU. The reasons for developing an online orientation were:

- To ensure that all commencing students are provided with accessible, essential information essential to their student journey at CQU.
- To avoid the information overload and duplication of the traditional orientation process by offering it in smaller chunks over a longer period of time prior to commencement of study.
- To raise students' awareness of implications of tertiary study. It is important that students have an opportunity to test their expectations.
- To assist students to self identify gaps in their learning preparedness early in their learning journey so they can complete skill sessions before university begins;
- To encourage students to seek help and raising their awareness of the availability of resources/people/information.
- To encourage students to form relationships within their student cohort and to become part of a community of learners.

All new domestic mid year undergraduate and postgraduate course work students are automatically enrolled in the blackboard course *Orientation Online* within two days of accepting their offer of enrolment. A link to the orientation online course appeared on the students My CQU portal. International students can not access this course until they are enrolled, which occurs after they arrive in Australia This is an issue which we are currently still working to resolve with the

assistance of colleagues on CQU's International Campuses.

Orientation Online is presented in 20 Snapshots introduced by a senior student. The content was developed and/or critiqued by approximately 50 staff and students before going out to trial. The topics covered include 1) institutional information e.g., training in the use of the Student Handbook, 2) personal information e.g., Stress Management, 3) rules e.g., summary of important policies, and 4) how to use the university's support lines. As at the 6th March, 2008, 4,714 students were enrolled in *CQU Orientation Online Term 1 2008* and:

- 3400 students had logged on at least once
- 392 students had completed the Successful Study Skills Self Test;
- 322 students completed the Time Management quiz;
- 250 students completed the Participation quiz;
- 867 postings were made to the various discussion list topics;
- 288 (6.1%) students completed the course evaluation.

Of those who completed the course evaluation 93% either agreed or strongly agreed that *Orientation Online* has provided valuable information about study at CQU; 78% reported that they felt more confident using the blackboard learning management system after completing *Online Orientation*; and 92% agreed that they were more aware of how to develop more successful study habits as a result of doing *Orientation Online*.

Psycho-Educational Support Programs

While early intervention has been accepted as the best start to tertiary study, universities struggle with the reality that students continue to fail for a variety of reasons so that some students remain in danger of attrition. Morgan and Tan (1999) found it difficult to differentiate successful from unsuccessful students as students from both groups presented similar factors which interfered with their study. The key to the different outcomes for each group appeared to be how students vary in their responses to the challenges of university life specifically how they cope with adversity and disappointment. According to Seligman (1995) optimism is a factor that apparently leads a student to greater resilience. Seligman (1995) studied the dichotomous explanatory styles of optimism and pessimism for more than 20 years before he developed an optimism training programme. In 1995 Seligman, reporting on this first optimism programme,

found that a decrease in depression and negative mood, increased social skills (popularity), higher academic achievement, and more creative problem-solving occurred with participants after completing an optimism program.

The potential for using this optimism training was then tested with tertiary students at CQU. A programme named 'Get Optimistic about Study' (GOAS) was adapted from the model of the Penn Programme by Seligman (1995) for use with tertiary students at Central Queensland University (CQU). As with Seligman's original programme the CQU programme consists of two main components: (1) cognitive therapy based on Ellis' identification of irrational thought patterns (Ellis & Dryden, 1987) and (2) techniques for identifying and changing patterns of pessimistic thinking. The two cognitive techniques used in GOAS are decatastrophising and disputing. The GOAS program is designed to partner the student through a term of study and, through application of the process, to address challenges such as assignment writing, coping with disappointment, motivation, stress and preparing for exams. All this occurs within a support group of fellow students.

The GOAS course was designed to be presented in fun and challenging ways with participants linked to peer support networks. Each week, one aspect of explanatory style is introduced which encompassed techniques and strategies for students to apply in their study life. For example one of the pessimism/ optimism dichotomies surrounds the aspect of time and whether a student views adversity as being permanent (pessimistic) or temporary (optimistic). Students are then asked to apply this principle to their own study situation. When they get a poor mark do they 1) Go and get help immediately (optimism) or 2) Feel defeated by reflecting how often this has happened in the past (pessimism).

In 2002 the GOAS programme was piloted in a small group format to students at Rockhampton Campus and was extended in 2004 to the Mackay, Gladstone and Bundaberg Campuses of CQU. In 2005 the same programme was reformulated for online delivery so that students studying in distance modes could access this course. Games and exercises of the original programme were converted to other modes of delivery including discussion boards, unlimited access to facilitators, and an audio/visual input for each session. The online course is now offered as a free non-assessable course for each term of the university calendar year. Since its inception approximately 600 students have enrolled and completed GOAS.

Students who have been identified as low readiness by their responses on the SRQ plus those who have been identified as failing under the MAP policy are the primary but not exclusive sector of students referred to GOAS. As the emphasis is on support rather than remedial action it is always preferable that students with specific needs and vulnerabilities be integrated into the main student population. Thus all students are eligible to participate in every intervention strategy offered by CQU Student Services which hinge on the three initiatives delivered by CQU SS which include the Student Readiness Questionnaire, Orientation Online and the Optimism Program GOAS.

Future Directions and Recommendations

CQU SS recognises that the three initiatives discussed in this paper require further development and to have their position formalised within the university structure. A number of options are available all of which invite closer liaison between academic, support and administration arms of the university. Information gained through the Student Readiness Inventory could form the basis of a seamless case management strategy for all students who warrant ongoing support. The course Orientation Online provides information and help that could become a 'required' part of the individual's orientation to university. Finally voluntary participation in the optimism Course GOAS could attract academic recognition from the particular faculty of their study.

CONCLUSION

Pearson et al., (2001) emphasise that, to enhance and widen the student's lifelong learning, the task of matching the expectations of university and student should occur as early as possible because students are prone to the 'first impressions' effect. Correct information and appropriate connection to the university must be part of early intervention, must be consistently offered both laterally (across the university) and longitudinally (through regular, particular contact with the student throughout the first year).

Early intervention means pre-term contact. This usually occurs during orientation which is timely for meeting the student's initial expectations of tertiary study. It is here that university requirements need to be articulated, and where students meet academic personnel and members of their student cohort. The CQU Orientation Online (O/O) package can now be accessed by students before they commence their formal term of study. This is additional to the more traditional On Campus, International and Distance Education Orientation sessions.

According to McInnes (2001) the success of orientation depends on academic departments taking a greater role in the orientation process and a continuous 'developmental' approach as the student progresses through to graduation. It is that desirability of ongoing academic orientation that is being actualised by better teamwork between support staff and academic staff in the three major initiatives being offered at CQU.

Orientation Online, the Student Readiness Questionnaire and the psycho-educational program Get Optimistic about Study can be evaluated against the six challenges of our current university services for students articulated earlier by Scott (2005) and Bourn (2007). It is helpful to recall them in relation to the three initiatives outlined in this paper.

1. The life of the student should be a whole-of university concern.
2. Know your student cohort
3. Take a pro-active stand through early intervention strategies
4. Track your individual student as he/she proceeds through the Student journey to graduation.
5. Channel extra support towards students who are vulnerable to failure and/or attrition.
6. Provide quality service staff as the most effective point of contact with the student cohort.

While further initiatives are currently proposed such as the streamlining of all CQU support services under the Navigate CQU mantle, this paper has attempted to describe how a student service area can provide an integrated support service designed to supplement academic learning hence equipping students with skills for productive learning through life .

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CONDITIONS FOR LIFELONG LEARNING

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ABSTRACT

Lifelong learning, I suggest, is dependent on and can be encouraged through the development of certain conditions. I describe these conditions as resulting in capacity, including awareness and understanding of both one's self and their environment. In this paper these conditions are introduced, based on an holistic approach to learning.

KEYWORDS

lifelong learning – capacity-development – self-awareness – identity – situational understanding

INTRODUCTION

In keeping with the theme of this conference, 'reflecting on successes and reframing futures', I begin with a very brief overview of some of the key aspects of the development of the concept of lifelong learning to recognise where we have come from and how it shapes our way forward. As Medel-Añonuevo, Ohsako, & Mauch (2001, foreword) note,

The philosophy of learning throughout life is anything but modern. Ancient societies all over the world have emphasized the need to learn from the cradle to the grave.

This is evident, for example, in Plato's, *The Republic*. Despite its ancient roots, a new paradigm of lifelong education was introduced to the world in 1972 in the United Nations Educational, Scientific and Cultural Organisation (UNESCO) publication, *Learning to Be: The world of education today and tomorrow*. This 'new' approach (at least to education, on a world basis) placed lifelong education in a humanistic framework, emphasising personal fulfilment. The general theme was education as a means of creating self-awareness.

More recently, however, there has been a shift in focus in much of the literature from education to learning. This is reflected in a key follow-up report released by UNESCO in 1996, *Learning: The treasure within*. This report identified four 'pillars' of learning for supporting lifelong learning in the twenty-first century: Learning to know, Learning to do, Learning to live together, and with each other, and Learning to be. Regardless of the terminology, in this report the focus on the role learning plays in personal development with repeated reference to self-knowledge and self-understanding is again striking. Lifelong learning, according to the report: "...should enable people to develop awareness of themselves and their environment and encourage them to play their social roles at

work and in the community" (UNESCO, 1996, p. 19).

Without getting into a detailed history of the developments with regard to lifelong education and learning in countries around the world, it is suffice to say that significant activity has taken place around this concept, and how it can be embraced. Burns (2000, p. 44) describes this activity as a "growing mandate from the late 1990's for lifelong education to integrate a constellation of individual, social and economic goals".

Despite this growing acceptance and enormous activity with regard to lifelong learning it seems there is still a long way to go given the continual discussion of lifelong learning and repeated affirmation of the need for the basic changes first outlined in 1972, both in reports produced by organisations such as the Organisation for Economic Co-operation and Development (OECD), the European Centre for the Development of Vocational Training (Cedefop) and the European Union (EU), as well as individual countries.

One reason for this may be that while lifelong learning has increasingly been cited as one of the key principles in the educational and development fields, there is no shared understanding of its usage. The diversity of understanding of this concept has been shaped by historical, political, economic and geographical factors.

Increasing, however, the dominant factor in these different characterisations of lifelong is the economic perspective. The economic based argument leads us to believe that skilled workers directly leads to improved performance and ultimately achievement of organisational goals, that is, that there is a direct correlation between the two. This is problematic because it leads to regulation, structure and formalisation of learning. This typically includes competency-based training systems and generally an over-formalising of learning. Hager & Halliday

(2006, p. 4) argue that we need to ‘recover’ informal learning and to do that we need a: “...different conception of rationalism which is much less deterministic than commonly supposed”.

Additionally, the overall result of drawing the attention of policy makers to the rhetoric of lifelong learning, is the paradoxical shift in the responsibility for developing learning opportunities for adults from governments to the individual and organisations. That is, an emphasis on individual, as opposed to a collective, learning experience. And as the lifelong learner concept has evolved into the idea of a learning society, this concept has also been raised in that context (Raggett, Edwards & Small, 1995).

Rather than approach lifelong learning from a systematic, structured, formalised and increasing individualistic perspective, I propose a more holistic approach, based on *capacity-development*. This notion requires that we leave behind the deterministic and reductionist approach to learning and take into account all factors at play in a persons’ life; it gets us back to where lifelong learning (and education) started, a beginning point centred in personal development, self-awareness, self-directed learning and generally, individuals with capacity to adapt and learn in different situations throughout their lives. This approach not only truly prepares a person for lifelong learning but also more fully enables workers to make better use of learning, especially informal learning. Consequently, regardless of the factors that shape the support and need for lifelong learning, it can in fact become a reality.

Capacity in this context can be thought of as a condition for lifelong learning – a condition necessary for attracting a person’s attention to learning, enabling them to learn, and benefiting from what they learn (individually and/or in a broader sense, such as socially or within an organisation)¹³.

This, in principle, is not different to what has been advocated before (by UNESCO and others researching learning in the context of higher education and work). However, rather than imagine that this will occur as a part of lifelong ‘education’, I suggest specific focus must be placed on first developing capacity as a pre-condition to lifelong learning, so that people are

able to learn gainfully throughout their lifelong. Furthermore, and perhaps more significantly, the departure or innovation in my proposal lies in the (holistic) approach in which I suggest this capacity is developed.

In this paper I introduce the concept of capacity-development based on a holistic approach, so as to achieve lifelong learning. To begin, I first outline what I mean by an holistic approach to learning. I then discuss the idea of capacity-development in terms of learning, to explain why it is a pre-condition to lifelong learning. Finally, this paper ends with some concluding remarks regarding the implementation of these ideas.

Holistic approach to lifelong learning

Learning is a dynamic phenomenon, involving a range of variables, and therefore can only be truly understood by considering the whole and acknowledging associated complexities. The idea of an holistic approach to learning is as ancient as the concept of lifelong learning but has not yet happened in practice, although the support for it is strong throughout the literature on learning.

The essence of these ideas was the basis of Dewey’s (1896) explanations of learning, which he described as ‘organic’ and ‘environmentally embedded’. Dewey’s ‘organic learning’ refers to a non-dualistic approach to learning, meaning it engages the whole person. Beckett & Hager (2002, p. 165) more specifically describe this organic type learning as having an holistic, integrative emphasis on learning that,

aims to avoid other dualisms common in educational writing such as mind/body, thought/action, pure/applied, education/training, intrinsic/instrumental, internal/external, learner/world, knowing that/knowing how, and process/product.

Holistic learning involves: the recognition that all the variables are relevant and important. This allows one to accept and acknowledge research resulting from a reductionist approach and based on ‘false dualisms’ (Hodkinson, 2005), but only such that they help advance an understanding of aspects of learning that are then considered as part of a whole. Indeed, “[h]olism accepts that a whole is constructed out of many smaller parts, but it considers that those smaller parts create, via interaction, more than the sum of the separate parts” (Baets, 2006, p. 20). It also raises awareness of the interdependent nature of the learner, whose self is characterised by a process of becoming, and the activity-based nature of learning which is experiential and collaborative (Beckett & Hager, 2002).

¹³ I note the use of the term ‘capacity’ is deliberate; refer McManus (2007) for a discussion of the meaning of the term and a comparison to other similar terms.

An holistic approach to learning exposes and embraces the complexity of learning and indeed the risks associated with it. The increasing support for an holistic, embodied approach to learning is partially founded in the recognition of the weakness in isolating issues and promoting them as focal points of a general theory. When simplicity and equilibrium are emphasised in research, problems or phenomena are studied in isolation from their context and mostly ignore mutual interactions (Prigogine, 1997).

The central problem with the fragmented, segregationist approach to learning is rooted in the decreasing relevance and validity of the current view of learning (for example, as described by Beckett & Hager, 2002, pp. 96-100). A segregationist and reductionist approach allows learning to be configured and re-configured in temporary and unhelpful forms, always ignoring relationality; an holistic approach overcomes this problem, as it is a more integrated approach. An holistic approach incorporates individual behaviour, emotion, social and cultural aspects of learning.

One main risk in taking an holistic approach is that every situation is rendered unique, and therefore difficult to generalise or theorise, that the whole becomes unwieldy and unmanageable, and that nothing will be gained but confusion. However, one cannot make sense of part of the picture or adequately address a small part without knowing and understanding the whole. Wheatley (2006, p.5) suggests that: “[t]he layers of complexity, the sense of things being beyond our control and out of control, are but signals of our failure to understand a deeper reality of organizations, and of life in general”.

Dealing with the complexity of an holistic approach

The traditional scientific view or “reigning paradigm of observation” (Baets, 2006, p. 37) has been the basis of the belief that people’s decision processes can be captured in rules (for example, with respect to human capital theory). Baets (2006, p. 37) suggests this has been overstated and infers the paradigm of objectivity has been brought into question as a result. Complexity theory, he claims, affords us new insight to better understand the dynamic relation between subjectivity and knowledge, extending educational discourses to cultural and ecological levels. These new discoveries (founded in science) must be incorporated into our approach to lifelong learning.

Complexity theory is the study of complex systems; and chaos is a particular mode of

complex behaviour, as is order. A complex system can at one time behave chaotically but on other occasions appear perfectly deterministic, a simpler behaviour. As a result, complex systems are described as unpredictable (Baets, 1998).

Complexity theory fundamentally questions causality, as it provides an explanation of the non-linear. It applies where there are many uncontrolled, unobservable variables which undermine any attempt to claim a cause and effect relationship. The individual components of a complex system adapt themselves in a process that is not centrally controlled and that ultimately leads to a whole of which the sum cannot be traced back to the behaviour of the individual parts.

Applying this theory to organisations as systems (Waldrop, 1992) and individuals (Maturana & Varela, 1980), as living systems, creates a new perspective: under this scenario, organisations are a group of components (people) which are interacting with each other and pursuing their own individual goals (self-organising). That is, these systems create order by themselves, by apparently modifying know-what and know-how as a consequence of interaction with the environment and its effects on actions and beliefs of the living system and others (Holland, 1995). Every process contributes to all other processes. The entire network is engaged together in producing itself (Capra, 1996, p. 99). And change is prompted only when someone decides that changing is the only way to maintain themselves (Wheatley, 2006, p. 20). Taking this perspective enables one to approach learning holistically in a manageable way.

Stacey (1996, p. 264) explains the implications:

What the science of complexity adds is a different theory of causality, one in which creative systems are subject to radical unpredictability, to the loss of the connection between action and long-term outcome. The purpose of the theory and the research is then to indicate how conditions might be established within which spontaneous self-organisation might occur to produce emergent outcomes.

Capacity-development and lifelong learning

Acknowledging that we exist within complex systems, and that individuals themselves are a form of a complex, self-organising system, necessitates that we accept that there is not a direct causal link between learning and performance as briefly outlined above. Instead, it is shown that individuals will set their own goals and operate in a self-organising way

(through their actions) to achieve them (Baets, 2006, p. 69),

Consequently, what is required is a means for encouraging, as far as possible, awareness and means for, and benefits of, alignment of individual workers' goals and their employer organisations. The critical learning that must take place then, must be about oneself and the situation one finds themselves, and how one can develop or grow to meet the challenges within that situation. I describe this process as capacity-development.

The link between capacity-development and lifelong learning is established through focus on enabling the learner to improve their self-awareness: an understanding of who they are, how they learn, what motivates them, and why they do what they do (in the context they are operating in, such as social or work, although this would necessarily encompass personal issues). This may require the learner to be able to deconstruct their predispositions (Heidegger, 1962) so that they can better understand why they interpret a situation as they do and be more aware that others may see it differently. That is, by coming to know oneself, it helps to know others and ultimately the environments and situations one finds themselves. Hinchliffe (2006, p. 107) explains this 'situational understanding' as:

...providing the dimensions through which situations can be researched – in respect of meaning and flourishing. Moreover, by giving the activity of research a situational focus it is transformed from a pursuit undertaken by the discrete individual into one that is a shared, joint endeavour whereby persons can test and try out their different understandings.

As such, capacity-development draws the learners' awareness not only to themselves, but to their situation or environment (on various levels) and encourages them to begin to rationalise how the two function together – and if they do not function well together, how the differences can be minimised or eradicated.

So not unlike the existing literature relating to lifelong learning, what I advocate for capacity-development includes development of 'skills' around learning. What, however, is evident in the literature is a narrow conception of skills largely based on an atomistic view of learning, focussing on either the individual or an organisation (social). The *relationality* of these is not addressed. Additionally, we are generally operating based on the flawed assumption that there is a direct causality between training or

learning and being effective (at whatever it is we are learning about). For capacity-development (and designing learning using an holistic approach) there is a need to focus on linkages, giving prominence to relationality; the individual and social dimensions necessarily are inextricably linked throughout the development process.

As noted above, an emerging body of work which applies complexity theory to organisations and individuals provides an explanation for, and ultimately a way to deal with, this relationality and interdependence (refer for example, Antonacopoulou, 2006; Baets, 2006; Stacey, 2007; and Wheatley, 2006). Applying this concept enables actions and experiences to be used in developing capacity in learners. A more recent focus on agency and its relevance has begun, which contributes to the application of these ideas in practice. Beckett's (2006; also refer Beckett & McManus, 2006) work enables a better understanding of agency, a more 'holistic agency' theory, where the whole is presented in such a way as to understand context and 'will-ful action'.

The benefits of understanding the role of agency in learning can be reaped through holistic and integrated enaction of relevant learning strategies promoted in the literature on learning. This approach does not isolate one specific idea as key, but embraces the core of each of these ideas, reconnecting them in a situationally specific way to the whole – the whole person and the whole situation (for example, the workplace). Thus agency is shown to be inextricably linked to self-awareness and thus identity. That is, it is designed such that learners can be inwardly focussed, and develop as individuals, within their outward context, thus developing capacity in a particular context. This capacity is four fold: capacity in the sense of potential, capacity to grow and adapt, capacity to be more attuned to one's environment, and capacity to better focus efforts on activities that will create positive outcomes (and in the workplace this includes benefits for the worker and the employer).

In consideration of developing this capacity then, the connection between action and self-awareness or identity must be taken into account. In the context of workers' identity in an organisation, Stacey (2003, pp. 331) presents ideas regarding learning as the activity of *interdependent* people, where he claims learning: "can only be understood in terms of self-organising communicative interaction and power relating where identities are potentially transformed". As a consequence, Stacey points

out that learning gives rise to anxiety because it challenges the learner and their identity.

The essence of the foremost argument in support of recognising the significance of agency, is that learning changes the learners. Notions of the self, especially as these revolve around self-efficacy, self-determination, and self-belief, are shaped by learning and potentially educative practices. In short, these practices are agentive; they imply and invoke identity construction and re-construction, not merely for the individual, but also inter-subjectively. And consequently, it is argued that agency shapes selfhood, or identity, in ways that have a direct bearing on certain educative practices for adults (Beckett & McManus, 2006).

The idea of capacity-development then, encapsulating agency and identity in an holistic way, shifts us closer to the goal of achieving lifelong learners; learners with self-awareness and situational awareness.

CONCLUSION

The core focus of this paper has been to present an argument that lifelong learning is best achieved by first developing capacity in a learner to learn, and continue to adapt and learn as their circumstance change. The argument is premised on a claim that an holistic approach to learning is essential. That is, all aspects of learning need to be addressed. Typically this position is supported but not applied in practice, due the widely held belief that to do so would be unmanageable. It is proposed, however, that if we shift our understanding of people and environments in which they operate (such as organisations and communities) to take account of complexity theory then this is in fact possible. Complexity theory provides an explanation of the driving forces of complex systems and thus provides a way of understanding them as a whole such that we can impact on them. Not in a direct cause and effect way, but by providing the learner with an understanding of how they operate and why, and thus an opportunity to reflect on that and adjust it, if desired. Critical to this approach is to understand that individuals are self-organising, they set their own goals and act for the purpose of fulfilling them.

The next crucial step is to explore ways of applying the notion of capacity-development presented in this paper in a range of situations. It has been implemented, with great success thus far, in the workplace (Beckett & McManus, 2006). This could be expanded to other situations in life. But ultimately, with wider acceptance of the need for capacity to learn throughout life, I hope that the necessary

conditions are developed early in life, beginning with primary and secondary schooling.

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ADAPT AND OVERCOME: EVERYDAY LEARNING IN THE ADF

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ABSTRACT

This paper concerns fifteen Australian Defence Force (ADF) workers. We argue that these ADF workers are constantly confronting change as they negotiate workplace learning. Using a grounded theory approach analysing semi-structured interviews, a prime concern identified for respondents was finding their place and becoming members of a community of practice.

KEYWORDS

workplace learning – community of practice – informal learning

INTRODUCTION

In the last decade of the twentieth century and the first decade of the 21st century there has been considerable change in the workplace and workplace practices. In this paper we share our research focusing on how a particular group of Australian Defence Force (ADF) workers perceive their experiences of transitioning to a new work role involving a change of geographical location. The purpose of the research was to gain an insight into how these particular workers manage their continual change in workplaces as part of their lifelong learning in the military. We wanted to know how they learnt to 'fit in' to a community of practice, enabling us to then reflect on the success of a specific community of practice.

In a military workplace context there are various factors present that are not present in more mainstream workplaces; such as potential transfer to armed conflict, security issues, regular posting cycles and the performance of military rank, thus constructing a unique environment called the ADF workplace. In this research we have focused on WASP (pseudonym), a sub-unit of the larger ADF workplace, which is a military establishment comprising a high security environment with state-of-the-art technology. We would argue that these factors, plus others, influence how these particular workers learn to 'fit into' this workplace.

Our respondents undertake formal learning in the workplace as a part of Competency Based Training (CBT) programs. These competencies assist workers to develop workplace capacity. After completing their courses, the respondents were assigned to an operational crew working shift-work. This shift-work routine consists of four 12-hour working days, made up of two early shifts and two late shifts, followed by four days off. This routine repeats itself to make up one

WASP shift-work cycle. The working day is broken up into the following activities: conducting operations that required intense concentration; periods of resting from these operational periods; military like duties such as physical training and weapons handling; general administration, and attention to personal medical/dental needs.

In addition, we argue that these participants undertake informal learning as a part of the everyday workplace activity in order to 'fit into' this workplace. It can also be argued that informal learning at the workplace is part and parcel of the ordinary texture of workplace activity and has a holistic character, appearing to be a seamless experience embedded in the activity of the workplace (McIntyre, 2000; Hager, 1999). Therefore it is not easy to separate out informal learning however in this research we attempt to separate informal from formal learning by exploring the lived experiences of the workers. By exploring the lived experience we can gain an insight into how these particular workers see themselves as lifelong learners in a changing workplace and what they do to become members of a particular community of practice. Our research question asks "How do a group of ADF workers become members of a successful community of practice when they are subject to multiple postings? We contend that within the socio-cultural context, informal learning plays a vital role in the construction and transformation of identity that subsequently enables the worker to find 'their place' in that community. This has implications for how the ADF worker frames their future deployment readiness – a state of combat preparedness and participates in the day-to-day activities of the workplace.

THEORETICAL FRAMING: LEARNING IN THE WORKPLACE

Lave and Wenger (1991) argue that learning is an integral part of human activity mediated by the socio-cultural context of the workplace in which it occurs. This socio-cultural dimension presents knowledge, not as an unarguable fact, but rather as something continually changing as

people confront or negotiate new situations and activities enriching what they already know (Brown, Collins, & Duguid, 1989). During this negotiation individuals can move from novice to master in a community of practice learning through situated learning (Lave & Wenger, 1991).

According to Clancey (1995) situated learning involves the dynamic construction of information as it happens to us through talk and action. Chappell (2002) suggests that this view demonstrates a shift from seeing information as content and learning as acquisition of information to the active construction of meaning by learners situated within reality. Therefore knowledge can be seen as a complex, fluid mix that is somehow formally structured, tacit and difficult to frame completely in logical terms (Davenport & Prusak, 1998). As well as describing knowledge as tacit and explicit, Eraut (2004) breaks knowledge into three parts: codified, cultural, and personal knowledge. Codified knowledge is knowledge that is embedded in texts, databases, correspondence, work instructions, manuals, and so forth, whereas cultural knowledge is socially centred. Cultural knowledge allows people to understand how to act, here, at this particular workplace.

Wenger (1998) considers learning through participation in a community of practice encompasses the construction of identity and belonging in a socio-cultural context. Wenger (1998) considers that participants are on a trajectory of participation that is unique to the individual and mediated by the forces and tensions associated with the individuals interacting with others and the workplace environment. Boud and Garrick (1999) assert that individuals undertake learning at work for two main purposes: the first is to contribute to organisational performance and the second is for more personal development. Expanding on this notion, Billett (2004, p. 321) asserts that workplaces, as a context for learning, need to be seen as more than “physical and social environments; they need to be understood as something negotiated and constructed through interdependent processes of affordance and engagement.” What this means for this paper is that we can argue contemporary research about workplace learning has produced a shift in thinking about knowledge as something tangible to a more complex view of knowledge existing “within people, part and parcel of human complexity and unpredictability” (Davenport & Prusak, 1998, p. 5). This draws attention to the role of informal learning as a social and cultural activity shaping and being shaped by the context of that environment.

METHODOLOGY

Fifteen respondents participated in semi-structured interviews of 45-60 minutes each during their first week at WASP, then again three months later. All respondents successfully completed a formal CBT course between the interviews. Using a grounded theory approach (Strauss & Corbin, 1989) interview data was initially coded and categorised under emerging themes.

An initial theme was *required to come to this posting* that allowed us to start from the position that all respondents were required to come to this workplace but all came for differing reasons. Our use of the code *required* has enabled us to establish that respondents arrive as individuals with a multiplicity of differences making up their subjectivities (Hills, 1998). This demonstrates that although these workers work within a rigid organisational structure with prescribed performances, there is fluidity of subjectivity as they negotiate their workplace and their work roles. Two other major codes were *touring* and *sexy work* that indicated reasons for pursuing this particular new posting and demonstrated to us reasons for why our respondents wanted to make this posting successful.

Data was coded under the heading of *touring* when respondents indicated that they either joined the ADF to experience new things or had decided to move within the ADF to experience new things. Dave commented that although he had not expressed a wish to come to Adelaide he was going to make the most of his time in Adelaide. Likewise Arthur and Craig saw postings as a routine part of their work, as well as seeing other opportunities open up because of these postings. Therefore there is an underlying motivation to make the posting ‘successful’ during their tenure at WASP. There was also an attraction associated with the type of work undertaken at this site. There was something *sexy* about being at WASP that was solely due to the nature of the work performed.

The code *sexy work* referred to WASP as a preferred place to work. Respondents showed interest in the technology of the systems in the new workplace, that the work is valuable and directly contributes to the security of the Australian people. For example, Arthur, Dominic and Bill all wanted to come to WASP because of its internal reputation as a desired place to work. The complex electronic systems are novel and unique in Australia. This added attraction is another reason why these workers wanted to ‘fit in’ as this desirability can be connected to their identities as workers in this

context and possibly the gaining of a certain kind of status within the larger ADF. These three initial codes provided evidence of a strong incentive among individual respondents to make this posting 'work'; this meant there was an underlying desire to 'fit into' the new role and workplace and established a starting point for us to determine how they then went on to facilitate this act of 'fitting in'.

By drawing on such concepts as communities of practice and workplace learning we argue that through participation and engaging with both internal and external discourses the WASP team learn how to 'fit in' with the requirements of each new workplace that they encounter and still maintain a military readiness for potential and future deployment.

FINDINGS AND DISCUSSION

Lifelong learning can be seen as a site of competing discourses (Danaher, 2006) as can the military workplace. On the one hand ADF workers perform specific military rank and associated roles and on the other these same workers are positioned by those mechanisms. These we refer to as internal discourses. There are also external discourses that include postings and security processes that define how these workers engage with the workplace. Similar to other workplaces ADF workers are in constant movement across job roles, responsibilities and geographical location. In mainstream workplaces this is called "transfer" however in the military workplace this is called "posting" with constraints that make this concept slightly different to "transfer". In the ADF, "posting" is characterized by limited tenures in any geographical locality, are mandated and involve promotion. When a person is promoted it is highly likely to involve a change of not only geographic location but also include a change of job role and responsibilities. Consequently the ADF workforce can be seen to be in constant flux resulting in an incremental and complete changeover of staff every three to four years. An added dimension is the mandated security processes and procedures associated with WASP. ADF workers come under the Commonwealth Secrecy Act and therefore must adhere to specific security practices and procedures. Both internal and external discourses influence the ways in which people engage with and perform in the workplace.

We argue that respondents learn how to perform as ADF workers of a particular military rank and work role because of the nature of postings and the expectations of military life. This signals how the respondents have internalised both codified

and cultural knowledge of the particular workplace (Eraut, 2004). Once the ADF worker learns the expectations of military life and where they fit according to rank in the broader ADF workplace, they can use this knowledge to adapt and become members of a smaller localized community of practice. This shows the development of what Eraut (2004) refers to as personal knowledge. Using these three types of knowledge then enables the worker to interact within the workplace.

Useful here is the concept of performativity (Butler, 1990; Braidotti, 1994) that allows us to explain the interaction within the workplace through discursive construction of military rank and deployment readiness. The performance of military rank is actively constructed by the respondents through positioning themselves and also being positioned (Harre, 2004). Rank is worn in a similar manner to military uniforms as indicated by the following example: Arthur reported that a colleague, who was sitting at his desk, answered the phone. On answering the phone he stood to attention when he realised that he was speaking to a high ranking ADF officer. While amusing for staff in the vicinity, this performance highlighted that military rank is a state of mind and the performance of repeated acts, norms and gestures that constitute 'the allusion of an abiding' person of a particular military rank (Butler, 1990).

Adapt and overcome: Finding one's place

From our data we determined that most of the respondents viewed themselves as being part of a close-knit team work-wise, thus making up what Wenger (1998) described as a formal work group or community of practice. The respondents also reported a sense of identity and feeling of belonging to a particular group and that they enjoyed being a part of the workgroup. They reported a sense of camaraderie, collaboration, and looking out for the well-being of each other. Part of this sense of belonging and looking out for each other can be seen as a way of contributing to the organizational performance of the unit. This cohesion also allows for personal development as individual group members learn to work together in a successful team. As Boud and Garrick (1999) suggest these two purposes underpin learning at work and can be seen as a signal of successful team building.

Because of this closeness a sense of camaraderie developed among the 15 respondents and because of the type of workplace context, coupled with the internal and external discourses impacting on this workplace, it can be argued that in forming this work based team we see

these workers as becoming a localized community of practice. That is, a localized community of practice – WASP - within a broader community of practice called the ADF. These respondents already know how to function within the broader military workplace and understand the expectations of the ADF. However these respondents were still required to learn new job activities (moving from novice to master) in an environment where everyone was new to the specific workplace (forming a new work team).

Because our respondents are continually confronted with change in their workplace environment they cannot rely on habituated responses. This is because they are interacting across multiple sites as ADF workers with other ADF workers. They are expected to come and go from their regular workplace to maintain “deployment readiness” doing such activities as small arms handling, parades and fitness training. Therefore they inhabit spaces within and beyond their assigned workplace and are interacting with more than just their immediate community of practice. We would therefore argue that these particular workers are in a constant state of change and are continually finding their place within these required activities or expectations. *Their place* is not a “destination or final location; rather it is a ceaseless process where one continues to become” (Hills, 1998, P. 134). In engaging with continual change these workers are learning their place within WASP and also within the larger ADF organization. *Their place* is a concept used to articulate the relationship between the individual, the social, and the forces and tensions that exist in the workplace (Wenger, 1998). *Their place* also indicates a space where these respondents negotiate multiple discourses that construct their identities as workers, as soldiers, as parents, sons and daughters, thus highlighting multiple subjectivities (Moore, 2003). This negotiation takes place within a constantly changing environment where organizational discourses re-inscribe discourses and performances of military rank and procedure. These workers also negotiate ‘deployment readiness’ at the broader ADF level and ‘WASP development’ or postings at the local level, establishing multiple interactions across and among levels of the ADF organization. The perceptions of the fifteen respondents demonstrated the ways in which each person individually negotiates their multiple subjectivities and competing discourses within a specific organization through informal learning (Moore, 2003).

Implications

Through the ubiquitous workplace discourse about postings and constant reflections of postings – either about to be posted or having just been posted – our respondents are in a continual state of change or transformation. This migratory discourse includes stories of the past, reflection about the present posting, and the framing of future moves. This discursive terrain is caused by the nature of the context precipitated by ADF staff being in a constant state of “deployment readiness”. This demonstrates the way in which this community of practice can be seen as more than just the social and physical environment but rather a space that is constructed through a particular kind of engagement (Billet, 2004). In other words if the worker is not required to be deployed to armed conflict they are nevertheless still kept in readiness for yet another posting thus focusing on the migratory nature of the ADF employment, both in the subjective realm and in framing the future of the worker’s next position. So here we have a situation where workers are moving in and out of workplaces in order to maintain a military readiness role, moving in and out of the workplace to conform to military posting cycles, plus doing the usual day-to-day workplace activities of various ADF units, highlighting what Wenger (1998) refers to as a trajectory of participation. This has implications for how teamwork is maintained in an environment of constant change and how this change is managed within the broader ADF. This also has implications for how the military hierarchy support their staff in and between postings.

CONCLUSION

The notion of respondents finding *their place* at WASP is an essential characteristic of being the ‘good’ ADF worker. The ADF worker learns how to ‘fit in’ through informal learning from knowing the expectations, routines and performances that take place in and of the ADF workplace through localized communities of practice. Knowing ‘how’ to fit in comes from being part of the larger ADF workplace while finding *their place* comes from learning to how survive as part of ‘deployment readiness’. Moreover, it can be concluded that the respondents’ prime concern was to find *their place* at this ADF workplace during current postings in order to not only maintain a state of readiness but also to exercise control over the nature and quality of their life (Bandura, 2001).

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THE FLEXIBLE MODE PROGRAMME: BOTSWANA: A NOBLE INITIATIVE THAT CAN BE IMPROVED

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ABSTRACT

This paper investigates an ongoing graduate educational management program in flexible mode, introduced in Botswana in 2000. Results of the investigation have revealed, despite the program's popularity, certain shortcomings associated with insufficient learning resources, inadequate communication and time constraints. Recommendations are designed to sustain students and tutors towards more successful outcome.

BACKGROUND

The development and massive expansion of secondary education in Botswana particularly in quantitative terms at independence in 1966 and thereafter, resulted in a shortage of qualified school heads. As a consequence teachers have been promoted to head schools without training in educational management. For a long time school heads were mainly expatriates until the introduction on the policy on localization of senior post in the public service, including schools. Initially heads were exposed to short in-service training courses and some were sent for sent for training mainly in the United Kingdom. Important as these efforts were they were outpaced by the expansion of secondary schools which quadrupled from 56 in 1984 (Republic of Botswana, 1984) to 233 in 2000 (Ministry of Education, 2002). This state of affairs strengthened the case for the need to train more school leaders.

The Botswana Government entered into a partnership with the University of Bath who were offering a modular based distant mode training. However this arrangement was turning out to be costly. Subsequently, the Ministry of Education negotiated with the Department of Educational Foundations in the Faculty of Education in the University of Botswana to offer a similar program to the Bath one. After a series of meetings the flexi-mode program was inceptioned in April 2000 with massive savings for the government and attracting more students including self-sponsored ones. Four years after the program had started it became apparent that the submission of assignments was disturbingly slow.

Structure of the Flexi-mode Program

The program includes twelve three-credit courses and a twelve-credit research essay. The number of courses, their weighting and assessment, are in accordance with the General Regulations of the University of Botswana Calendar

(2005/06:45.5.1) for full-time and part-time graduate students. The program combines distance learning with residential teaching. The students attend block teaching sessions that last for two weeks at the end of each school term in which two modules are completed and for which they are given take-home assignments. Communication between the students and the tutors is mainly by phone. The assumption was that all these students would have access to the University of Botswana Library. The problem was really that many of the students were from far away places. Students have up to twelve semesters to complete their studies as per the graduate school regulations. However it became evident that many students especially those in the first two cohorts would not be able to meet the deadline. Between April 2000 and October 2007 only 17 students out of the 67 registered students had graduated. As a result of this the Ministry of Education has agreed to give two terms off from work to remaining students to complete their studies.

Aim of the Study

The study is aimed at investigating reasons why the completion rate for the Flexi-mode students is low. Basing on the informants' views, the paper will make proposals that can inspire and sustain students' staying capacity in the program. The following questions are intended to aid the achievement of this aim: From the point of view of the students and the lecturers:

1. Why do students fail to submit assignments?
2. Why do they submit assignments late?
3. How can the students be motivated to work harder?

Literature Review

The contact hours of the flexi-mode students are almost the same as those of the full-time and part-time students. The former's contact hours are concentrated on six continuous weeks in a year whereas the latter enjoy a wide spread contact period. The flexi-mode learner is alone

for most of the time. Basically, the flexi-mode learner is a distance education learner. Mikko *et al* (2005) refer to such learners as on-the-job learners and that in Finland such mode of learning was premised on the labour market value of education. In Hong Kong the move towards similar programmes were premised on the idea that learning occurs throughout the course of an individual's life as knowledge keeps on depreciating (Weiyuan and Tak-Kay 2006) and in Botswana the Government had realized the need for a skilled and educated school leadership. The literature review of this paper will be informed by literature on distance and lifelong education. Distance or lifelong education represents a variety of educational models that have in common the physical separation of the students and their instructors. This separation leads to communication gaps between the instructor and the student which have the potential to cause misunderstanding (Moore and Kearsley in Barbadillo 1998). The separation presents a challenge in the way instructors approach distance education students to plan, present content, interact, and perform other processes of teaching. This in many ways is different from the face-to-face environments of campus students in that distance education can deprive the student of the breadth of knowledge associated with sharing ideas and experiences in organized formal and non-formal settings for a sustained long period with other students; a lost opportunity to the learner (Schuetze 2007). Although distance students may be separated from their instructors for most of the time, they do have access and interaction with campus library services although to a lesser extent than those on campus.

For the individual to continually sustain distance, part-time and flexi learning, he/she should be self-inspired, self-motivated and must have self-resolve. For the self-sponsored student particularly, the decision to enrol in distance learning can be a difficult one (<http://www.ferrcuni-hagen.de/ZIFF/PETERS1.htm>). Distance learning students usually hold jobs, have families, live off campus and are older. "They want what they want, when and where they need it and at a price they can afford" (Levine and Jeffrey 2002:3). Ostensibly, they want convenience and affordability in terms of time and finance.

The flexibility of distance education, offers practitioners the alternative to fulfil their needs for self-development and advancement (Peddler *et al*. 2001). In developed and some developing countries, new trends to distance education offer

multimedia technologies such as computer-mediated learning, particularly internet-mediated learning (e-learning) that substitute much of the traditional dependence on book prints (Stokke 2004). In many advanced educational systems in the world, due to the rapid technological development, courses are being delivered to students using a variety of media in various locations including remote geographical areas with increasing interactivity between student and teacher. The new technology has made feedback on assignments much easier as compared to the traditional surface and air mail systems. Using the new technology assignments can be submitted and marked through the email. These efforts are made to serve the educational needs of growing populations (Barbadillo 1998). The USA, the UK and Canada lead in this respect by their continual review of distance education programs to reach as many of their clients as possible through the quickest possible means. In some universities in South Africa, notably the University of South Africa, reading materials in the form of modules and material from journals are distributed to students to facilitate their assignments.

Botswana as one of the few countries with a relatively advanced telecommunication system in the region and among the best in Africa (Commerce and Industry 2000), has the capacity to provide distance education through the sophisticated media mentioned above. However, this capacity has not been fully exploited in the provision of the Flexi-mode. The constraint could be due to the fact that most of the program instructors were/are not familiar with e-learning teaching. The other problem was that most of the students on this program from the remote areas did not have internet. The University of Botswana flexible mode model is limited to mainly two models out of a variety of other models of distance education. These two models are described in <http://www.umuc.edu/ide/modldata.html> 3/6/2006 as interactive communication and independent learning. The interactive communication model allows students the opportunity to interact with others in discussions, whereas in the independent model the student is left on their own for most of the time. This approach enables students to see their own familiar practices in fresh ways and this can encourage them to change their practices within their usual daily workplace (Goddard, Fisher, Kinchington and Cobb 1999). Also, the Flexi-mode students, being regular workers, are offered the opportunity to concretely relate practice to theory immediately as they can learn skills 'today' and practice them the 'next day'.

The learner in distance education/flexi mode deals therefore with live problems rather than being taught which is a major source of significant learning (Moswela 2005; Peddler *et al.* 2001). To the in-service teacher, a topic on teaching methodologies, for example, would make more sense than to a pre-service student teacher as the in-service student can immediately relate their current practice to theory (Peddler *et al.* 2001). Current debate on in-service programs such as the flexi mode is that knowledge on its own is not enough. It needs to be transferred to real life situations in order for it to be more meaningful (The Times-Higher Education Supplement 2006). The immediate blending of practice with theory purported by Goddard *et al.* (1999) is described by Schon (1983) in Yoong and Cervro (2005) as reflective practice which should not be confused with problem solving. Reflective practice, Schon argues, is not necessarily a process of problem solving. Rather, it is about making sense of uncertain experienced situations. To the student who pursues studies concurrently with their job, Schon further argues, distance learning is a conversation between practitioners or professionals about their experiences in the workplace. In the case of school managers, they are able to discuss the learning and teaching behaviour of their students and teachers and discuss issues of school funding and the general micro-politics of education. Such formal and informal interactions between student practitioners pursuing a common goal (the quest to provide quality education) can offer some emotional comfort and reassurance to individuals as they discover that what they perceived to be problems peculiar to themselves and their schools only are common problems to others as well. In this sense the Flexi-mode in particular, as distance education by the interactive communication mode, is a practical way of learning because it addresses practical issues. A study on the Danish Vocational Education and Training distant education program for sales assistants that combined 40% school-based theoretical and practical training in a commercial school and 60% on-the-job training revealed that such an arrangement “strengthened the trainees’ position in the community of practice, the workplace” (Vibe 2005: 145).

METHODOLOGY

The study undertaken is a survey conducted on the course participants. The researchers believe that in order to obtain quality study outcomes, people directly involved in the program should form the core population. On this basis, the study targeted the students and their tutors. A population selected on this basis would likely provide knowledgeable, thoughtful and reflective

experiences on the subject (Swisher and McClure 1984). Specifically, such informed input would draw from the students’ knowledge of their tutors and from the course; and also from the tutors’ knowledge of the program and the behaviour of the students during their interaction with them. This approach also draws from Daniels and Garner’s (1999) perspective on purposive sampling. The number of students who enrolled between 2000 and the time the program was suspended in 2005 was sixty seven (67). Only Forty four (44) students who were accessible participated in the study. All the tutors (10) were targeted for the study but only six responded.

Data collection

The data collection method combined the close-ended questionnaire type that requires a single response, either in a four-point scale or a yes/no response, and the open-ended type that required respondents to think, in a semi-structured way, about themselves and the program in relation to its effectiveness. The advantage of the latter method over the former is that it probes in-depth information and offers more clarification of responses (Bogdan and Bilken 2003). By combining the two data collection paradigms (part quantitative and part qualitative), the study exploited best use of strengths for both of them (Moswela 2005). The questionnaires were pilot tested on a group of M.Ed. full-time and part-time students.

Procedure

The researchers administered the questionnaires to students who came for consultation during their vacation time. Those who did not come to the university were sent the questionnaires by mail.

Findings (from the students)

The findings were obtained from 31 (70%) of the total student sample. All the student respondents expressed the view that the Flexi-mode is a good and noble program; it is very essential and very rich in content and it could be extended to the Department of Primary Education. Four main reasons emerged as impediments to the students’ work. Suggestions were subsequently made as to how these impediments could be addressed.

Workplace demands

All the respondents’ cited demanding workload at their work places as affecting their studies. This concern has been expressed from the sampled individual students’ response to the question as follows: Why are you behind with your assignments or research projects? In particular, some of the respondents noted that “The volume of work at the workplace keeps on

increasing since the introduction of innovations like Performance Management System.” Another comment was that “The Department of Secondary Education has underestimated the workload involved in the flexi mode. More time for personal study away from the workplace should be given to the students”. One of the suggestions for improvement was that “Once the research proposal has been approved students should be given six months sabbatical to work on the research. Some even suggested a whole year”.

Students are slow with assignments and Lecturers delay with feedback

Eighteen (58 %) of the students blamed lecturers for taking too long to mark assignments. This has been expressed through sentiments such as “lecturers should give prompt feedback” and that “strict submission deadlines should be set and penalties imposed where necessary”. Twenty seven students (87%) experienced communication gaps with the research supervisors or lecturers.

Program overload

Thirteen (42%) of the students noted that the courses for the program needed to be reviewed and reduced in number, arguing that “twelve was just too much”. “The program is too packed and teaching is crammed into very little time”, remarked one respondent in support of a reduction in number of courses.

Distance from the university library

The students’ distance from the university library was reported to be a serious impediment to their studies. Out of the thirty one respondents, seventeen (55%) were faced with this problem. This is a particular problem facing the students working in rural areas.

Findings from tutors

There was a sixty percent (six out of ten tutors) return rate of the questionnaires. All the tutors agreed that students are slow in submitting assignments; students do not finish their research projects on time and the number of supervisors need to be increased. Most of the tutors (83%) said that some of the students had not submitted any assignments at all at the time of this study. Slightly over two thirds (67%) of the tutors agreed that there should be a fixed time-frame for the completion of the program. Furthermore the tutors made several suggestions including the call for a reduced number of taught courses; preparation of reading materials/ modules and that lecturers involved in supervision should be given a lighter teaching load.

ANALYSIS AND DISCUSSION

The research sought to investigate problems encountered by students in their studies and how these could be addressed. The quantitative and qualitative components of the data are discussed concurrently. There is general agreement between the students and the tutors that the former take time to submit their work whilst the latter are slow in giving feedback. The slow rate has been attributed to three prominent themes that emerged from the findings. These themes will form the basis of the discussion in this section.

Students’ and tutors’ workload

Reiterating the respondents’ (students) view that the Flexi-mode is a good in-service program, The Times-Higher Education (2006), Vibe (2005) and Schon (1983) have also applauded programs such as the Flexi for offering the student the opportunity to immediately blend practice with theory. In this way students are also enabled to see their own familiar practices in fresh ways and this can encourage them to change their practices within their usual daily workplace (Goddard, Fisher, Kinchington and Cobb 1999). Such opportunity, however, has not fully benefited the Flexi-mode student in Botswana for two main reasons. Firstly, the students are full-time employees. Their employment requires them to do the same amount of work as if they were not students. Heads for example oversee curriculum implementation at their schools and are regularly out of their duty stations attending meetings and workshops. Secondly, the tutors also experience high workloads at the University as implied in their responses and where they want the number of supervisors increased to help in the research supervision activity. Four (66%) of the tutors said they supervised too many students. All this stems from the fact that the same tutors have to supervise the full-time, part-time and the flexi-mode students. In reality some tutors may have as many as 20 M.Ed. students to supervise in any one academic year. Students in particular were also not happy in finding supervisors for themselves and would prefer an allocation system where they knew who their supervisors were in advance.

Distance from the university

Students’ distance from the university means that they are physically separated with their tutors. This distance leads to communication gaps between the two important partners (Moore and Kearsley in Barbadillo 1998). Thirteen out of 31 (41%) of the students said they had difficulty in communicating with their tutors due mainly to distance. Half the tutors said the same of the students, but also attributed the problem to cost.

Communicating to the Flexi students as noted earlier, is mainly by phone and the university does not relieve tutors of the cost. Twenty three out of 31 (74%) and 18 out of 24 (76%) of the students respectively said they had problems in getting material for assignment and research work. The majority of these students live far from the university library. Most centres that offer similar non-contact or minimal contact hours such as UNISA in South Africa; Botswana College of Distance Learning; Bath in the UK, the Open Distance Learning – Zimbabwe use modules and reading materials in their courses. It is interesting to note, however, that more of the self-sponsored students are graduating first in each of the cohorts where they are. The majority of them have already completed. This does raise the point that those who are sponsored are abusing government funds.

Structure of the program

Both the tutors and students have expressed their concerns about the twelve taught three credit courses in the program. They feel that the number of courses should be in line with regional and international practice. This will help them to complete their assignments on time.

SUMMARY AND CONCLUSION

The Flexi-mode program has been a welcome initiative for the students who are also in full-time employment. It offers school managers and education officers the rare opportunity to pursue their academic development while at the same time earning a full salary. The Ministry of Education, on the other hand, made immense monetary savings by releasing a large group of 'students' simultaneously and at a rate much cheaper as had been the case for the students who had studied outside the country. Whereas the individual and organizational benefits outweighed the losses, the program was/is not without its own problems. The students were concerned about being isolated from their tutors, shortage of tutors and reading materials. These concerns bordered mainly on organizational and administrative issues, more than on the quality of the program.

RECOMMENDATIONS

In the light of the discussion of the findings, there is need for an evaluation for improvement of the program which should focus mainly on modularization of the program; having a full-time coordinator; having better support services for students.

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SELF-DIRECTION AND LIFELONG LEARNING IN THE INFORMATION AGE: CAN PLEs HELP?

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ABSTRACT

This paper offers a perspective on what it means for individuals to learn in the information age and examines challenges concerning learner control and self-direction. Supporting learners and learning are also discussed and considers how the PLE (personal learning environment) idea, as a methodology, can deliver holistic support within and beyond institutional learning engagements.

KEYWORDS

self-directed learning – lifelong learning – LMS
– PLE – web 2.0

INTRODUCTION

The information age—described by Jason Frand (2000, p. 16) as “globally connected, service- and information-intense, digitally based culture”—has witnessed continuing explosion of information and communication technologies (ICTs) and has changed the way people think and operate. This major cultural shift has prompted renewed interests in self-directed learning and, consequently, lifelong learning. Philip Candy (2004), one of the leading proponents of self directed learning, offers a perspective for the increasing twin attractions to self-directed and lifelong learning:

...the growing interest in self-directed learning is being driven not only by its potential value to educators, but by a surge of interest in learning more generally... [V]ital as it is, the learning that occurs in schools, colleges, universities and training centres constitutes only a minute fraction of all the learning that occurs throughout a lifetime... [Which indicates] a great deal of people's intellectual and emotional energy, not to mention their discretionary time, is taken up in work-related learning (pp. 42-45).

The need to maintain currency in ones chosen discipline is more prevalent now than ever before, as well as keeping abreast of the technologies commonly encountered within that field. It therefore necessitates continuing learning across the lifespan (Candy, 2004; Frand, 2000). Seen in this context, the dichotomy between school-based and work-based learning is indeed blurring. As Edgar Faure concludes in his book ‘Learning to be’, education must combine practical experience with academic studies, and it must do this in a way that promotes self-direction and prepares people for lifelong learning (cited in Gibbons et al, 1980). While the ongoing

demands for learning bear good news for those whose business it is to provide continuing education and training, there remain some underlying challenges in responding to such needs. The critical aspect of these challenges is enabling learners’ capacity to manage and control their learning within and beyond institutional settings. This is predominantly due to the systemic limitations of, not only instructional approaches and institutional mindsets, but also the design of technologies that service them.

This paper considers these challenges as it explores learner control and self-direction in the information age. The important distinction between self-direction and learner-control is explained in the second section and suggests strategies for supporting learners and learning. The notion of personal learning environment or PLE, as a methodology towards holistic support for self-direction and lifelong learning is explored in the final section. “The key concept of the PLE is that the use of a Service Oriented Approach allows the individual to choose the suite of tools that they want to work with (their Personal Learning Toolkit), and the PLE is the glue that brings the individual tools together and allows them to interoperate” (Milligan, 2006). PLEs are being touted as a revolutionary concept for learning engagements of individuals throughout life. As such, the author argues that awareness of the affordances of Web 2.0 technology associated with PLEs, coupled with adequate preparation while engaged in formal education, hold the key for self-directed learning across the lifespan.

LEARNING IN THE INFORMATION AGE

The present age is distinguished by growing dependence on ICTs and by elevation of information and knowledge work (Candy, 2004). According to Carole Barone (2003), learning in the information age is such that the conceptualisation of the “learning environment is transitioning from learning in a physical space—that is, the classroom—to a student-centered

learning environment situated in cyberspace” (p. 42). Indeed, the notion of ‘flexible learning’ has been the subject of discussions and debate in recent times, alongside the ideas of ‘hybrid learning’, ‘distributed learning’ and more recently the terms ‘blended learning’ and ‘e-learning’. There are at least two common themes in this discourse: 1) the proliferation of ICTs in education; and 2) the changing nature of learning and teaching (Barone, 2003).

These recent developments in education challenged the dichotomy of educational delivery with the ongoing convergence of on-campus and off-campus modes of delivery, thus continuously affecting the way that students learn (Palaskas & Muldoon, 2003). Web-based technologies, in particular Learning Management Systems (LMSs), have been attributed as mediating this convergence, which commentators claim add new dimensions of richness and complexity to the learning experience (see Barone, 2003; Candy, 2004; Graham, 2004; Reay, 2001; Sands, 2002; Young 2002). Candy (2004) for instance suggests that the web has the capacity to offer certain forms of self-directed learning and provide greater social contact for learners than the former stand-alone systems, and electronic devices that preceded them. Universities across Australia share this view where most have adopted a model of formal learning heavily entrenched in LMS such as Blackboard, WebCT, Moodle or Sakai (Jones & Muldoon, 2007).

CHALLENGES WITHIN THE HIGHER EDUCATION SECTOR

While the usefulness of ICTs in education has been widely suggested in the literature, according to Candy (2004) “much of this turns out to be fundamentally about enduring educational problems and issues, rather than about anything dramatically new and transformational” (p. 39). The value of LMSs in particular is continuously being scrutinized, highlighting that pedagogical practices concerning the use of LMSs have yet to significantly challenge the prevailing educational tradition within the higher education sector. As explored below, these practices inhibit learner control and self-direction, both of which underpin a range of challenges for many university practitioners and administrators alike (Downs, 2006; Wilson et al 2006.).

Doing old things in the new medium

Current learning and teaching practices continually adopt an approach where the “existing pedagogy is retained and simply transferred to the new medium, the LMS” (Jones & Muldoon, 2007, p. 451). The pedagogy remains heavily influenced by the ‘telling’ mode

of teaching and teacher-directed learning, which over 30 years ago the distinguished educator Paulo Freire aptly described as ‘dominating’ the learners in the learning process instead of ‘liberating’ them (Freire, 1972). This begs the question of why, despite the promise of the empowering nature of ICTs, do approaches continue to promote teacher dependence rather than learner autonomy.

Distinction between learner and teacher capabilities

An assumption about LMS-based model of learning is that teachers can urge learners to be creative and participative where the learners are also exhorted to assume control of their learning (Wilson et al, 2006). The tools within LMSs, however, are not designed for learners to do so. Rather, these tools are specifically designed for teachers, deemed more knowledgeable to organize and sequence information, create content and direct instruction. Given the design of most learning environments within LMS typically exemplifies a passive role for learners, this sends a conflicting message and creates an uneven relationship (Wilson et al, 2006). Such practices directly contradict the desirable outcomes for learning in the information age, which draw heavily on learners’ active engagement, and in turn enable them to develop capabilities to become effective knowledge users as well as content producers (Downes, 2005).

Homogenous experience of context

Because of the learners’ limited ability to manage and organize or direct their learning, coupled with the course-centric nature of educational delivery in institutional settings, it results in homogeneity of experience within LMSs. As Wilson et al (2006) assert “all learners have the same experience of the system, see the same content, organized in the same fashion, with the same tools”. They experience the same artificial and often contrived ‘community’, whereby discussions have a fixed start and end-point (Downes, 2005). This is in contrast to the aspirations expressed in the lifelong learning movement that calls for greater learner autonomy and self-direction (Candy, 2004) and is indeed a far cry from rich and ongoing community-based interactions being experienced by learners outside institutional settings.

Anytime, anyplace access to resources

The notion of flexibility has been the catch phrase with the emergence of LMSs, claiming affordances for anytime, anyplace access to learning resources. Learners have the ability to go to the course site and access resources hosted in the LMS, anytime through networked

computers anywhere in the world. However, this 'I go get web' model (Vander Wal, 2006) rarely approached the kind of flexibility needed in the knowledge rich society. The limitations of this model in systems like LMSs are highlighted by the affordances of the 'come to me web' model (Vander Wal, 2006), where in addition to access, learners also have the capacity to build and manage their own collection of resources. The implication for learners in the latter model is that learning is available no matter what they are doing, with opportunities to connect with wider communities, re-use information and create content.

Scope of operation and institutional control of access

Institutions host, manage and control the system where access to LMS-based learning environments is only available to the cohort enrolled in a particular course (van Harmelen, 2006). Provision for continuous access to the same sets of resources, teachers, and other learners post enrolment is not possible in the current design of LMS. With such restrictions, there are no opportunities for cross-institutional learning, informal or incidental learning. The focus is on safeguarding content hence preventing access by others within the institution or the outside world (Wilson et al, 2006). However, commentators assert that the mindset in the information age has changed (see Barone, 2003; Frand, 2000) and that sharing of content is not viewed as unethical but hoarding it is considered antisocial (Downes, 2005). While there are benefits to be gained in formal learning at highly controlled environments like LMS, it also greatly inhibits capacities for wider community-based learning and self-direction.

The demands in the information age are such that institutes of higher learning would be better served if they were to genuinely promote lifelong learning opportunities. To do so, institutions need to provide transformational approaches, as well as systems and infrastructure that can support learner control and self-direction (see Jones, 2008, this issue). The next section offers a perspective for supporting learners and learning in ways that mediate learner control and self-direction within institutional settings and beyond.

SUPPORTING LEARNERS AND LEARNING IN THE INFORMATION AGE

In the online environment...there is platform for the storage and delivery of materials, learning projects that start out as independent and self-directed can subtly merge across into course and programs offered online-with or without the formality

of enrolment. Conversely, participation in an online course can give rise to the pursuit of more self-directed activities and interests... Thus there is a greater transparency in the online environment, a fluidity between formal education and training and the independent pursuit of learning which needs to be recognised by information and education providers alike (Candy, 2004, p. 51).

Candy's assertion highlights the blurring between formal and informal learning and gives rise to the distinction between learner control and self-direction. Traditionally in institutional settings, learner control often means giving learners some control over certain instructional functions, e.g. pacing of various topics within a course (see Candy, 1991). In contrast, self-directed learning is a term that recognises factors that facilitate learners taking primary responsibility for their learning, e.g. identifying learning needs, securing learning resources, implementing learning activities and assessing and evaluating learning (see Hiemstra, 1994). With the changing mindset in the information age these two terms no longer yield a dichotomy but a continuum for lifelong learning. The relevance of this continuum relates directly to the types of curriculum, facilitation and learner support required within institutional settings and beyond.

CRITICAL ELEMENTS OF HOLISTIC SUPPORT FOR LEARNERS AND LEARNING

Technology is deemed as the answer to many educational issues and challenges within the higher education sector. However, at this juncture it is pertinent to ask that if technology is indeed the answer what is the specific educational question that it is trying to solve? As highlighted in the previous section, despite the empowering nature of ICTs the inhibiting factors for effectively supporting learner control and self-direction persist. This paper therefore asks one of the more critical questions in higher education: *How can teachers devise ways of embedding learner control and fostering self-direction?*

The answer however cannot focus solely on technology. In fact, the focus also ought to be directed to principled learning designs, and an even greater focus towards the development of skills for life. This paper argues that the three critical elements of holistic support for learners and learning are: 1) facilitating principled learning designs; 2) effectively developing skills for life; and 3) harnessing the affordances of technology.

Supporting learners through principled learning designs

A 'principled learning design' is one that is driven by intended learning outcomes, with learning activities explicitly link to both learning outcomes and assessment, and where the latter measures the degree to which the learning outcomes have been achieved. Another critical element of the principled learning design is that the underlying principles of a particular theory of learning explicitly guide the design. In this context, the pedagogy and specific needs of learners and learning drive the design, rather than what the technology can do. In principled learning designs, the effectiveness of the learning-teaching transaction is highly transparent, not only to the teacher and others involved in the course design, but also to learners as well as observers external to the course. For example, the balance between teacher-directed and learner-driven activities is evident, which is informed by curriculum decisions linked to learning outcomes. Critically, one of the main goals of principled learning designs is to facilitate the blurring of theory and practice, hence explicitly embedding authentic learning activities and assessment. This approach paves the way for integrating vital lifelong learning skills within the coursework, where learners are afforded various opportunities to develop skills for life. Learner support is also explicitly embedded in a principled learning design, which often takes the form of enabling opportunities for learner control and self-direction. For example, the technology-mediated learning environment is organised in such a way that learners can prepare for the challenges that lie ahead, identify their learning needs, secure learning resources, engage in authentic learning activities, monitor progress and assess and evaluate learning, by themselves as well as with others. The learning environment is therefore centrally focused on what the learner does to facilitate learning, rather than what the teacher does to teach, thus consistently fostering learner autonomy. Research into the nature of learning, emerging from the design-based research movement, suggests that a theory-based or principled design of learning environments goes a long way in ensuring the effectiveness and transparency of the learning-teaching transaction (see Bareiter, 2002; Cobb et al, 2003; Design-Based Research Collective, 2003).

Supporting learners through the development of skills for life

In an era of unprecedented technological and information explosions, skills in information literacy and ICT literacy are the two vital skills for lifelong learning (Lanham, 1995). The varying degrees to which learner control and

self-direction are embedded in the principled learning design are themselves acting as enabling agents for developing and maintaining these essential skills for life. Simple semantics hold the key in understanding how this can occur, i.e. the use of the term *about* vs *with*. For example, learning *about* technology yields different learning outcomes than learning *with* technology. The latter experience-based approach enables learners to acquire and use technological knowledge, skills and attributes that can aid other facets of their life activities, as opposed to the more narrowly focused learning *about* approach. Furthermore, the traditional view on learning information literacy skills is that it is the province of librarians and other information specialists to teach these skills, typically an add-on to coursework. However, learners are more likely to place meaning on ideas when learned in context with how knowledge and skills will be used in real life. Therefore, gaining knowledge and skills in information literacy can be better served with instructional approaches that integrate both 'knowing' and 'doing' (see Brown, Collins & Duguid, 1989), as well as extending the development of skills and attributes beyond that required for completing university assignments. The principled learning design views the skills and attributes gained during the university experience as the learners' point of departure towards autonomy and self-direction.

Supporting learners through the affordances of technology

As indicated earlier, "new tools being adopted to do the work of the old" (Siemens, 2008) is one of the major reasons for failing to realise the empowering aspects of ICTs. In principled learning designs, ICTs are seen as effective enabler and supporter, as well as a critical delivery mechanism for a given learning design. Without the power of ICTs, it would be difficult if not impossible to meet all the aims and objectives of instruction that are distinctively associated with a given learning design. In principled learning designs, technology is used as the catalyst within which the lifelong learning continuum is mediated, mixing and realising the transformative potential of both new and newer technologies. For example, an LMS serves a particular purpose in principled learning designs, such as enabling learner control for monitoring progress, e.g. online tests linked to Gradebook. However, behind the 'garden walls of LMS', other tools such as journals, wikis and blogs are at odds with the underlying philosophy of these technological innovations, e.g. accessible, open publishing (Tittenberger, 2007). On the other hand, publicly hosted wikis and blogs are

prevalent and more suited for supporting self-directed learning beyond the learners' university experience. The principled learning design uses a combination of controlled and publicly available systems because of their combined potential for meeting the learning needs of the here and now, as well as in the future. Integrating the use of publicly available systems while engaged in formal education forges the link to possible continuing learning engagements beyond institutional settings.

As can be seen, the three major elements of holistic support for learners and learning are inseparable, and that their interdependence is clearly evident. There is no one single system, however, that can support the varying needs of learners and learning, or a single system that can service and deliver all the demands of principled learning designs. The succeeding discussion explores the affordances of PLEs and how these might be leveraged for supporting learners and learning within and beyond institutional engagements.

TOWARDS HOLISTIC SUPPORT FOR LEARNER CONTROL AND SELF-DIRECTION

The limitations of systems common in most universities should not pose barriers towards achieving holistic support for learner control and self-direction. Rather the potential and purpose for which such systems are designed need to be leveraged and combined with other systems to loosen the albatross strangling both learners and teachers. Institutions therefore need a methodology that can guide the delivery of learner support within and beyond formal education. In this regard, the notion of PLE as a methodology is a worthwhile consideration.

Among the many perspectives on PLE currently proliferating the literature and discussions online, Graham Atwell's view provides a fitting description for the manner in which learners and learning can be holistically supported through out life. Atwell (2007) explains that:

The idea of Personal learning Environment recognises that learning is continuing and seeks to provide tools to support that learning. It also recognises the role of the individual in organising their own learning. Moreover, the pressures for a PLE are based on the idea that learning will take place in different contexts and situations and will not be provided by a single learning provider. Linked to this is an increasing recognition of the importance of informal learning (p.2).

The propositions so far elicited in this paper are directly connected to the potential of PLE, to bring together different worlds and inter-relate learning from institutional settings, work and life in general. Because a PLE "is comprised of all the different tools we use in our everyday life for learning" (Atwell 2007, p. 2), these tools, and the information and content generated within them, no longer need to be only used in one context and for one purpose as currently practised in most educational institutions. Social software associated with PLE, collectively described as Web 2.0 technology, offers learners the ability to search information (Google, Flock) create and publish (blogs, podcasts, youtube, Flickr), collaborate and share ideas (wiki, del.icio.us), join communities (Facebook, MySpace) and create their own identities (eportfolio, MySpace, Facebook). All of these tools carry longitudinal attachments with each learner because of the affordances of such tools to provide learner control and self-direction and, critically, because there are no restrictions of access. Throughout life, learners have the capacity to access and manage these tools, not only to continually access information, but also to re-use and re-purpose them, as well as to generate new content (LTC, 2008). Indeed the idea of continuing access to tools, information and other content goes along way in supporting learners and learning e.g. knowledge generated in institutional settings that remained inert can be remedied if learners were encouraged to keep a blog or other forms of artefacts at the time of exposure to a particular idea or situation. This in turn may facilitate reflection, re-learning or recognition of additional learning requirements. In this context, the learner is responsible for identifying learning needs, and has the capacity to collect and build his/her own knowledge database from a variety of both formal and informal educational exposures.

Given this situation, the central line of reasoning in this paper is that awareness and preparation hold the key. If learners are already experienced and appropriately skilled for the way information is accessed, used, re-purposed and generated whilst in formal education, then chances for lifelong learning engagements are significantly enhanced. However, it is highly unlikely that simply knowing *about* the tools for lifelong learning will deliver learner and learning transformation. Learners need to learn *with* those Web 2.0 tools during their exposure to formal education. In this regard, the PLE methodology can mediate the three critical elements of holistic support for learners and learning highlighted above, all of which may be used as a conduit to deliver the transformational promise of ICTs.

CONCLUSION

The eloquence of Jason Frand (2000) provides a powerful concluding message, which reflects the propositions elicited in this paper:

The outlook of those we teach has changed, and thus the way in which we teach must change. The world in which we all live has changed, and thus the content we teach must change. The industrial age has become the information age, and thus the way we organize our institutions must change, as must the meaning we attach to the terms "student," "teacher," and "alumni." The challenge will be for educators and higher education institutions to incorporate the information age mindset of today's learners into our programs so as to create communities of lifelong learners (p.5).

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THE INTERNATIONAL L2 POSTGRADUATE EXPERIENCE OF THE ACADEMIC ESSAY: A LEARNING JOURNEY

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ABSTRACT

This paper contributes to an understanding of the journey made by postgraduate ESL students composing in an academic context. Findings from this qualitative research on composing, the learner, and their learning collectively could be seen as shifts in identity by the L2 writer for their current and future learning contexts.

KEYWORDS

ESL composing – L2 postgraduate students – L2 learning – L2 learner

INTRODUCTION

Imagine if you will that you are a student who travels to a foreign university where teaching is in another language to begin coursework postgraduate study. From your undergraduate degree you possess certain skills, but what will apply, and more importantly, what will not, in this new context? Now you have *some* idea of the learning challenges that face international coursework postgraduate ESL (ICP-ESL) students who study, and write academically, in the Australian higher education context.

There are established theoretical accounts which enable us to understand the process of composing in a first language (L1). There are also accounts in the literature of the way in which academic writing is a special case; it usually involves composing using sources. The literature shows that first language and second language (ESL or L2) composers have different experiences. This is in some measure due to the L1 learner influences of language, culture, context, and their prior learning. Underlying these accounts of the composing process is, however, the question of motives, conceptions and approaches to learning. This paper presents specific findings from a Master of Higher Education thesis. The findings on composing (reading, writing and thinking) point to three distinct L2 composing processes that may also influence the level of structure within the essay. Findings on these L2 learners also show how their motives, perceptions, and intentions are closely associated with their conception of, and approach to, their learning. Although this paper specifically focuses on ICP-ESL students' experiences of their academic essay, the two platforms I suggest for scaffolding second language composing in English has the potential to be applied more widely to L2 (and other) lifelong learning contexts. Lifelong learning, in this paper, is defined as any formal or informal learning experience which

contributes to an individual's education as an adult beyond formal schooling.

Literature Review

Composing is an amalgam of writing, reading and thinking, and it "often requires incorporating material from source texts – statistics, ideas, quotations, paraphrases, and so forth – into written texts" (Hirvela, 2004, p. 1). This is to say, then, that researchers in the area of writing have used the term 'composing' to recognise that reading, writing and thinking interact, and re-interact, with each other in ways that are not always visible or separable in order to produce the final product, in this case the essay. Reading, writing and thinking can be represented as a mutually generative and recurring relationship within the composing process.

However, this process is also "about context; it pictures writers and readers as thinkers, problem solvers, meaning makers who are located within a social and rhetorical circle that influences them both" (Flower, 1993, p. 17). In other words, writers use composing as a learning tool to construct meaning within their social context. As well writers usually do not write in isolation, they are influenced by the society or rhetorical circle around them. For students, their rhetorical circle consists of the researchers and writers in their discipline, otherwise referred to as their disciplinary community. If the student changes their disciplinary community or context, then logically there may be changes in both the influences upon them and the way they compose as a result of those influences. Therefore, in order to understand the change in expectations of them as writers, L2 students may benefit from understanding their original individual writing context (L1 writer identity) and how it differs from their current situated writing context (L2 writer identity). At the heart of this, students go through a process of meaning-making within the disciplinary community, a process which involves the contested nature of knowledge, language and identity (Lea & Street, 2006).

Writing in a second language sits between composing and language learning. The literature on ESL writing or composing points to both similarities and differences between L1 writers and L2 writers. There are some similarities between basic inexperienced L1 writers and L2 writers. L2 writers have the ability to transfer L1 writing skills and strategies and operate in a similar way to expert English writers. However, the differences between L1 and L2 writers fall into a number of categories such as cognitive capacity, time to compose, lack of vocabulary, capacity to choose appropriate words, range of vocabulary, and cultural familiarity with the genre (Leki, 1992). A key area of concern is how L2 writers interact with the texts of others when composing from sources. Due to their prior learning and cultural experiences L2 writers may be unfamiliar with notions of western views of ownership of words and ideas (Pennycook, 1996); therefore plagiarism may not be recognised by the ESL composer as an offence against academic conventions (Pecorari, 2003). There is an argument for ESL writers using the strategy of explicitly differentiating between their voice (words and ideas) and the voices of others/experts (Ivanic, 1998).

Research points to inexperienced L2 writers undertaking a process of cobbling together, textual borrowing, or *patchwriting* as a way of integrating source materials from their discipline when composing (Howard, 1995). Pecorari (2003) agrees that Howard's model of *patchwriting* has merit as an initial learning phase for L2 writers; however it is important for L2 composers to progress past this, and make the transition to the development of their own voice or L2 writer identity. This is because paraphrasing and quoting are important as a learning process "in which reading and writing inevitably overlap and interact while the student locates and reconstructs or appropriates material from the source texts" (Hirvela, 2004, p. 94).

There is also a need to explore the underlying but influential connections between the student as a learner and their learning. In order to understand the learner, we need to understand the connections between motives, perceptions, intentions, conceptions, and approaches. For students, motives are underlying personal concerns that influence perceptions and create intentions. Motives generally fall into three areas: genuine interest in the subject; wanting to succeed or achieve; the dread of failure. Perceptions, on the other hand "result as much from the motives of students as from the actual learning situation, and these perceptions ultimately affected the approach students took."

(Schmeck, 1988, p. 324). All this plays a role in the approach to learning that the student takes in their current context.

Entwistle emphasises the importance of the motivation of the learner in the scheme of student learning. He draws on the difference between *intrinsic* motivation or "learning for personal understanding" and *extrinsic* motivation or "fulfilling the requirements of others" (1988, p. 22). Marton and Saljo (1997) take up this distinction and suggest that there are connections between intrinsic motivation and a deep approach to learning, and extrinsic motivation and a surface approach to learning. Put simply, how the student identifies as a learner, influences how he or she goes about learning.

So how do these connections relate to the way students write their academic essays? Smith, Campbell and Brooker (1999, p. 336) found through their case study analysis of essay writing processes that "students' conceptualisation of the task governs their approach at every stage of the essay construction procedure from identifying references to final editing". Further to this, Green's (2007) study of international students essay writing revealed links between these students' perceptions of learning, their perceptions of essay writing, and motives toward the task. In other words, how the learner views the task also influences their learning.

Hounsell (1997) identified three distinct conceptions of essay writing in L1 writers, and what is involved in the task within a discipline for history and psychology undergraduate students - *essay as argument* (information synthesised and integrated as evidence into a structured line of argument), *essay as viewpoint* (information representing a point of view), and *essay as arrangement* (collection of organised information). With *essay as argument* the students viewed the essay as a sum of integrated parts, constituting a line of argument which is supported by evidence. Although *essay as viewpoint* is also experienced as the integration of parts into a whole representing a point of view, it varies because the role of evidence in the argument is not seen as significant. *Essay as arrangement* differs again, in that it is a group of separate, if relevant, points collected into an organised product lacking a theme or position (Hounsell, 1997).

Looking at the preceding points, it can reasonably be said there are connections between composing (the way students read, write and think), the learner (and the influences of their prior L1 and current L2 learning context) and

their learning (conception of and approaches to learning). So it is important to take into account these influences collectively. However, there could be a complication for L2 students; the possibility of an inconsistent mix of these collective influences.

METHODOLOGY

This qualitative research aims to identify and understand the students' experience. Consequently the approach for the framework and methodology of this research is based on an interpretive study of similarities and differences. The findings reported here are the students' accounts that emerged from the data. The primary data source was transcripts from semi-structured interviews with ten international coursework postgraduate ESL (ICP-ESL) students from Master's programs: Arts, Education and Business. These students were born outside Australia in countries where English is not their first language (China, Denmark, Germany, India, Indonesia, Iran, Korea, Lebanon, Sri-Lanka, Taiwan). The secondary data source consisted of two prior marked essays provided by each of the ICP-ESL students prior to the interview. The students were asked also to reflect on their past experience with academic essays, completed either as part of their current program, and/or during their undergraduate program. The questions were designed so that the interview began with broad open questions regarding the similarities and difference between their L1 and L2 experiences, and then focussed in on more essay-specific questions by the end of the interview. Probing questions were added for examining the students' interpretations of both the written essay and the assessor's written comments. The interviews were audio-taped and transcribed verbatim to form the primary data.

Descriptions of students' experiences of academic writing (using pseudonyms) are the outcome of this inquiry. Data analysis involved immersing myself in the data by listening to, reading, and re-reading the transcripts in order to extrapolate themes. The identification and refinement of themes of similarities and differences were the result of repeated cycles of data analysis. The marked essays were used as a valuable tool for the interview. Pre-interview, I analysed the essays and the marker's comment in order to develop specific probing questions about argument, evidence, acknowledgement, structure, syntax, and the like.

RESULTS AND DISCUSSION

The results of this research were wide-ranging, and as such I will focus on the themes that are pivotal to lifelong learning. They are Composing

Processes, Argument and Evidence, Referencing and Plagiarism and Learning Issues.

The findings on Composing Processes of ICP-ESL students vary. For some it is a recursive and generative process (*thinking through writing*), for others it is *thinking then writing*; with perhaps some recursiveness occurring during the pre-writing processes.

"I have usually been doing writing the body first, then I do the introduction and then the conclusion. When I start I usually do not know what the whole thing is going to be, and as I write I get ideas and then I have a think..." [Steven]

"No, I'm not that kind of person to move around things. Once I have to write everything down, which is in memory, then after writing down everything, maybe I go again through it and I add some words or I take away..." [Iris]

But for others again, their approach to the L2 composing process is based in deference to their lecturers (*thinking from the point of authority*). L1 cultural influences result in these L2 students seeing lecturers as incontestable figures of authority. This frames, then, all future thoughts, ideas and processes of the L2 composer.

L1 influences are also revealed in relation to the level of structure in students' L2 academic essays. Students who are inexperienced L1 composers seem to rely heavily on structures and frameworks supplied in their L2 context, because of either their lack of prior composing experience and/or their deference to authority:

"...according to what I learnt in China, it is like usually you will have five paragraphs for this, in the first paragraph you give your point of view about something and in the next three paragraphs, or maybe two paragraphs, you give two or three reasons to support point of view and in the last paragraph you make a conclusion of your point of view." [Catherine]

However, students who have L1 composing experience seem to tap into these strategies and skills and transfer them to their L2 composing. Even so transference of L1 composing skills and strategies does not necessarily assure quality outcomes.

Those students who are associated with Hounsell's (1997) *Essay as argument* experience of essay-writing are able to recall in detail their academic argument, seem to fully understand how evidence supports and builds their line of argument, are intrinsically motivated towards

their essay, and seem to use the task as a tool for deep learning. These students seem to understand the connected importance of: critical analysis; reciprocal meaning between reader and writer; balance; objectivity; disciplinary community norms and practices; broad background disciplinary knowledge; and appropriate acknowledgement of the sources (referencing). The second group experiences essay-writing as a disparate collection of facts lacking any theme or argument, or *Essay as arrangement* (Hounsell, 1997). Interestingly, the only sense of organisation in their essay may be that supplied by their lecturer in the form of headings within the essay. This points to the complexity of underlying influences of *thinking from the point of authority*, wherein even 'relevance' gives way to 'what the lecturer says'.

The L2 composers who experienced their essay writing as *Essay as argument* (Hounsell, 1997), saw the connection between this, their voices (ideas and thoughts) and the voices of others (ideas and thoughts of researchers/experts). They acknowledged other sources as part of the logical line of argument, adding to the authority of their writing, indicating a level of background research, and valued by the disciplinary community.

"When I did undergraduate, it was okay don't plagiarise, just reword it. But now I cannot recite to it, like I can use the person's name and my work is better, because I don't have to ask if it's my work. Because it's someone else's work and I adopted it for my essay and I got it from expert." [Irene]

However, those L2 composers associated with *Essay as arrangement*, have an underdeveloped conception of referencing, *patchwrite* their voice (ideas and thoughts) and voices of others without differentiating them.

The influences of connections between the learner and their learning are implicit but substantial. In the course of relating their motives and approaches towards learning to write the western academic essay many of the students also related their general views about studying in Australia. One could even suggest that their motives and approaches to essay writing are, to a certain extent, microcosms of their motives and approaches to their pursuit of postgraduate study more generally. If international L2 students appreciate that studying at a western university will be different, then they may also appreciate that there are different approaches to study (different levels of expectations; different disciplinary community norms and practices; etc.). It is this awareness of connections or links

that influence approaches to learning that is important for *all* learners throughout their learning lifespan.

So how does this relate to students' motives and approaches to study and/or their academic essays? As outlined in the literature, intrinsic motivation is the personal connection or interest with the subject in order to find meaning, whereas extrinsic motivation is more what can be gained through the completing the task. Furthermore, there are links between intrinsic motivation (personal connection) and a deep (meaning-making) approach to learning, and extrinsic motivation (lack of connection) and a surface (reproductive) approach to learning.

"I want to know more. Yes, and of course I want to present more knowledge in my essay, that my lecturer could read it. But it's more for me, like I want to have that knowledge, so I can write that essay that gives me satisfaction." [Irene]

Glenda, Iris and Irene (above quote) display deep approaches to learning and intrinsic motivation. They have interest in the learning task: they create a personal connection with the topic; they actively seek understanding, and they try to construct personal meaning. Of particular note is Irene's explicit awareness of the difference between her current postgraduate active/deep learning, and her undergraduate passive/surface learning. Lawrence, however, manifests a lack of interest in the learning task, and fails to understand the relevance of engaging in the task appropriately – a clear case of extrinsic motivation and a surface approach to learning.

"Yeah, I felt like that is too boring, I can't do this again. Yeh, I ask myself why I am doing this again, because it is boring and I don't have to do this." [Lawrence]

Students' motives and approaches to studying overall seem closely connected to their motives and approaches towards the academic essay from the moment they decide upon their assignment topic through to the finished essay. The complicating factor here is an awareness of academic expectations: what is expected of an international student studying in Australia at a coursework postgraduate level, and what the international student understands is expected of them. This points to the need to make explicit to international L2 students the differences in: educational systems; universities; teaching styles; learning styles; academic standards. Therefore all aspects of university expectations should be made explicit, with an emphasis on representing this in basic functional English if possible. If the fundamental truth for international L2 students is that they are learning in a different context, then

they need to fully understand that new context. Furthermore, and this may be a crucial issue for all lifelong learning, each separate learning experience may require specific explicit context that is unique to that learning situation.

Implications

From these findings I would suggest two platforms for scaffolding ICP-ESL students' second language composing that should help contribute to their success in future learning contexts. The first platform involves the development of the learners' meta-cognitive strategies through explicit identification of, and differentiation between, L1 and L2 writer identity; the identities that are shaped by the interplay between composing, the learner and their learning. The second platform involves developing within the L2 student the capacity to use the slightly formulaic process of *patchwriting with proof* by consciously positioning alongside experts, and claiming credibility by acknowledging those experts. In time this may help the L2 composer understand and construct their L2 writer identity. These platforms should also collectively address most of the hurdles faced by ICP-ESL composers which include lack of L1 composing experience, incompatible L1 composing strategies, gaps in L2 usage, limited range of English language, culturally limited learning approaches, and the brevity of coursework masters program.

Teaching L2 students about L2 composing is fraught with difficulty – a pulling-yourself-up-by-your-bootstraps problem. It is important that we recognise that this difficulty does not start with composing, but is underpinned by the broader ways in which students perceive their new context. The way any learner at any stage of their learning life perceives their current context is the same pivotal issue for lifelong learning. Consequently, both academics and support staff (ESL advisers, learning advisers, information literacy librarians) should have access to dedicated support for a research component in their work in student diversity, in particular, second language student learning and ESL composing at coursework postgraduate level. For both academics and support staff, undertaking research on L2/ESL students may well be extremely valuable in a practical way.

CONCLUSION

All of the students interviewed expressed a genuine frustration with the need to surmount the multiple challenges for their current L2 learning context in a short amount of time. These students feel that the western attitude towards ICP-ESL students can be one full of implicit

expectations. These L2 students feel an underlying expectation that they can make their peace with academic English, ascertain the required standard of work and put together a composing process which will allow them to demonstrate that. There is an implied expectation that as learners ESL students are like us and their prior learning is similar to ours. There is also an expectation that ESL students can easily immerse themselves in western educational systems, universities, teaching styles, and learning styles. What is obvious, however, is that there are multiple, overlapping complexities that make up the ICP-ESL student's journey in negotiating their L2 learning context and in developing competence at producing an academic essay. The findings of this study point in the same direction as much of the research literature, namely, that there is a need for sustained help for these students from academics and support services. In turn, staff who work in these functions need to have access to informed training and development.

Academics, librarians and learning advisers need to work collaboratively in order to help ICP-ESL students' frame their futures within their L2 learning contexts and to manage academic writing with competence and confidence. Zamel (1998p. 193) reminds us that: "We need to recognise that...the entire academic community assumes the responsibility of teaching reading, writing, critical approaches." This study suggests that there are ways in which we can assume this responsibility that are likely to be successful and could also be of value, now and in the future, for *all* learners challenged by changes in their learning context. In particular, academics and support staff need to assist L2 (and non-L2 students) to come to a more conscious awareness of all of the differences in their new learning context/s. Further, academics and support staff need to induct ICP-ESL students into the quite micro-level strategies and conventions of composing in ways that are specific and enabling, helping them to close the loop between writing and learning. Only then will western educators begin to take into account all of the difficulties that have emerged in this study.

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TEACHER TRAINEES' READINESS TO USE MULTIMEDIA IN THE CLASSROOM

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ABSTRACT

This study examined a model of teacher trainees' readiness to use multimedia in the classroom by incorporating constructs from Technology Acceptance Model (TAM). Structural equation modelling analysis supported a model in which perceived usefulness and perceived ease of use positively influenced mediating variables (attitude towards computer) to predict intention to use.

KEYWORDS

intention to use – multimedia – teacher trainee - attitude

INTRODUCTION

Lifelong learning is a continuous learning that people engage in throughout their lifetime (McLoughlin, 2003) to acquire knowledge in order to apply into classroom instruction. Fischer (2000) stated that "lifelong learning needs to be supported by new media and new technologies as they can be as a teaching and learning tool". For example, the use of multimedia in classroom instruction nowadays has become common in many schools and higher educational institutions. Using multimedia application as part of students' resources in learning also shows some of the ways that multimedia application can be used to facilitate and promote lifelong learning. Multimedia also provides access to the new ways of thinking and creates a constructivist learning environment (Tse-Kian, 2005). Multimedia can be simply defined as "the presentation of a computer application, incorporating media elements such as text, graphics, video, animation and sound, on a computer" (McGloughlin, 2001, p.2). The importance of multimedia in education has been highlighted in Gatlin-Watts, Arn and Kordsmeier (1999), Hammer and Kellner (2001), and Houghton (2004). As Malaysia is adjusting to the current scenario towards preparing teachers to use ICT in teaching and learning, it is intended that schools be fully equipped with computers and multimedia technologies. It is also intended that teachers and students use these technologies in their teaching and learning process. Thus, there is a need to know whether

teacher trainees perceive technology (specifically multimedia) positively, and the factors that contribute in predicting their intention to use multimedia in teaching.

THEORETICAL FRAMEWORK

The Technology Acceptance Model (TAM) introduced by Davis (1989) which is specifically used to explain computer usage behavior was used as a framework to investigate the intention to use multimedia in teaching and learning process. This intention based model (Figure 1) was derived from the Theory of Reasoned Action (TRA). According to TRA (Fishbein & Ajzen, 1975), a person's performance of a specified behavior is determined by his or her behavioral intention to use. In the Technology Acceptance Model, Davis proposed that the influence of other variables on technology acceptance is mediated by two main constructs: perceived usefulness and perceived ease of use. The actual use of the technology is determined by the user's behavioral intention to use that particular technology which influenced indirectly by external variables through perceived usefulness, perceived ease of use and attitude. For instance, if teacher trainees have the knowledge (external variable) in using multimedia, they will positively perceive the usefulness and ease of use of multimedia in teaching and learning process; this will lead to positive attitude and, thus, positively influence the intention to use that particular system. Previous research has demonstrated the TAM's usefulness as a tool to predict user acceptance towards technology (Geffen & Straub, 1997; Money, 2004; Saade, Nebebe & Tan, 2007).

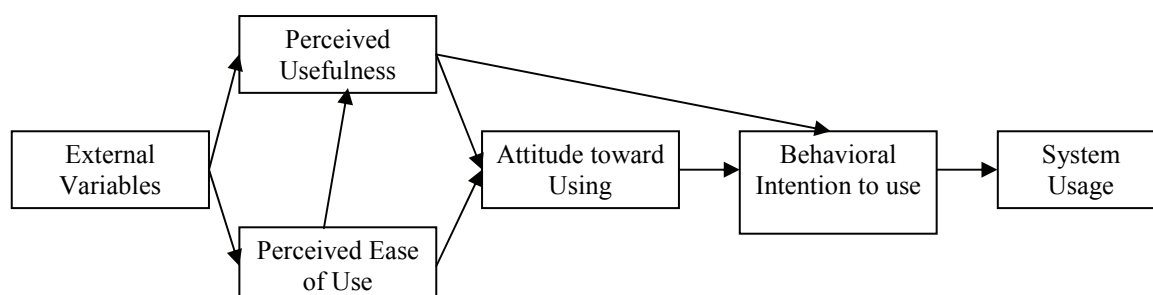


Figure 1: Technology Acceptance Model (Davis, 1989)**Perceived Usefulness**

According to Davis (1989), perceived usefulness is defined as the extent to which a person believes that using a technology will enhance their performance. However, in this study, perceived usefulness will refer to the extent of teacher trainees' perception that using multimedia will enhance their job performance. Previous studies showed perceived usefulness played a significant role in predicting intention to use (Davis, 1989) and attitude (Chau & Hu, 2001). A study by Saade, Nebebe and Tan (2007) found that perceived usefulness was fully mediated by attitude. Thus, the study hypothesized that:

H_{1(a)}: Perceived usefulness was positively related to intention to use multimedia.

H_{1(b)}: The relationship between perceived usefulness and intention to use multimedia was also mediated by attitude towards technology.

Perceived Ease of Use

In Technology Acceptance Model, perceived ease of use is the extent to which a person believes that using a technology would be free of effort (Davis, 1989). Perceived ease of use has been found to positively influence perceived usefulness (Gao, 2005) and attitude (Saade, Nebebe & Tan, 2007) which will lead to the intention to use the particular technology. However in some studies, perceived ease of use was not a significant influence of attitude (Gao, 2005; Saade & Galloway, 2005). Money (2004) also found that perceived ease of use has significant influence on intention to use. This study hypothesized the following:

H_{2(a)}: Perceived ease of use of multimedia positively influenced attitude to affect intention to use multimedia.

H_{2(b)}: The relationship between perceived ease of use of multimedia and intention to use multimedia was also mediated by perceived usefulness of multimedia.

H_{2(c)}: Perceived ease of use of multimedia directly influenced intention to use multimedia.

Attitude

As proposed in Technology Acceptance Model (Davis, 1989), attitude plays an essential role of predicting user's intention to use the technology. A study by Saade, Nebebe and Tan (2007) found that attitude was a determinant of intention to use the system. Teachers' attitudes towards using

technologies in their respective classrooms are key factors in facilitating successful technology integration (Bitner & Bitner, 2002). However, they are not by any means the only factors. According to McKee (1998), students are highly interested in using multimedia presentations as an instructional tool for the future classroom teaching. However, the extent to which technology enhances learning outcomes and the potential of technology to transform education can only be realized when teachers have the right attitude in order to use technology into the curriculum.

H₃: Attitude was positively related to intention to use multimedia.

External Variable

Knowledge was included as an external variable in Technology Acceptance Model for determining the intention to use multimedia because it is can be argued that having knowledge will increase teacher trainees' perception of multimedia usefulness and ease of use. Zoraini (1985) asserted that a person has to have knowledge, skills and positive attitude towards computer to be able to integrate technology into classroom instruction. Effective integration of technology depends on teachers who have knowledge about how to use technology to meet instructional goals (Bitter & Pierson, 2005) and teachers who are competent to use technology in teaching and learning process (Kirschner & Davis, 2003).

H_{4(a)}: Knowledge in multimedia positively influenced perceived usefulness of multimedia and led to positive attitude, which in turn, positively affect intention to use multimedia.

H_{4(b)}: Knowledge in multimedia positively influenced perceived ease of use of multimedia and led to positive attitude, which in turn, positively affected intention to use multimedia.

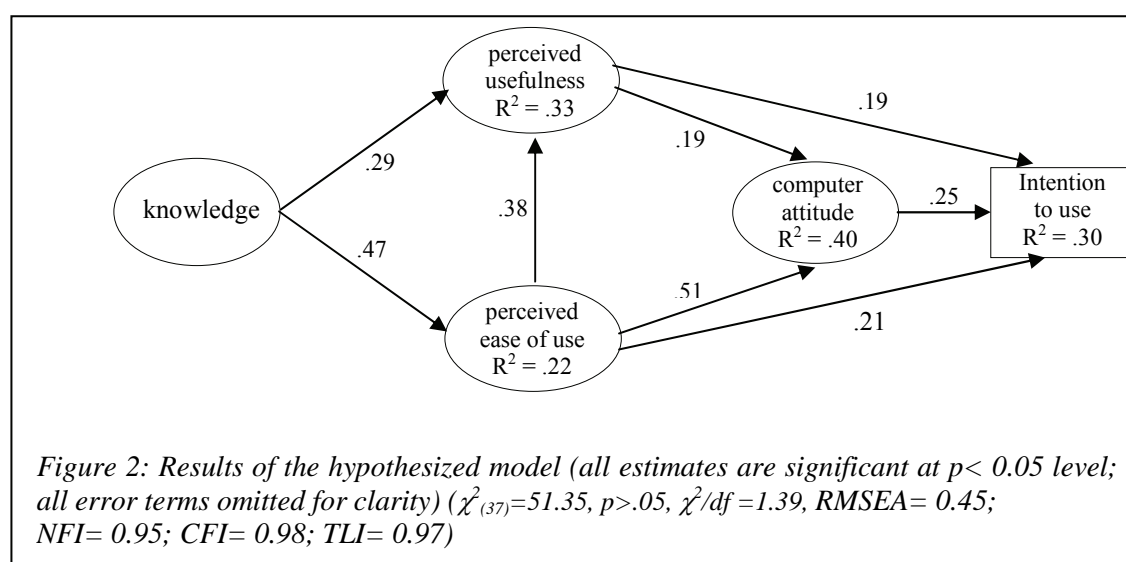
METHODOLOGY

Participants were 196 final year students of Bachelor of Education at a university in Malaysia. The information used for this study was gathered through a questionnaire distributed during class. The questionnaire comprised 30 items and measured knowledge (9 items), perceived ease of use (5 items), perceived usefulness (10 items), attitude (5 items) and intention to use (1 item). Pilot study was conducted with 36 students to determine the suitability of the instrument.

Knowledge items were adapted from Karim et al. (2004). Students were asked to rate their knowledge in using multimedia technologies using five-point likert type scale ranging from 1 (Do Not Know At All) to 5 (Really Know). The reliability of this construct was 0.81. Teacher trainees' perceived ease of use and perceived usefulness of using multimedia in classroom instruction were measured using Technology Acceptance Model (TAM) instruments (Davis, 1989). Students were asked to rate their PU and PEU in using multimedia technologies using four-point likert type scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). The reliability of the constructs was 0.92 and 0.74, respectively. Attitude items were adapted from The Multimedia Attitude Scale by Foo and Garcia (2001) and Attitudes towards Computer Technologies by Delcourt and Kinzie (1993). Students were asked to indicate their attitude

Test of hypotheses and the structural model

The theoretical model and hypotheses are tested for fitness with the data as shown in Figure 2.



A structural equation analysis was performed through the use of AMOS 7.0 (Arbuckle, 2007). The standardized estimates are reported for ease in interpreting model parameters. Model fit was established by examining a combination of absolute and incremental fit statistics. Absolute fit statistics used in this study included the traditional chi-square test of exact model fit, the chi-square/degree of freedom ratio (χ^2/df), and the root mean square error of approximation (RMSEA: Steiger, 1990). Incremental fit statistics were also chosen for their ability to evaluate different aspects of model fit. The two incremental fit statistics chosen were the Tucker Lewis Index (TLI: Tucker & Lewis, 1973) and the Comparative Fit Index (CFI: Bentler, 1989).

toward using multimedia technologies by rating from 1 for "Strongly Disagree" to 4 for "Strongly Agree". The reliability of this construct was 0.78. Finally, the intention to use multimedia was measured by asking respondents to rate their scale of intention to use multimedia from 0% (Will not use it) to 100% (Will use it). The item asked "What is the possibility that you will use multimedia in your future teaching?"

RESULTS AND DISCUSSION

Descriptive statistics of the variables

Findings of this study showed satisfactory level of readiness among teacher trainees. Respondents acknowledged having good knowledge (3.77) and high positive attitude (3.07). They also positively perceived the usefulness (3.36) and ease of use (2.98) of multimedia and indicated high intention to use (78.47% upon 100%) multimedia in classroom instruction.

For the chi square tests, a significant value relative to the degrees of freedom indicates that the model does adequately fit the data. Thus, a good fitting model is indicated by non-significant results from these tests. In general, χ^2/df ratios of less than 2 are considered to be indicators of good model fitting (Crowley & Fan, 1997). The NFI, TLI and CFI vary along a 0 to 1 continuum. Values greater than .90 and .95 reflected an acceptable and excellent fits to the data, respectively. Finally, the RMSEA values at or less than .05 and .08 reflect a close and reasonable fit respectively (Schumacker & Lomax, 1996).

The Chi-Square Goodness-of-fit statistic with 37 degrees of freedom was 51.35 ($p > .05$). The Normed fit Index (NFI), Tucker Lewis Index (TLI), Comparative of Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA) were .95, .97, .98 and .045, respectively. All loadings of items on their targeted factors were high, statistically significant, and above 0.60. The results of the structural model showed that the model as a whole explained 30% of the variance in intention to use. The explained variance in perceived usefulness, perceived ease of use and attitude was, 33%, 22% and 40%, respectively.

The findings provide support for Hypothesis 1. There were statistically significant path coefficients for both $H_{1(a)}$ and $H_{1(b)}$, indicating that teacher trainees' perception of multimedia usefulness directly influenced the intention to use multimedia in classroom instruction ($\beta = .19$, $t = 2.4$, $p < .05$) consistent with Ahn, Ryu and Han (2004) but inconsistent with Saade, Nebebe and Tan (2007) where relationship between perceived usefulness and intention to use was fully mediated by attitude. However, in hypothesis, $H_{1(b)}$, the results showed that relationship between perceived usefulness and intention to use was also mediated by attitude towards technology ($\beta = .19$, $t = 2.1$, $p < .05$).

As predicted by set of Hypothesis 2, perceived ease of use multimedia had a significant influence on attitude ($\beta = .51$, $t = 4.8$, $p < .05$) to affect the intention to use multimedia. This finding is consistent with Saade, Nebebe and Tan (2007). A significant relationship was also found between perceived ease of use and attitude and mediated by perceived usefulness ($\beta = .38$, $t = 4.1$, $p < .05$). Perceived ease of use also positively influenced intention to use multimedia ($\beta = .21$, $t = 2.0$, $p < .05$).

Regarding Hypothesis 3, attitude significantly correlated to intention to use ($\beta = .25$, $t = 2.5$, $p < .05$). This finding was also similar with Saade and Galloway (2005). In Hypotheses set 4, the findings also support that knowledge in multimedia positively influenced perceived usefulness of multimedia ($\beta = .29$, $t = 3.2$, $p < .05$) and ease of use ($\beta = .47$, $t = 5.1$, $p < .05$), and led to positive attitude, which in turn, positively affected intention to use multimedia.

CONCLUSION

This paper discussed a multimedia technology to support teaching and learning process. The findings suggest that computer knowledge can positively influence perceived ease of use and perceived usefulness of technology multimedia

in teaching. These two factors will then determine users' attitudes towards multimedia, which in turn predicts intention to use multimedia. All these factors are believed to predict actual usage (Davis, 1989) of multimedia in the classroom. This study provides evidence for the applicability of Technology Acceptance Model in multimedia context. It points to the importance of knowledge in multimedia in predicting multimedia usage, thus engaging students in lifelong learning. Thus, curriculum for teacher education should equip teacher trainees with sufficient computer knowledge to empower them to use multimedia in their future teaching. Users with adequate knowledge about technology will also develop positive computer attitude. The significant direct effect between PU, PEU, and attitude shows how these three factors can directly influence intention to use multimedia. Computer attitude partially mediated the relationship between PU and PEU, and intention to use multimedia.

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ACCESSIBILITY TO LIFELONG LEARNING OPPORTUNITIES IN THE LIGHT OF THE LISBON AGENDA – ADULT EDUCATION CENTRES: A GREEK CASE STUDY

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ABSTRACT

The present paper reports the findings of three case studies, relating to the promotion of openness and accessibility to adult education. The research was launched in three Adult Education Centres in Northern Greece, attempting to assess their efforts to deliver educational services to all citizens and promote adult learning.

KEYWORDS

adult education – accessibility – Lisbon agenda – KEEs

INTRODUCTION

Post-modern European societies are weighed under by the impact of socioeconomic internationalisation, digital technology advancement as well as demographic reallocation (Giddens, 1990; Lyotard, 1984). Moreover, the Union enlargement and emergence of new competitors (e.g. China) intensify increasing problems, such as competitiveness deficiency and rising unemployment, urging the need for reforms able to reinforce economic effectiveness, promote excellence in knowledge and technology, as well as enhancing social cohesion (De la Fuente & Ciccone, 2002; OECD, 2003; Psacharopoulos & Patrinos, 2002).

In this context, investment in human capital emerged as core priority at the Lisbon European Council, denoting the aim “to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth” (European Council, 2000:2). The Lisbon Council decided on not only a radical transformation of the European economy, but also a challenging programme for the modernisation of social welfare and education systems, referred to as the “Lisbon agenda”.

THEORETICAL FRAMEWORK

To meet the demands of overall development and economic growth, the objectives set by the Lisbon agenda focus on two closely interrelated parameters: a) restoring full employment and b) enhancing social cohesion. Nevertheless both of these objectives are strongly conditioned by a third variable: accessibility to knowledge throughout one’s lifespan. The future of the European economy (and society) depends on the skills of its citizens, prioritising thus their continuous updating on the grounds of increasing general levels of competence, both to meet the needs of the labour market and to allow citizens

to remain functional within the knowledge societies (European Commission 2003). To this end, there should be provision of interconnected measures to overcome the multi-dimensional barriers to participation, which include bringing high quality information closer to the learner and bringing learning closer to learners in their communities and workplaces (European Commission, 2007).

In compliance with the Lisbon agenda mandates, during the period 2000-2006, Greece emphasised investment in human capital in order to strengthen productivity and development, through making extensive use of the third Community Support Framework funds (Panitsidou, 2008). Nevertheless, the participation percentage of adult population in Lifelong Learning (LLL) was estimated at 1.1% in 2002, the lowest among member states, calling for further measures in order to extend educational chances to the entire population.

Action was taken through the establishment of Adult Education Centres (KEE), the first strand of local learning centres in Greece, operating a network of branches in both urban and rural areas. Totally, 56 KEEs have been put in operation since 2003 in all regions of the country, while the total number of citizens having taken part in the programmes during the period 2003-2006, was 172,461 people, a favorable outcome, promoting KEE to be one of the most significant institutions in the field of LLL, in Greece.

METHODOLOGY

Aims of the study

Due to lack of relevant research in Greece, highlighting the aspect of accessibility to adult education programmes, it was deemed significant to launch a qualitative research in KEEs. The aims of the study were two-fold, transcribed into research questions, which guided the procedures and practices throughout the study:

1. To investigate and identify the factors impacting on broadening access to education and training programmes for all.
2. To identify whether the initiatives succeed to promote equal chances to education and training for all citizens.

Case studies

To meet the aims in this study, the research approach adopted was that of a “case study” in order to respond to the need for in depth insight of the undergoing procedures in the institution and trace interactions among events and situations (Cohen & Manion, 1994; Verma & Mallick, 1999).

According to Merriam (2001), the researcher needs to select a case or sample from which the most can be learned. Strauss and Corbin (1990) recommend including cases in the sample that maximise and minimise similarities and differences. Thus, three Centres (operating in Rodopi, Imathia and Thessaloniki) were selected in respect to urban and social structure of the area, so as to represent significant socio-economic traits of Greek communities, likely to influence their activities. In detail, the Centre operating in Rodopi was selected due to the presence of a large minority population. According to the 2001 “National Statistical Service of Greece” inventory 50% (55,000) people of the total population are Muslims, with extremely low participation in secondary education (8 out of 10 people fail to complete secondary education). The Centre operating in Imathia was selected because of the strong presence of a rural population in the area (35%), and finally, the Thessaloniki Centre was selected as an example of an Adult Education Centre operating in a purely urban area (97.3% urban population).

Interviews

Qualitative data were collected through 12 semi-structured interviews, in order to allow flexibility for the researcher to obtain explicit information (Cohen & Manion, 1994; Verma & Mallick, 1999). They were conducted from 23/1/2007 to 8/3/2007 with KEE administrators and educators, using the random sampling method. The length of the interviews was about 60 minutes, conducted in person in a relaxed atmosphere, where the interviewees were encouraged to freely express their ideas. All interviews were tape-recorded and transcribed.

The interviews were carried out using a research tool constructed for the specific research, based

on relevant literature, European Commission Reports, and the findings of a pilot interview conducted a year earlier with a KEE administrator. The questioner included open ended questions requiring descriptive answers, to encourage conversation which prompted spontaneous information.

Method of analysis

The data analysis was completed at three levels, “open coding”, “axial coding” and “selective coding” (Strauss & Corbin, 1990). Initially, constant comparative analysis was used to develop descriptive codes (Miles & Huberman, 1994), conceptualising and categorising the transcribed interview data. By comparing the codes (labels) that had emerged across all interviews, five categories were identified that were congruent, mutually exclusive, and exhaustive. These categories were “provision centred approach”, “targeted action”, “bringing learning closer to home”, “distance learning” and “cost”.

At the second stage, by utilising a coding paradigm involving conditions, context, action/interactional strategies and consequences, an attempt was made to identify and define connections between categories and reach grounded conclusions. Finally, the core category was selected, systematically relating it to other categories, validating relationships and filling in categories that needed further refinement and development, so that recommendations could be made.

RESULTS

Course provision

To broaden access to education and training programmes, KEE adopt a provision centred approach, providing a wide range of courses, in order to attract an equally diverse group. There has been a significant rise in the number of subjects offered since first in operation in 2003, beginning with 10 learning objectives and reaching 96 in 2006. The wide range of courses consequently encourages responsiveness to both local and personal needs. The general course subjects provided by KEE, are the following:

- Greek Language – History
- European Languages – European History
- Basic Knowledge of Mathematics – Statistics
- Information Technology – Communications
- Economy – Management – Business
- Active Citizen: Rights – Obligations / Household Management

- Culture – Arts – Free Time Management
- Special Programmes

Targeted action

Targeted action is taken to attract socially deprived groups relating to social and cultural barriers which, although in need for education, are the least likely to participate in adult education programmes. Action is therefore focused on vulnerable social groups, such are:

- Prisoners. Especially the Thessaloniki Centre offers at least 2 to 4 programmes a year to prisoners. The enthusiasm with which they participated in the programmes was underlined by interviewees.
- Romas. They are considered by interviewees the hardest group to reach, because of failure to attend regularly. Moreover, most times they have made financial claims in order to participate. Nevertheless, there are cases of gypsies attending mixed classes, but no record of purely gipsy classes.
- Migrants. Even though, migrants' education and training is part of a separate programme, a large number of migrants attend KEE courses.
- The unemployed. Many unemployed citizens attend KEE courses although once more, there are other institutions operating in the field of education and training for the unemployed.
- Minorities. During the period the interviews were carried out at the Rodopi Centre, there were 30 to 35 programmes in operation for the Muslim minority, all of which focused on language and communication. The demand for new classes amongst minorities was highlighted by interviewees.
- Drop outs. KEE programmes manage to attract groups which have been marginalised within the formal education system and failed to complete secondary education.
- The elderly. Cooperation with "Centres for the Elderly" (KAPI) has proven fruitful, as it attracted many elderly citizens, who are referred to as "enthusiastic participants".

The interviewees recognise the significance of the Centres' action to attract participants, identifying that numbers would have been lower if targeted action had not been taken. In order to reach the target groups and make the centres

operate successfully, it appears important to approach "key persons", as well as promote public relations, especially with local authorities. One comment summed up the feeling that "it is essential to build an atmosphere of mutual trust, openness, honesty and acceptance, especially with minority groups, who are initially extremely reserved and suspicious, since the educators are carriers of a differentiated religion and culture".

Bringing learning closer to home

Accessibility is enhanced through a "bringing learning closer to home" approach. This is attained by operating courses at decentralised locations to reduce the distance. KEE promote community-based learning, having education delivered closer to learners in their communities. Programmes are located in a wide variety of local venues, including the use mainly of schools, as well as local community centres and public libraries. Through adopting an active approach to the engagement of local authorities, they undertake the commitment to enhance the social and economic development of the area they serve.

In detail, the Thessaloniki Centre provides courses in 19 Municipalities, the Rodopi Centre in 8 out of 12 Municipalities, whereas the Imathia Centre operates in 7 out of 12 Municipalities of the Prefecture. Lack of cooperation with the remaining Municipalities is attributed to the distance from the capital city, lack of interest, lack of suitable venues and unwillingness of practitioners to move.

Distance learning

On the grounds of the EU mandates for enhancing accessibility to lifelong learning courses through ICT use (European Council, 2001), KEEs offer a context for learning at a distance. The "Centre for Education and Training at a Distance" (KEENAP) (www.keenap.gr/keenap), was put in operation in 2006. Distance learning at KEE aims to facilitate individuals who would otherwise be unable to attend courses due to time or distance (e.g, working people, parents and inhabitants of distant areas), to take up lifelong learning activities. Nevertheless, the courses offered at a distance are still rather limited:

- Information Technology – Communications
- Economy – Management – Business
- Educators training

Cost

The issue of cost is vital to enhance accessibility. Eliminating cost, along with open entry

requirements, are major parameters in enabling access to courses for all social groups. Nevertheless, as was reported by all the interviewees, a certain level of costs would make the commitment increase, as individuals sometimes feel that free courses or activities cannot be taken seriously. Thus, interviewees were in favour of low tuition payment, which would increase commitment, raise the Centres' status and discourage individuals lacking substantial interest, without seriously limiting participation. That way, the quality status of the courses could be further improved.

However, the social role of the KEE should be preserved by financing and ensuring the participation of socially vulnerable groups to sustain contribution to local communities' development whilst enhancing social cohesion.

CONCLUSIONS

The need for high quality accessible adult learning systems is no longer a point of discussion for member states in the European Union, given the challenges Europe faces at present and in the coming years. (European Commission, 2006). Thus, all measures taken in order to broaden access and increase adult participation levels in education and training are of critical importance, particularly for individuals least prepared or inclined, or with little opportunity to learn. That way, all citizens will have the chance to participate effectively in modern economic, social, cultural and political context whilst at the same time reinforcing the promotion of overall development, employment and social cohesion (Halami, 2000; Pearce, 2000).

On these grounds, Adult Education Centres take serious action to provide, through educational and training programmes, all citizens (18 years and older) with the chance to update and upgrade their existing knowledge and skills. The establishment of KEE made available to all Greek citizens a multitude of quality educational alternatives adapted to individual needs. New target groups were reached through systematic targeted action, including people with lower levels of initial training, the unemployed, the elderly, migrants, illiterate people and young adults that drop out of education.

In the light of the research findings, most barriers to participation are effectively overridden by the KEE activity. In detail, marketing and public relation policies with reference to cooperation with local authorities play an important role in providing citizens with timely and explicit information on KEE courses, aiming to promote adult education and establish a culture of lifelong

learning. Courses are provided close to home and joining them doesn't involve any cost or registration prerequisites. Moreover, there is relevant flexibility in timetables, taking into consideration personal engagements and demands. Finally, it is made compulsory that practitioners teaching in KEE courses undergo training on the learning principles of adult education, aiming that an open, friendly and relaxed atmosphere is established during courses, so that learners feel confident to express themselves and take active participation in the learning process.

What could be referred to as a deficiency in the KEE operation is financing. KEE operate under mainly EU funds, a parameter that prohibits flexibility in operation and full alignment with local and personal needs. A major problem which emerged is lack of autonomous premises. Offices are ceded by local authorities, while the venues where courses take place, are mainly schools, or local community centres and public libraries. Since attractiveness of the learning environment is crucial to promoting adult learning amongst citizens, we deem it important that social partners should be further involved in the Centres' operation. That way, information on courses could be further encouraged, participation increased and more funds raised, to further the quality of the programmes provided and moreover ensure continuance in their operation when European funding ceases.

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“IS THIS THAT WARM FUZZY STUFF?” SUCCESSFULLY ENGAGING FIRST YEAR MULTIMEDIA STUDENTS IN GROUP PROCESSES

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ABSTRACT

The cohort was resistant and unresponsive. They were resentful that this unit was now a core in their degree. How was I to engage these students? This paper represents my reflections on a journey of adaptation and innovation from the hostilities of week one to the successes of week 12.

KEYWORDS

First year – engagement - assessment - innovation

INTRODUCTION

This paper initially presents a personal reflection on a teaching experience within a university context. The experience was the most challenging yet rewarding, teaching experience of my career thus far. I have often reflected on why it was an immensely satisfying teaching experience. I always come back to the fact that not only was I fortunate to witness student attitudes change but also to initiate and nurture that change. Another contributing factor to the quality of this experience must have been my assumption that it was probably going to be the easiest teaching I had done. This could not have been further from the truth. In fact never before had I agonised over, lost sleep over and had to work so hard over a group of students. I guess this made success even sweeter. I invite readers to share the story which is followed by a reflective discussion.

THE STORY

My task

I was asked to take three tutorial groups of 1st year Bachelor of Multimedia students, each group consisted of approximately 20. The students were enrolled in a unit entitled Group Processes. To some extent it was a teacher's dream. The two hour per week tutorials were structured virtually to the last minute. The unit co-ordinator based on another campus, had methodically prepared lesson plans with all activities timed and outlined in depth. It seemed that all I had to do was to follow the plans and guide the students. I was looking forward to my first encounter with the three groups, blissfully unaware of what I would experience.

The student cohort

They were horrible! The students in my first group were not at all happy about having to undertake such a unit. They felt that a study of

Group Processes was irrelevant to their studies and their future careers. Our first class encounter included comments such as: “Is this that warm fuzzy stuff?”; “we’re not interested in people stuff, we deal with technology.”; “who do I complain to about having to do this?” One young male was even prepared to withdraw from his studies. He paced up and down outside the window until he finally decided to return, and as he said: “Just put up with it.” This was not the way I wanted to start any class. I came across a similar attitude in all three tutorial groups. I had never encountered such obvious collective indifference in a higher education context.

Thankfully, over the first few weeks we seemed to arrive at a peace where I went through the motions planned for each tutorial and the students went through the motions in apathetic mode. Tutorials were laborious and lifeless and I found myself not looking forward to them. I deliberated at length over the situation; was I going to be able to engage these students and if so, how? They seemed to have two major issues with the unit. Firstly, they were tired of scenarios and claimed that these activities were silly and pointless. Secondly, they felt that this approach compromised their group experience as they were not a real group.

Assessment difficulties

The first assignments demonstrated a strong argument for change. Most were repetitive, which confirmed that students struggled to find enough to write about class activities and related theory. I suspected that if we dragged the unit along in its current form, the second assignment was going to be equally disappointing, not to mention the ordeal it would constitute for my reluctant students. I approached the unit co-ordinator, who already knew from my communications that things were not going well. I put forward my ideas and got approval to make the changes. The final assignment however had to remain a 2,000 word essay based on group activities and linked to the literature on Group Processes theory. I based my ideas for the

adaptation of the unit on what I saw in the students, their strengths. From my observations, they were practical, experiential learners who liked problem solving and a degree of ownership. I also suspected that they would enjoy some competition.

What now?

The students were delighted to hear about the change and their potential contribution to it. The scripted group activities were now replaced by a project. Each of the three large tutorial groups facilitated by me arrived at a consensus decision (part of group processes theory) on a project. I then divided each large group into three smaller groups. The three groups in group one elected to build a shelter which would hold three people, out of recyclable materials found on campus. The three groups in group two decided to build a flying machine which would be launched from a hill on campus; and finally, the three groups in group three agreed to build boats to sail down a campus water feature.

Students assumed a high level of ownership, and they were responsible for gaining permission from campus security and grounds staff for aspects of their projects. We now had real group activities for students to evaluate. Our tutorial sessions literally came alive with engaged students. My role became the facilitator of three projects. The second assignment was now based on an evaluation of the Group Processes encountered throughout the planning, building and competition day phases of their respective projects. The reluctant students I had in the beginning transformed into highly competitive, enthusiastic learners. The three competition days were a great success, with the students intensely involved in their projects.

While their final assignment remained an essay, there was now a richness of experience from which to draw. The standard of their essays was vastly improved and recorded the Group Processes throughout their projects with discussion based on the literature.

Transformation of the second part of the unit gave the students a real group feel and a heightened sense of ownership in which to evaluate their Group Processes.

DISCUSSION

The desired outcomes of the unit included students gaining an understanding of how groups work, why some groups succeed and some fail. Students would have the opportunity to improve their individual group work skills through practical activities and to develop an awareness of theory to help explain practice. It seemed however, that this particular student cohort would not achieve any of the desired unit

outcomes unless the unit changed, particularly in relation to assessment. The fundamental principle of assessment procedures should be to advocate and reward the desired learning outcomes and associated activities (Crooks, 1988). In addition, while productive group behaviour can be seen as a prerequisite to learning in group contexts, the focus on group process should not overwhelm the focus on learning (Cranton, 1992). Further, adult learners must be able to see the relevance and usefulness of the learning (Kolb, 1984).

These students needed a real group experience to relate to theory, an experience in which they had some ownership. In terms of teaching this cohort I agreed with Ramsden (1992, p.176) "good teaching...engages students actively, is responsive to their needs, and requires the teacher to live with uncertainty". I became a facilitator of adult learners rather than a tutor in higher education. As Cranton (1992, p.76) explained "the role of facilitator is to encourage and support learner growth and change by responding to the needs expressed by the learner". It was not my role to control or to enforce my ideas, but instead to assist students to accomplish what they wanted. In terms of this unit, I needed to facilitate the opportunities for students to develop the Group Processes skills which would be valuable to them as students and in their careers. The ability to work effectively in a team is widely acknowledged as an important workplace skill. In fact, Mayer (1992) advanced team work as a key competency. Catts (2004, p.10) further expanded the notion of team work as the skill to work with others "that depends on trust, collective well being, and a rich fabric of inter-dependencies".

Universities often do not lend themselves to more creative ways of delivery and assessment. While the facilitation of learning within a traditional university context and university unit structure can be challenging, it is not impossible. In this case we arrived at a compromise, the university still got its standard academic essay to satisfy assessment requirements, but the experience to inform that essay was adapted to student needs. In higher education assessment is sometimes viewed as a way to reward or punish students through the allocation of grades. However, as Ramsden (1992, p.186) warns: "Seeing assessment as an external imposition to be negotiated in order to earn a grade, rather than a way of learning and of demonstrating understanding, is an optimal recipe for surface approaches". The unit was now akin to an experiential learning experience. According to Kolb (1984) experiential learning is a process

developed through the experience of four stages: concrete experience, reflective observation, abstract conceptualisation and active experimentation.

Apart from an experiential learning experience, the students were also engaged in a valuable cooperative learning experience. Students, who interact with each other, question, negotiate and analyse their learning experience, (as these students were now doing), develop a deeper approach to learning. Productive work with peers in the pursuit of common learning objectives can also lead to improved student motivation (Slavin, 1987). Further, as found by Nichols and Miller (1994), student groups in cooperative learning contexts, displayed intrinsic focus on learning goals and on the subject itself. My students worked excitedly on their projects as highly performing groups or learning teams. In discussion about the work of Tyson & Gregory (2002), this experience can be seen as an experience where “the excitement is maintained because the process is based on fostering an on-going search for learning, rather than the achievement of a fixed state of knowledge” (Catts, 2004, p.10).

My students were Multimedia students who were used to assessment based on projects, themes and other innovative approaches simply because of the nature of multimedia itself. It made sense therefore to take a similar approach for the Group Processes unit. Multimedia based projects as argued by Agnew, Kellerman and Meyer (1996, p.9) provide students with the opportunity to “achieve high self-esteem, ...increase their ability to function as self-directed learners, to learn to think effectively, and to practice problem-solving and decision-making.” These abilities contribute to the development of a lifelong learner.

Lifelong Learners

In the field of multimedia given the rapid advancement of technology and its capabilities, lifelong learning can be seen as an essential element of professional development. Non-technical learning objectives such as the objectives found in the Group Processes unit however are equally important. While Justo & Dibasio (2007, p.2) view self-directed and lifelong learning as “complex psycho-social phenomena”, their experiential engineering program highlighted the need to develop student capacity at “the interface of technology and society and in the process to develop capacities for teamwork, written and oral communication, critical thinking and cross-cultural appreciation and collaboration”.

Higher education can play a pivotal role in the facilitation of technical and non-technical capability. Graduates who develop these skills are well prepared to be high achievers across all aspects of the workplace. This may require universities to rethink how they do things. Catts (2004, p.5) argues “the responsibilities of universities to develop capacities for professional practice, is a basis for rethinking entry requirements, syllabus content, and the very structure of universities...this strengthens the justification for a role for HE in developing lifelong learning capacities.”

The Importance of Reflection

The phase when a group’s purpose for existence comes to an end is referred to as the concluding phase or adjourning/mourning phase (Tuckman, 1965). Although the Group Processes students had the opportunity for reflection through the analysis of their project experiences, the conclusion phase of the unit was an opportune time to debrief and reflect. Reflective activities can constitute valuable development and learning for students on the completion of a project (Catts, 2004).

Justo & Dibasio (2007) in their experiential learning program research found that a program involving project work needs to assist students to assess their experiences at the end of the project. Some students however may not have developed a reflective process or may take some time to develop their reflective process. This is why some scaffolding of the concept is necessary. Educators cannot assume that students make connections between aspects of a unit unless we provide them with a structure (Catts, 2004).

In terms of my reflections, as I worked with the groups in the conclusion phase of the Group Processes unit, I found it hard to believe that they were the same students I encountered in week one. My only regret was that we had to go through those first few unproductive, difficult weeks with the unit the way it was. I did not get the opportunity to teach this subject to multimedia students again, but I wonder whether another student cohort in the same unit would have presented as different learners with different needs, requiring a different response. As usually seems to be the case, my reflections not only analyse the teaching experience but also raise numerous questions. There seems to be scope here for further research related to the uniqueness of the student experience. Post project reflective activities perhaps as journal entries or structured conversations would generate more insight into the student experience. This could in turn suggest more practical ways to complement experiential

project based learning within a university context.

A happy ending

Student feedback indicated the positive transformation of the unit. We managed to learn a lot from each other. I discovered that they were very practical hands on students, who were highly competitive and actually great fun. The students had the opportunity to learn a great deal about Group Processes in a way they negotiated themselves, as real groups. They also had the opportunity to learn from and about each other and finished the semester with new understandings and friendships. Several students felt that they had also learnt new things about themselves. In fact, many students believed that the unit should occur in their first semester (rather than second semester) to facilitate students getting to know their peers. The group processes experience even carried over into private spheres. We discovered that there were a number of musicians in the cohort. Some of the musicians combined their talents to form a local rock band. The final 'icing on the cake' for me, was that I had the great honour of being personally invited to their debut performance.

CONCLUSION

My students began as reluctant learners who transformed into engaged learners. This change was clearly linked to the structure of the Group Processes unit, particularly to assessment. These students needed to see the value and relevance of the unit. They needed to have a sense of ownership over their learning in a context of experiential and cooperative learning. An important reminder here is that the best intentions of a thoroughly planned learning experience may not suit the student cohort. As a result, assessment will not be an accurate reflection of learning and may become an arduous experience for students. Our students do not come as 'one size fits all' therefore it may be necessary to adapt the structure and assessment of a unit to better 'fit' a particular student cohort. In my 13 years of TAFE and Higher Education teaching, never before or since, have I been so challenged and at the same time so rewarded. My semester with three groups of 1st year Multimedia students constituted a steep learning curve for me and I carry it with me to draw on in the future. It was a semester which resembled a roller coaster ride from total apathy to enthused success.

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CASE STUDY: CREATING WINNERS FOR LIFE: A CONSORTIUM BETWEEN CSA (CRICKET SOUTH AFRICA) AND UNISA TO PROMOTE LIFELONG LEARNING

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ABSTRACT

This case study is a product of the consortium, Creating Winners for Life, which was established during 2005 between the University of South Africa (UNISA) and Cricket South Africa (CSA). It gives evidence and reports on the state of success in the facilitation of life-long learning for CSA cricketers and employees.

KEYWORDS

Theories of Lifelong Learning – open distance Learning – recognition of prior learning (RPL).

INTRODUCTION

Cricket players contracted to Cricket South Africa (CSA) are involved in cricket for a short period of their lives. Due to the CSA transformation and development agenda, it experiences a rapid growth in development at schools and its cricket academies. CSA has identified a need for the academic development of its staff in order to prepare them for life after cricket. They are also seeking to ensure that there are sufficient mechanisms in place to build and sustain the capacity of the human resources of CSA in a holistic manner, through offering lifelong-learning packages to suitable learners. The project was envisioned as a three year pilot. The main aim of the project is embedded in the Memorandum of Agreement (2005) in which the broad scope of its collaboration is defined. The project plan focused on four specific deliverables, namely; Skills audit, the development of a database of all CSA cricketers and administrators, development of a turf management course for ground staff, and the accreditation of CSA in-house courses.

This project serves to give impetus to UNISA's vision, "Towards the African university in service of humanity" and also blends with the CSA's transformation agenda to empower its staff through a program of lifelong-learning to pursue their academic career during and after cricket.

The point of departure of this paper is the provision of skills development training opportunities and the retention of cricket players in cricket after their playing days is over. This retention ideal is guided by the principles of Situated Learning theory, as espoused by amongst others Lave and Wenger (1991), Wenger (1998) and Wenger and Snyder (2000).

THEORETICAL FRAMEWORK

Situated Learning theory forwards the idea that "The learner enters into communities of practice as a newcomer, gradually becomes an old-timer, and begins full participation... In this sense, communities of practice share histories of learning." (Kang, 2007, p. 209). This theory is based on two concepts: Communities of practice and legitimate peripheral participation. Communities of practice imply "participation in an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their communities" (Lave & Wenger, 1991, p. 98) while legitimate peripheral participation deals with the process through which newcomers become part of communities of practice. If applied in simple terms to the work environment of the cricket industry our project ideals map into Kang's description of situated learning theory as follows: An apprentice cricketer enters into a community of practice, i.e. he is newly introduced to the game, and, after having been a newcomer, gradually becomes an old-timer as he approaches the retirement age of cricket players, during which time he can become involved in other cricketing activities, namely administration, management of grounds staff, corporate communication, marketing, cricket commentator etc. He remains within the cricketing fraternity but the identification of a new role in the cricket industry involves an adjustment of the individual's centredness, i.e. he moves to the periphery of a new challenge while not moving totally outside the centre of the community of practice. This view of situated learning theory has not been advocated before and can only exist in a multi-faceted community of practice.

Meyer (2005, pp. 1-10) states that contemporary science of human resource management encompasses all the processes, methods, systems and procedures employed to attract, acquire, develop and manage human resources to achieve the goals of an organisation. It refers to the

process of getting people into the organisation and then to develop them and keep them satisfied so that they would like to stay with the organisation and contribute to productivity. Career management is a system of human resource management, used by the company to look after the employee in terms of his or her career development. Many companies also have training and development programmes in order to ensure that employees acquire the necessary skills and knowledge to do their work effectively. Some companies also call their training function, the learning and development function. The notion of a system for career path development gives credence to our project which encapsulates deliverables such as a skills audit of Cricket South Africa employees, the development of lifelong- learning career plans to promote employee satisfaction as well as the possible retention of employees in the cricket working environment.

Lifelong learning advocates the idea that "It's never too soon or too late for learning", a philosophy that has taken root in a whole host of different organizations. Lifelong learning is attitudinal: that one can and should be open to new ideas, decisions, skills or behaviours. Lifelong learning throws the axiom "You can't teach an old dog new tricks" out the door. Lifelong learning sees citizens provided with learning opportunities at all ages and in numerous contexts: at work, at home and through leisure activities, not just through formal channels such as school and higher education (*Lifelong learning*).

Olesen (1996:226-242) stated that in educational debates lifelong learning has again acquired the status of a key issue. Lifelong learning seems to be a meeting point between different critical traditions sharing an emphasis on examining education and learning in a context of societal and cultural historical development. As a discourse of education, lifelong learning has a radical built-in assumption, which is also fed by the economic concerns: it assumes that learning takes place in all spheres of life, not only in schools and institutions. To this Olesen (1996:240) adds the words "... and Life wide" to the idea of lifelong learning. This view of education relativizes the importance of schools and intended education, on the one hand emphasizing the limits of the modern disembedding of learning from basic social structures and on the other hand also opens our eyes to the immense potential of self-directed learning outside schools.

Pityana (2008:5) emphasized the fact that UNISA in its capacity as the only dedicated Distance Learning institution in Southern Africa, is keenly aware of the role that ODL can and must play in meeting the educational and developmental needs of our Continent into the 21st Century and beyond. Open and Distance Learning (ODL) brings into the learning bracket many whom our societies had deprived of opportunities for education either because of poverty, war and conflict or due to family circumstances. It gives effect to the lure of lifelong learning. ODL's technology orientation and its focus on learner support hold the promise of access, girded by appropriate support at levels that could facilitate the development and advancement of the whole of society.

Deputy President of South Africa, Ms Phumzile Mlambo-Ngcuka, highlighted the fact that currently in South Africa the skills shortage and inadequacy is so glaring, that lifelong learning must be seen as a way of life. Basic adult education is only a stepping stone to those already in possession of certificates or qualifications, affording them a means for self-improvement and enabling them to move from being qualified to being able (Mlambo-Ngcuka, 2006:2).

PROJECT METHODOLOGY

The project plan was divided into four phases:

- Skills audit of all Cricket South Africa (CSA) employees
- The development of a database of all CSA cricketers and administrators
- The development of a turf management course for ground staff
- The accreditation of CSA in-house courses

Skills audit of Cricket South Africa employees

The objective of the skills audit was to identify the different skills of cricketers and administrators and to analyze their career development needs, which is a recognized Human Resources function. This skills audit differs from a standard skills audit in that there were no existing skills to use as a measure. The method used for the skills audit was based on the internationally acclaimed Recognition of Prior Learning (RPL) guidelines which are covered in, amongst others, De Beer, Smith, Smith, Marx, Sookdeo & Payne (2007). This was due to the fact that there was no profile of skills available for cricketers and Administrators. The needs analysis focused on researching the needs of prospective CSA learners in order to assist UNISA in the development of effective learning programmes towards meeting those needs.

The Skills Gap (needs) analysis prepares the foundation for career development and comprised of the following key deliverables:

- Develop a personal portfolio for each participant
- Gap analysis to determine development gaps/learning needs of CSA employees
- Individual assessment reports and development plans
- Accredited courses to be sourced and customized
- Learning interventions to be conducted
- Promote Research and increase research capacity aligned with CSA national priorities for knowledge development

The Skills gap analysis is linked to career development as defined by Schreuder and Theron (1997, p. 14) which states that:

“...a career is the evolving sequence or pattern of a persons work experience during the course of a lifetime...”

Development of data base for cricketers and administrators

The purpose of the database was to identify and document the detailed information regarding the cricket fraternity. The formation of the database is the result of the outcomes of the skills gap analysis (audit) and it forms the foundation for all future lifelong career planning.

Development of turf management course for ground staff

Focus groups will be used to obtain information from the different levels of ground staff to determine their needs. Each franchise will form its own focus group, constituted by members of the different levels of cricket grounds in the area. As opposed to individual interviews, with a focus group a large number of people can be reached in a relatively short period of time.

Researching the needs of the Ground Staff

Deliverables

- Focus group reports
- Development of unit standards
- Development of (practical) course material
- Training schedule

Analysis of Cricket South Africa in-house courses

Analysis will be based on the National Qualifications Framework (NQF) principles and guidelines by which records of learner achievements are registered to enable national recognition of acquired skills and knowledge,

thereby ensuring an integrated system that encourages lifelong learning. The NQF has ten levels and each NQF level consists of level descriptors that describe the generic nature of the learning achievements and complexity.

PROJECT RESULTS

Skills audit

The outcomes of the project plan was three-fold, namely the identification and development of personal lifelong learning plans, the provision of guidance for career development and the availability of mentoring and tutoring for each of the cricketers and administrators that are involved in the project.

The National Cricket Team, (Proteas) and six Franchise teams were visited and interviewed by the project team, consisting of Prof. Alwyn Louw, Prof. John Smith, Mr. Barnes Sookdeo, Ms. Sarah Radebe, Mr. George Payne, Mr. Andreas Debeer, Ms Christiana Marx, Mr. Gibert Briscoe, and Dr. Elizabeth Smith.

Statistical breakdown of Data Collection/ Skills Audit:

• Road Show	130 cricketers
• Generic Skills Presentation	86
• Individual Skills Interview	79
• Lifelong Learning Plans	76
• Cricketers enrolled	3

Thirteen (33) cricketers enrolled for studies through UNISA.

The road shows and generic sessions resulted in the development of lifelong learning plans for every person who attended the individual session. Data compilation skills audits were derived from individual interviews. Project team members constantly provide the learners with relevant information regarding their recommended studies.

Development of database

The database compiled was based on the names of people attending the road shows, generic presentations and individual skills audits as well as on information supplied by coaches and administrators that contacted the project team personally.

Development of turf management course for ground staff

A curriculum for ground staff was developed and agreed to by all the interested stakeholders. The qualification is structured according to the Unit Standards based qualification.

Focus group interviews were one of the empirical methods that were used to obtain information from the different levels of staff in order to determine their needs within the domain of ground staff. The outcome of these focus groups resulted in the development of a flexible Sports Turf Maintenance program for African conditions.

The Short Learning Program: Sport Turf Maintenance (Practical) and Irrigation process was completed and endorsed by the UNISA Senate in 2007. The writing of the Short

Learning Programme will be handled in two phases. The writers of the first phase will complete the material in July 2008. The appointment of writers for the second phase is due in April 2008.

Analysis of CSA in-house courses

The table below indicates the NQF level conditions and complexities of the two CSA in-house courses in comparison to the official UNISA qualifications. The learnership indicates that CSA can utilize this path.

NQF levels	UCB in house training programmes	Learner ships	UNISA Bridging courses	UNISA short courses	UNISA formal courses
10					X
9					X
8				X	X
7				X	X
6		X		X	X
5	X	X		X	X
4	X	X	X		
3		X			

Table 1: Comparison of UNISA and CSA courses

DISCUSSION

The needs-analysis proved to be enlightening: many cricketers were unsure and worried about what they would do after their cricket career, i.e. would they have to leave their current community of practice or could they remain? There is a definite need for the development of lifelong learning plans, which had to accommodate their compressed cricket schedule. For example, cricketers that enrolled with UNISA did not have to abandon their studies as exam dates were arranged to suit their specific needs.

The database, the first of its kind, is a powerful information tool as it provides real-time information concerning their employee skills and qualifications outside of cricket. Identification of these skills enables CSA to develop talent-management programmes. This facilitates the retention of cricketers who are being enticed by better offers abroad. For example, CSA is now exploring the inclusion of bursaries as part of their package to cricketers.

The development of turf management short courses to suit African needs and conditions is unique. This is great because it gives ground staff with low qualifications (below NQF 3) the opportunity to access the mainstream of learning. What a course of this nature does is to potentially lengthen the membership duration of the community of practice under discussion. Turf management may previously never have been considered as a career by most players but presenting it as a formalised course makes it an attractive related occupation.

Despite the fact that only one CSA training course was accredited, the analysis led to deeper discussions with CSA to consider the joint development of future courseware with UNISA. Should this happen the result will be empowerment of staff as well as enormous cost savings for CSA.

It is considered to be a "pioneering" project in that it was a first for CSA and UNISA. The small victories were wrapped in the fact that we could take the project to CSA cricketers and administrators in remote rural areas and afford them an opportunity to access the academic

world of learning through the development of their first lifelong learning plans.

A number of important issues regarding the pilot project are relevant:

- Although a number of principles guide the project, the project is a **developing process** through which alternatives are evaluated within the project framework and shown to be more or less appropriate and effective in their outcomes and results. Some common **pitfalls** with regard to similar initiatives are to be avoided as far as possible, e.g. Many projects show success during initial phases when a lot of 'new' energy is thrown behind them. Then, slowly but surely, the 'issue' becomes less prominent and 'new' other matters and crises emerge and almost imperceptibly the project dies a slow death. This has been a pattern within UNISA at times, and especially experienced as such by regional employees, and therefore some fears of 'another wonderful effort, but will it be carried through?' exist;
- It is therefore crucial to evaluate and implement changes and initiatives, which are sustainable and viable over time. In order to do so, a number of issues are important:
 - Initiatives must be developed within the framework of reality, such as available infrastructure and human resources;
 - The co-operation at all levels of relevant persons must be sought. This is sometimes difficult to achieve for various reasons:
 - Interacting with all relevant persons is time-consuming, given their 'normal' workload.

The project objectives were achieved despite many environmental and institutional challenges that threatened its success. For example, the compressed schedule of cricketers resulted in a more flexible approach being adopted by UNISA. This prevented cricketers from abandoning their studies.

CONCLUSION

The project plan focused on four specific deliverables, namely a skills audit, the development of a database of all CSA cricketers and administrators, development of a turf management course for ground staff, and the accreditation of CSA in-house courses. All of these deliverables are vehicles which will have the impact of retaining members of a particular community of practice within that community. Cricketers are viewed as valuable members of a particular community who need not exit the community but who may remain members

because of the opportunities offered by "mutual engagement and the pursuit of a joint enterprise" (Kang, 2007, p. 209).

The collaboration between Cricket South Africa (CSA) and the University of South Africa (UNISA) resulted in the development of seventy nine lifelong learning career plans and 33 cricketers enrolled for academic studies through UNISA. It amplifies the idea that "It's never too soon or too late for learning", a philosophy that has taken root in a whole host of different organizations (*Lifelong learning*).

The project was and is a great learning experience for all involved. It laid the foundation for research and the development of new learning programs in partnership with UNISA and CSA to facilitate a lifelong learning path for all stakeholders.

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NURSING STUDENTS' INFORMATION LITERACY SKILLS PRIOR TO AND AFTER INFORMATION LITERACY INSTRUCTION

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ABSTRACT

Information literacy has been identified by the University of Southern Queensland as an essential graduate quality. It has also been identified in the nursing literature as a requirement for nursing profession. Data were collected from Toowoomba and Fraser Coast campuses using a questionnaire to assess first-year nursing students' information literacy skills prior to and after information literacy instruction. The findings indicate that embedding such instruction into nursing courses is beneficial.

KEYWORDS

Information literacy instruction, embedding, problem solving, confidence, information access skills.

INTRODUCTION

According to Jacobs, et al. (2003), an information literate person possesses "...an understanding of the architecture of information and the scholarly process; the ability to navigate among a variety of print and electronic tools to effectively access, search, and critically evaluate appropriate resources" as well as the capacity to organise "...accumulated information into an existing body of knowledge; communicate research results clearly and effectively; and appreciate the social issues and ethical concerns related to the provision, dissemination, and sharing of information.". Through a collaborative approach involving the University Library, and the Learning and Teaching Support Unit, the USQ Department of Nursing and Midwifery has embedded information literacy instruction into the first year of the nursing curriculum in order to introduce students to these essential professional skills. The aim of this study was to (i) determine the information literacy skills and confidence of students entering the USQ to Bachelor of Nursing Program; (ii) to establish if information literacy skills and confidence improve as a result of embedding information literacy instruction into a first semester, first year nursing course; and (iii) ascertain whether there were any differences in information literacy skills and confidence based on the students demographic profiles.

Literature Review

The acceptance of information literacy skills as an essential quality of undergraduates is widespread (Hartmann, 2001; Jacobs et al., 2003; Shorten et al., 2001). Being able to locate, retrieve, assess and adequately use information has always been an important part of learning particularly in an academic setting. However,

education facilities need to provide students with the necessary skills to navigate their way through the various information pathways, both online and otherwise. Moreover, in a nationwide review of nursing education (National Review of Nursing Education, 2002) it was put forward that for future nursing professionals to be effective in "the current climate of technological change "...it is crucial that they are able to maintain their competence" and "...develop it through lifelong learning". To achieve this nursing students need the ability to assess and utilise the information found in a meaningful and applied manner.

In the literature on information literacy and the nursing profession (Shorten, et al. 2001) found that integrating information literacy instruction into nursing curricula increases students' confidence. This was validated by the work of a New Zealand research team (Honey, et al. 2006) who found that embedding information literacy programs into the curriculum, rather than running classes as extra- or inter-curricula, was most beneficial for nursing students. Low confidence levels in students is known to adversely affect their learning abilities and information seeking behaviour (Barnard, et al. 2005). Croke (2004) explained that when nursing students were feeling confident in their abilities, they were increasingly able to engage in self-directed learning. This would appear to bolster the presumption that if confident, students will apply their information literacy skills to clinical practice. The literature is clear that information literacy is an essential skill required by nursing professionals (Shorten et al., 2001) in order to provide evidence-based health care.

Research supports the practice of embedding information literacy programs into curricula (Honey, et al. 2006; Shorten, et al. 2001). While there has been some research into the most effective modes on delivering information literacy instruction in universities, there is scant research available as to continuing efficacy, or

whether or not such learning is applied in the professional arena. This preliminary study attempts to bridge this gap in the knowledge by evaluating nursing students' information literacy skills prior to and after information literacy instruction.

METHODOLOGY

After gaining ethics approval to conduct the study data were sourced from both the Toowoomba and Fraser Coast campus nursing students. The students were all enrolled in a compulsory first-year, first semester nursing course that is a pre-requisite to a follow-on second semester clinical based nursing course. Prior to information literacy instruction involving a lecture and tutorials conducted by university librarians a questionnaire were used to assess the first-year nursing students' information literacy skills. A plain language statement explaining the purpose of the study, consent form, and the questionnaire were distributed to all first year nursing students who were in attendance at a lecture in first semester 2007. The same cohort of students were approached post information literacy instruction in a similar lecture situation in semester two. The overall response rate in both campuses was 45 and 56 percent respectively.

The questionnaire used was based on the work of Neely (2000) and Tweedale (2006) and was endorsed by the USQ Learning and Teaching Enhancement Committee (LTEC). Both closed and open-ended questions were included to determine the technical skills, confidence in, and awareness of information access of the students. The students indicated their responses to each of the statements on a five-point Likert-type scale (5= strongly agree, 4=agree, 3= undecided, 2= disagree, and 1= strongly disagree). Data were analysed using the SPSS 14.0 for Windows. Frequency counts and percentages as well as means and standard deviations were calculated for the descriptive data. Appropriate tests were used to determine whether there were significant differences between the groups of students with regards to their information literacy skills based on age, sex, country of origin, highest level of education completed prior to enrolment in the nursing program, prior training on finding and using information and online computer access at home.

The resulting differences in information literacy skills were tested for significance at 0.05 level of

probability with an accompany 95% confidence level. For comparing the preference of sources of nursing information of the students, preference indices have been shown in the contingency Table 2. Preference index of information sources was computed by using the following formula:

$$\text{Preference index} = P_{1st} \times 1 + P_{2nd} \times 2 + P_{3rd} \times 3 + P_{4th} \times 4 + P_{5th} \times 5$$

Where,

P_{1st} = Percentage of students indicating the nursing information source as their first preference

P_{2nd} = Percentage of students indicating the nursing information source as their second preference

P_{3rd} = Percentage of students indicating the nursing information source as their third preference

P_{4th} = Percentage of students indicating the nursing information source as their fourth preference

P_{5th} = Percentage of students indicating the nursing information source as their fifth preference

The possible range of preference indices could be from 100 to 500, where 100 indicated highly preferred sources of information and 500 indicated the least preferred sources of information.

RESULTS

Demographic profile of the students

The majority of the students (79%) were from the Toowoomba campus as compared to 21% from the Fraser Coast campus. The highest proportion of students (28%) was between 16 and 18 years of age compared to 26% aged 31 years and above. The majority of respondents were female (88%) and Australian (83%). International students comprised 17% of the respondents. The highest proportion of respondents (72%) stated secondary school as their entry level of education. Almost half (49%) of students had not participated in classes on finding and using information. Over three quarters (77%) of the students had online computer access at home to use whenever needed.

Information literacy of first year nursing students

The students agreed that accessing information was part of their problem solving skills and their confidence and awareness of information literacy increased between semesters one and two (Table 1)

Area of Information access	Semester one		Semester two	
	Mean	SD	Mean	SD
<i>Problem solving skill</i>	4.14	.54	4.02	.71
I usually try to find information as the first step in solving an everyday problem	4.04	.65	3.95	.85
I usually try to find information as the first step in solving a nursing problem	4.26	.63	4.11	.81
<i>Confidence in ability</i>	3.71	.60	4.06	.63
I am able to find nursing information in the USQ library	3.76	.87	4.13	.85
I am able to find nursing information in another library (hospital, other university)	3.48	.84	3.62	.93
I am able to find nursing information by using the Library database	3.76	.84	4.27	.77
I am able to find nursing books using the Library catalogue	3.75	.89	4.04	.92
I am able to find nursing journals using the Library catalogue	3.78	.70	4.16	.83
I am able to locate nursing information using computer search engines	3.77	.87	4.24	.72
<i>Awareness</i>	4.38	.55	4.46	.53
I am aware that any first search results may not give me the information I require	4.30	.66	4.40	.60
I am aware that the responsibility for self learning rests with myself	4.46	.61	4.52	.58

Table 1 Mean and standard deviation of information literacy of the nursing students

Information literacy based on the students' demographic profile

There were no significant differences in information literacy skills according to highest level of education prior to enrolling in the nursing program. The students who had attended classes on finding and using information prior to their enrolment in the program reported higher problem solving skills, confidence and awareness of information literacy and responsibility for self-learning. Those students who had online computer access at home had higher information literacy skills than those who had no home access.

Female students were slightly more robust in problem solving skills and confidence in their ability to access information. They also demonstrated significantly higher mean ratings in awareness of information than their male counterparts. Similarly, overseas-born students exhibited marginally greater problem solving skills and higher confidence in information literacy ability compared to students from Australia. However, Australian students were more aware of information literacy. As age increased, so did students' problem-solving skills and confidence using Library resources and Internet search engines

Preference of nursing students' information sources

In semester one the most preferred information source was the search engine "Google" followed by "Nursing Journals"; whereas in second semester "Nursing Textbooks" surpassed "Google" for first preference (Table 2).

Nursing information source	Level of preference								
	N	1st	2nd	3rd	4th	5th	Total percent	Index	Rank
<i>Semester 1</i>									
Google	87	64	7	3	13	13	100	204	1
Nursing Journals	63	21	55	14	6	4	100	217	2
Nursing Textbooks	92	30	27	36	7	0	100	220	3
Library Databases	90	18	8	34	38	2	100	298	4
Librarian	65	2	2	5	24	67	100	452	5
<i>Semester 2</i>									
Google	114	22	5	10	25	38	100	352	3
Nursing Journals	114	21	44	20	8	7	100	236	2
Nursing Textbooks	114	30	29	23	15	3	100	232	1
Library Databases	114	26	16	37	15	6	100	259	4
Librarian	114	0	6	9	39	46	100	425	5

Table 2 Percentage distributions of students according to their level of preference in nursing information source and rank

Further, in both semesters the students preferred “The bibliography” as a source for finding additional information from a relevant journal article. However, in semester two, students’ second preference was “keywords”, compared to “the index” in semester one (Table 3).

Source of publications to the article	Level of preference								
	N	1st	2nd	3rd	4th	5th	Total percent	Index	Rank
<i>Semester 1</i>									
The bibliography	79	60	20	6	5	9	100	183	1
The index	62	35	23	26	11	5	100	228	2
The keywords	65	31	25	17	21	6	100	246	3
The table of contents	58	24	22	24	16	14	100	274	4
The abstract	58	22	12	12	19	35	100	337	5
<i>Semester 2</i>									
The bibliography	107	38	13	13	11	25	100	272	1
The index	106	16	21	17	26	20	100	313	4
The keywords	107	21	28	20	17	14	100	275	2
The table of contents	106	4	14	29	27	26	100	357	5
The abstract	109	24	24	20	16	16	100	276	3

Table 3 Percentage of preference in seeking further relevant publications to a given article

Citation recognition

With regard to recognising a journal article citation, the highest proportion (53%) of the students indicated the correct answer in semester one. This increased to 68% in semester two.

DISCUSSION

Problem solving skills

The comparison of information literacy skills showed minor decreases in problem solving skills between semesters one and two. This might not be a true reduction of actual skills because of the knowledge gained in semester two. Students may have become more aware of the set of skills necessary to use information literacy in their problem solving, resulting in a clarification of their perceptions. This was akin to Hartmann’s (2001) finding regarding students’ confusion of information literacy with computer literacy, which Hartmann attributed to their misconceptions about the nature of information literacy.

Based on analysis of the data, it was evident that using information as a first step in problem solving was a skill that increased with age. This is congruent with the notion that age impacts positively on problem solving skills (Ip et al., 2007). Students who were from countries other than Australia displayed more strength in their problem solving skills. This could be related to several factors such as higher levels of education and attendance at information classes prior to enrolling in nursing. Students who had readily available online computer access at home had

better problem-solving skills related to information literacy than those who did not.

Confidence in ability

Increases in students’ confidence positively effects information seeking behaviours (Barnard et al., 2005). The confidence of the first year nursing students increased from semester one to semester two. This is to be expected given the students’ increased exposure to learning experiences (Booth, 2006; Croke, 2004; Hartmann, 2001) as well as embedded information literacy instruction in the curriculum. These increases were significant in all areas measuring information literacy confidence with the exception being confidence in the ability to find information in another library. This could be due to the students having little or no exposure to libraries other than their university library.

No significant differences were found in most areas of information literacy according to whether or not students had attended classes on finding and using information prior to enrolling in the nursing program. Differences that were found related to students’ confidence in their ability to use the library catalogue. In this case, those students who were unsure about whether or not they had attended classes prior to enrolling at university were less confident in their ability compared to those students who had attended such classes. This might be a factor which inhibited their ability to access information. This thought is reinforced by Croke (2004), who states that as students’ confidence increases, so does their propensity to engage in self-directed learning.

The confidence levels of students with readily available online computer access at home were small but persistently higher than those students without online access at home. This could be due to more exposure to online sources of information.

A cross-analysis of data revealed that students' confidence in their information access abilities increased, then plateaued at the 22-30 year age group and receded after this. The 31 years and above age group was least confident in finding information using library databases and computer search engines even though they had the highest level of at home online access in proportion than the other age groups. Likewise Ip, et al. (2007) stated that the acceptance of computer literacy is generally positive in the late teens to early 20's age cohorts.

Awareness of information literacy

Those students who were unsure about whether or not they had attended pre university information literacy classes were less aware than those students who had attended classes. Students were aware of the fact that first search results may not have provided the information they required. Contrast analysis yielded significant results showing higher levels of awareness of information literacy in the group of students with readily available online computer access at home when compared to the students who had no such access. In part this may be because those students with convenient online access at their homes have more exposure to searching for information using Internet search engines.

Based on the analysis of data it was evident that male students were significantly less aware than female students regarding information access overall, and particularly less aware that the onus for self learning rests with the individual themselves. As stated, the highest level of education attained prior to enrolling in the Nursing program had no significant impact on information literacy.

Preferred sources of information

In semester one, the preferred location for sourcing nursing information was the "Google" search engine. This preference changed to "Nursing Textbooks" in semester two. Such a change is to be expected, given that the initial questionnaire was administered relatively early in semester one, and students would have become considerably more familiar with their texts by the time the second questionnaire was handed out in semester two.

The order of preference for the listed options to seek further information from a "relevant journal article" also changed from semester one to semester two. "The bibliography" was the first choice in both semesters although "the abstract" went from being last choice in first semester to third choice in semester two. This increase in the use of "the abstract" as a preference was significant, particularly for those students who attended classes on finding and using information. Cross-tabulation found that this group compared more positively with those who did not attend classes. This may reflect increased student knowledge and familiarity with academic literature acquired through attending information literacy classes.

There was a significant increase in the percentage of students choosing the correct journal article citation. This increase was most prominent, as discovered in cross-tabulations, with the students who had convenient online computer access at home. Attendance at classes for finding and using information did not have a positive impact on students' choices of the correct citation. There was a slight decrease in choosing the correct citation, from semester one to semester two, for those students who attended classes. This would infer that while classes have increased students' confidence in their information literacy skills, they did not necessarily gain adequate knowledge to enable them to correctly recognise journal citations. "Prior education" was the next factor, where students that had completed secondary school chose the correct citation by an increase of 15 per cent between semesters one and two.

CONCLUSION

Embedding information literacy instruction into the first year nursing program is beneficial. As information literacy instruction is embedded into the first year nursing courses, students' confidence and awareness is positively affected by their increased exposure to information literacy in the nursing context. Attendance at information literacy classes improved students' confidence in their abilities to find relevant information and to engage in self-directed learning. Additionally, exposure to the various sources of information increased students' awareness of the scope of information.

Given this evidence, the collaborative approach towards embedding information literacy instruction between the Department of Nursing and Midwifery, the Library and the Learning and Teaching Support Unit ought to be continued throughout the subsequent years of the nursing program. This will improve students' problem

solving skills, confidence in their abilities and awareness of information literacy.

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COMMUNITY SERVICE LEARNING AND REFLECTION: INSIGHTS FROM TWO CASE STUDIES

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ABSTRACT

Community projects designed and implemented by pre-service teachers as part of the service learning component of their Master of Teaching Secondary program at the University of Western Sydney, and my involvement with a community engagement project, provided an opportunity to examine the connections between service learning and reflective thinking.

KEYWORDS

Service learning – reflection – community engagement

INTRODUCTION

Service learning has the aim of enriching learning and strengthening communities. The core concept is the combination of service objectives and learning objectives, with the intention that the activity changes both recipient and provider of the service. (Furco & Billig, 2002; National Commission on Service Learning, 2002). This paper examines how reflection enhances the benefits of service learning based on two case studies: a project of mine and pre-service teacher projects. Key aspects were the development of a reflecting mind and experiencing a sense of agency.

Literature

University students engaged in service learning have been found to demonstrate greater complexities of understanding than a non-service learning comparison group; and when this was combined with reflection they were able to effectively analyse more complex problems (Eyler & Giles, 1999). Service learning has positive effects on university students' sense of social responsibility, enabling them to work with adolescents who have disengaged from formal schooling (Kahne, Westheimer & Rogers, 2000). Additionally, project-based learning, recognised by adolescents as related to life beyond school, can engage students who are disaffected in the school environment (Munns, Arthur, Downes, Gregson, Power, Sawyer, Singh, Thistleton-Martin & Steele, 2006). When students were encouraged to recognise their achievements through self-monitoring reflective processes they were more likely to adopt those processes in their lives in general (Silverman & Cassaza, 2000).

Furthermore, it has been found that teachers who engage in reflection have the potential to improve the sustainability of changed structures and systems within schools (Bulajeva, 2003).

Consequently, reflection is emphasised in the development of pre-service teachers. Research suggests, however, that repeated exposure to reflection, without some assistance with reflection prompts, does not guarantee that beginner teachers will go on to develop critical or higher levels of reflective thinking (Bean & Stevens, 2002).

Participants

My involvement in the first case study was as both participant and researcher. In the second case study, which involved pre-service teachers completing a unit called Professional Experience 3, my role was to record completion of the non-school based experience and the reflections on learning. The unit involved a community service learning experience in which pre-service teachers developed their perspectives of school-aged students. It provided these students with opportunities for teaching disaffected students; and was located in alternative teaching and learning settings. The flagship program of the unit was *Learning Choices Next Generation* (www.dsf.org.au/learningchoices). *Links to Learning* was also designed for students at risk (<https://www.det.nsw.edu.au/eas/youth/index.htm>). *Refugee Action Support* (in partnership with the Australian Literacy and Numeracy Foundation (www.alnf.org/)) had a particular focus on Sudanese adolescent refugees. *Maximising Potential* (in partnership with Future Achievement Australia (www.futureachievementaustralia.com.au/)) offered students the chance to foster leadership abilities in students; and *Beyond the Line* (<https://www.det.nsw.edu.au/employment/teachnsw/btl.htm>) offered the opportunity for an experience of teaching in a rural setting. The reported reflections were drawn from 310 pre-service teachers in 2007. Working with secondary students with gaps in their education and challenging home lives, the pre-service teachers applied their practical and theoretical knowledge to meet specific student needs. The pre-service teachers' reflections were not only grounded in language of the NSW Institute of

Teachers' Standards (NSW Institute of Teachers, 2006), but also prompted by questions from the REAL framework (Munns & Woodward, 2006), which enabled them to focus on their own 'feeling, knowing and doing' aspects of their learning and that of their students.

THEORETICAL FRAMEWORK AND RESEARCH DESIGN

A series of questions relating to 'feeling, thinking and action' (Table 1), from the REAL

framework (Munns & Woodward, 2006), was used as prompts to enable reflection by our pre-service teachers, and myself, in relation to our respective community service experiences; and the same framework was used to categorise the recorded reflections.

Table 1: Questions used to prompt reflection on community service experiences (*from the REAL Framework; Munns & Woodward, 2006*)

Recalling feelings, thoughts, actions

Feeling 1-4	Thinking 5-6	Doing 7-10
What was the fun in your learning? What surprised you about your learning? How does working with others make you feel? How do you feel when it is challenging?	What cooperation helped your learning? What was the challenge?	What new thing can you do now? List your strengths Who helped you the most? In what ways have you progressed?

Developing feelings, thought and actions about learning processes

Feeling 11-13	Thinking 14-16	Doing 17-20
Why were the fun bits fun? Why were you surprised about your learning? Why does cooperative learning make you feel great?	What strategies did you use to learn something important? How did you know that you had learnt something? How does this content relate to something else you know?	What goals did you set for yourself in these activities? How well did you achieve them? What is the evidence of your achievement in learning? What would you change in a similar task to improve your learning?

Translating into concepts feelings, thought and actions about learning processes

Feeling 21-22	Thinking 23-24	Doing 25-26
What did you find to be the most difficult part in discussing your feelings about learning? What did you do to overcome this?	How could you broaden your thinking about what you did during this project? Represent how you think about project based learning (drawing, mind map...)	List three ways the skills you have learnt can be used elsewhere? How you would help someone else to learn something you discovered?

The framework is evolving. It does not yet elicit reflections on values but it does provide pre-service teachers and their students with a flexible structure for their reflection.

Data was collected from the written responses of the pre-service teachers to the reflection questions. Content analysis of responses was used, allowing the application of codes that have been identified and described from the framework. For this paper, three responses were chosen that demonstrated personal growth and change through reflection. As Boud (2001) states, the most important aspect for research into the use of reflective statements is how individuals use reflection to enhance their own learning.

Findings: Case study 1 – suburban youth orchestra

This involved my community engagement experience with a suburban youth orchestra that was encountering a new work by Queensland composer Linsey Pollak. One goal of this music group was to introduce young musicians, who were from varied socio-economic backgrounds, to a wide repertoire that involved an element of creative adventure by attempting unusual projects. Despite this apparently interesting scenario, these musicians were only sporadically engaged. This prompted a range of questions: Why was this so? Were they encouraged to reflect on their learning? Why on a number of occasions had the players commenced a piece of

contemporary Australian work, but no brought it to performance? Our project was designed to address this situation. It involved not only preparing to perform a new work, but also the making of unconventional instruments (or 'found sounds'); and this involved a hands-on experience with both the composer Linsey Pollak and instrument builder Steve Langton. My role was as participant researcher, being involved in both analysing the process and participating in rehearsals and the weekend instrument making workshop.

The instrument making workshop was designed to produce some 90 instruments, mostly from pipes of varied diameters. On the first morning of the workshop weekend, Pollak and Langton established their credibility with the adolescents by demonstrating the sound of the instruments to be made through musical improvisations. They divided the group in half so that they could work in two different spaces. Pollak began work on panpipes, encouraging the students to make a set for themselves, as well as the necessary number of sets required for the work. Langton worked with the other group, sawing lengths of pipe to make the 'thongaphones'.

Each group then changed activity; with the panpipe group beginning to make 'foonkis' (another wind instrument) and the thongaphone group making tuned airbells. This was an excellent tactic to provide new challenges. It also allowed leaders Pollak and Langton to praise work completed in the first activity. The 'foonkis' were designed from a long slender piece of irrigation pipe. The 'reed' was a plastic garbage bag, tightly stretched within the T-joint which formed the mouthpiece. The instrument had two holes drilled and carved towards its end so that simple three note patterns could be played. The adolescents loved making the one or two pitch holes for these. Some of them had never used a drill before and they enjoyed the experience of doing that with supportive guidance. The tuned airbells were empty two-litre soft-drink bottles with a valve inserted, so that tuning could be effected. The students had to adjust tuning and learn about the factors, such as temperature, that would affect the tuning. They needed to learn the principle of testing for the pitch and adjusting that with air pumps.

In the workshop, Pollak and Langton created trust and rapport with the group by modelling the process of making the instruments. This enabled the students to imitate that process, and to improvise on the instruments they were making. The students developed collaborative problem-solving skills as they monitored each others'

work and helped in tuning and achieving sound quality. They experimented with the found sounds, and created their own performance pieces. Even students with 3 to 10 years playing experience were able to return to a situation where sound was new again and exciting. The Sunday experience gave the musicians a taste of what the new sounds for the commissioned work would be like, and it let them savour this before commencing formal rehearsal with the full range of orchestral instruments. The Sunday session focussed on finally assembling the instruments and trialling them together; and also on workshopping the rhythmic and pitched patterns. Langton produced tuned mag wheels, with wonderful bell-like sounds, that he had brought with him to add to the ensemble. The high point of the day were the "jam" sessions during which the players learned their interlocking patterns and began to understand how the music would sound.

Using the REAL Framework, I reflected on the ways the adolescents took on leadership roles, both in instrument making and subsequently in performance. They were open to discussing with me what they felt they had learned; from keeping on going when the task was physically demanding (such as sawing the largest pipes) to thinking out solutions (such as working out tuning problems). They talked of the things that surprised them and how co-operation had helped them. I was also on a journey of discovery myself, particularly about the aspects of the process that most engaged the young musicians. Of course, the weekend provided much more than just an opportunity to make instruments. The adolescents had a rare experience to spend time that had its own deadlines, but was less controlled than their rehearsals. The social bonding of the experience enabled the process of being collectively competent, and of authentically becoming an ensemble. The students were encouraged to actively think and discuss what they were learning; to not only be part of creating a brand new piece of music, but to be able to build the very instruments they were going to play was a rare experience. We hoped that the inspiration to create, compose and build would stay with them into the future.

Case study 2 - Reflections of UWS pre-service teachers

Using the REAL framework, the UWS pre-service teachers reflected on Professional Experience 3 in terms of an opportunity to get to know and respect the backgrounds of students with whom they worked. The core of the reflections completed in Professional Experience 3 was to do with the creation of a learning environment in which adolescents could

experience respect and rapport. Disaffected students are often deprived of this (Munns, Arthur, Downes, Gregson, Power, Sawyer, Singh, Thistleton-Martin & Steele, 2006). For the UWS pre-service teachers, the first priority was the creation of an environment in which their students could collaborate and enjoy feelings of successful learning. The following reflection concerned an experience in an Intensive English Centre (IEC), located in a high school:

I was involved in advising some students how to seek employment or apply for a traineeship. It was rewarding to see students' eagerness to learn and I also felt very emotional because the experience reminded me of the difficult times when I was in an IEC. However, I think this assisted my understanding of the students' needs. I was able to ask them about learning together, which they enjoyed. The majority of students were from Arabic speaking backgrounds or African immigrants. Many students displayed writing difficulties and were not used to school routines. Specialist migrant counsellors provide welfare and settlement support to students, including those from refugee backgrounds. Many students from Sudanese background needed counselling because of traumatic events in their past. It was good to contribute to the counsellor and school teachers' conversations about the best way to satisfy the students' needs.

Another student reflected on her experience with at-risk students:

I found that building these students' trust was essential. And I often found myself asking the question 'Was I or anyone I knew like this when we were at school?' I am glad that I experienced this teaching. Often in school, teachers may not see these students as anything but 'bad kids'. I probably would have been like that, too without this experience. It has certainly changed the way I will approach teaching.

The following student's reflection related to running a project based on hip-hop music, aimed at encouraging students' self expression and creativity:

The students were from a variety of socio-economic and ethnic backgrounds and some of the students had learning difficulties. I learned that the students all faced issues relating to their lower level needs of food, safety and shelter not being met. I felt a humanist approach was needed for these students where their feeling of safety and trust was respected and acknowledged. Once this was established, I provided the

students with a sequence of short activities where their achievement was recognised at the end of each activity. This worked particularly well with these students and during my time at the centre, I noticed a sense of achievement and autonomy had developed within most of the students.

The UWS students used positive reinforcement, patience and humour; and they commonly described the reactions of the adolescents they encountered as 'phenomenal'. They reflected on what they had learned about these adolescents, and about what 'teaching' and 'school experience' could be. They felt that they 'had grown as teachers and saw things from a different perspective.'

DISCUSSION

In each of the community projects described above, the self-regulatory processes encouraged by REAL framework questions became tools for self-improvement as learners (teachers and students) worked towards and adjusted their goals in relation to the specific context. In the community music group with which I was involved, the young musicians found new collective energies and creativity. Additionally, discussion from the REAL questions helped the adolescents identify learning strategies that promoted their success. When UWS pre-service teachers worked alongside specialist migrant counsellors to facilitate the cultural transition and learning progress, they were able to use a simple set of questions, drawn from those they had used themselves, to encourage reflective processes and develop the learner's self esteem. Whether the project-based learning was concerned with making a vegetable garden or building a website, the learning was collaborative and the pride in the sense of competence was collective. Additionally, the discussion from the questions helped the learners identify learning strategies that promoted their success. This aligned with Silverman and Cassaza's (2000) idea that when students recognise their own achievements through a self-monitoring process, they are more likely to subsequently employ that process

CONCLUDING REFLECTIONS ON LEARNING

As this paper has shown, UWS pre-service teachers reflected on what their students felt about learning and could do with newly acquired skills. Reflection on their non-school based experience encouraged them to think differently about teaching. The REAL framework (reflecting on feeling, knowing and doing) provided a way to match the intent of the Professional Experience 3 self-reflection with a schema to adapt and apply directly to the learning that had

taken place. This, in turn, increased the robustness of self-reflection within the unit.

With respect to my own learning, I found myself remembering that there is so much more to being a musician than just 'learning the notes.' I watched the young musicians re-learn this as well; particularly seeing them 'catch' the enthusiasm of the composer and instrument maker. I suspect that the inability to carry through previous rehearsal endeavours to performance was a result of that modelling of enthusiasm being overlooked.

In conclusion, I want to highlight three key points in common in these reflections. The first is about teacher-providers. Each of the projects demonstrated that adolescents (or any people learning in a community activity) can be re-engaged with learning when their achievement is acknowledged part-way through activities, rather than waiting till a whole activity is finished. Such 'staged feedback' enables the person providing service learning to sustain the involvement and develop the enthusiasm of those engaging with learning. The second point is about the people on the receiving side of the service learning. Each of the project participants valued the collaborative aspects of their learning. They valued physically supporting each other, as well as intellectually collaborating in problem-solving. Their learning was enhanced in the 'togetherness' of the activity. Whether this was expressed as developing autonomy, enjoying learning together or becoming a genuine ensemble, the meaning was the same. The third point refers to the reciprocal nature of service learning. Sometimes rapport comes about because both teacher and student have experienced similar problems, as happened in the first of the reported pre-service teacher projects. Sometimes establishment of trust enables deep reflection on the past that has implications for the future. Both the second and third pre-service teacher reflections demonstrated such reflection. Sometimes trust is established by the display of skill and ability freely shared. In each of these projects, trust and rapport between teacher-provider and student-recipient in a community service learning environment was essential.

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INTERACTIVE TUTORIALS PROMOTE EFFECTIVE LEARNING

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ABSTRACT

Learning becomes more effective when students participate with a high level of engagement. Many modern education theorists support the view that students need to be more actively engaged in the process of their education. This article outlines one attempt to experiment with an interactive tutorial.

KEYWORDS

interactive learning – multicultural – pedagogical

INTRODUCTION

Universities are places of research and learning. But what about research into the ways in which students learn? University lecturers, unlike their primary and secondary school counterparts, generally have little training in pedagogical methods. Halpern and Hakel (2003) in writing about applying the science of learning to the university and beyond state that very little, if any, of our formal training addresses topics like how adults learn, the role of memory, or the transfer of learning. Further to that, today's classes are multicultural which means that many students, new to the country, have difficulty coping with their limited understanding of the English language.

THEORETICAL FRAMEWORK

In the last few decades, several important theories of interactive learning have been developed. Within Western culture, theorists such as Piaget, Vygotsky, Bruner, Kolb and Bandura, to name a few, have each developed theories about learning. If there is one thing that all these educational theorists have in common, it is that students need to play a more active role in their own learning. Borzak (1981) suggested that experiential learning involves a direct encounter with the phenomena being studied rather than merely thinking about the encounter. Bruner (1966) also has said that to instruct someone is to teach him to participate in the process that makes possible the establishment of knowledge. Constructivists suggest that learning is an active process whereby learners construct new ideas or concepts based upon their present knowledge. Inquiry-based learning is also an interactive method of learning by which students learn from asking their own questions and generating solutions (Kwon, Ryu & Shin, 2004; Koch & Appleton, 2007). Such methods enable students to master the knowledge outcomes of their course and also help them to use the critical thinking and inquiry techniques needed to be

good researchers and writers of academic analyses.

Yet, Weimer (2003) maintains that students are still the passive recipients of education rather than active agents in control of their own learning processes. Barr and Tagg (1995) have stated that we now see that our mission is not instruction but rather that of producing learning with every student by whatever means works best. Moreover modern instructors have a wide range of technological innovations at their disposal. Most students are very familiar with these technological developments and their use increases the interest and helps with the engagement of the students.

As an example of interactive learning, Bakke, Faley and Steinburg (2007) describe a unique student-centred curriculum for introducing students to information systems courses. They claim that the students enjoyed the experience, had greater control over the learning process and mastered more difficult material. Another approach with positive results has been described by Law (2007) in Guan; Newby and Nguyen (2007) in California and the United Kingdom, and Seyed-Abbassi, King and Wiseman (2007) in Florida who have provided opportunities to connect classroom learning with practical work experience. Enjoying one's studies and experiencing learning that relates to one's interests is likely to encourage students to make it a lifelong process. Lifelong learning is more likely to take place with people who have had the experience of being involved with their own learning.

METHODOLOGY

The writer, aware of the thesis that interactive learning supposedly heightens the interest of students and increases their learning ability, carried out a series of tutorials designed to actively engage the students. The students were then surveyed by a questionnaire in which they were asked to express their opinions about the teaching methods used. These findings together with the writer's own observations were used to formulate ideas about the success or otherwise of

greater student participation in the conduct of the tutorials.

An experiment was carried out with a class of postgraduate students in the course of "Information Systems Management". It was an ethnically diverse tutorial of 25 international students from 6 different countries. In an effort to know the students better, the writer made a composite collection of the student photographs on a single page and kept it on the lectern. This was in order to get to know the students quickly. Students respond better when they feel the tutor takes enough interest in them to get to know their names (Leong 2005).

Students often seem to retain little of what they study in class and often show little response. Previously the way of conducting tutorials was predominantly textbook-based with the course followed chapter by chapter in the textbook. Previous response by the students had been half-hearted as they played the more passive role of listening to the lecturer's instruction with only occasionally any interaction except for the occasional directed question. A complicating factor in such a multilingual class was that the majority of the students use English as their second or third language. It is not easy for most people to respond orally when they have to do it in a language with which they are not very familiar. In such a situation many students lose faith in their own ability to respond and, though they may have difficulties, they are uncertain about their ability to raise their problems without exposing their faulty language skills. Little wonder they are often seen as passive learners.

The teaching methods used were not necessarily amazingly new to Australian students, but to international students, who are usually only familiar with teacher dominated classes, they came as a surprise. Of course it takes some degree of imagination and creativity for a lecturer to work with innovative presentations. Weimer (2003) has said that although students must do the hard, hands-on work, it is the teacher who has to work the hardest, especially in class. For example, the tutor needs to plan the whole term in advance, not only in terms of content, but also in terms of presentation. It takes time for students to adapt to new methods, but gradually their degree of enjoyment and participation grows. Students must also see that each activity has a basically serious purpose. Meantime in class the lecturer has often to deal with a varied range of questions and be able to help different students with different problems. His responses tend to be more spontaneous as students may come up with unexpected questions.

Within a term, no method was used more than once. Discussions were used but there are various ways of introducing discussion so that one can increase the student input. Students must always feel that discussions are relevant to their study. One example of a different teaching method is the use of advertisements. One topic students had to study was the changing role of information systems (IS) managers. Once, the IS manager only needed technical skills. Nowadays, an IS manager needs multiple skills. "The responsibilities of the head of the IS now go far beyond operating highly efficient 'production programming shops'" (McNurlin & Sprague, 2006, p. 50). IS managers must understand the goals of the enterprise and work in partnership with line managers to deploy IT to attain the organization's goals. They do need technical skills, but there are many other skills they need as well. One tutorial was designed to enable students to understand what skills they need to develop in order to qualify as suitable applicants for jobs as IS managers. In preparation for the tutorial, students were asked to search for advertisements for IS managers and bring them to class. Several students were asked to present the advertisements they had brought to the tutorial and highlight the skills required in the advertisements. Listing the required skills from various advertisements enabled the students to see the skills that they would need. Such skills could indeed be related to sections of the textbook. This method allowed students to see something of the real world in which IS managers work. It confirmed what the textbook was saying.

On another occasion, students were asked to take part in a mock job interview, working from 5 or 6 job advertisements for IS professionals. The writer enabled the students to carry out mock job interviews. This was done on a group basis in which one member of the group acted as an observer and later reported to the class an assessment of how the interview went.

Another method was the use of informal debating on a topic related to their study. This required some time to introduce students to the idea of debating, although the writer used a modified form of debating to include most of the students in the debate.

Video and audio clips available on the Internet were used as starting points to foster discussion on particular topics. Animated pictures which illustrated concepts within their studies were also used to present fresh insight. The Internet is a great source of up-to-date information though it often takes time to find what one wants and to

sift through the vast amount of material for that which is relevant. Students were asked to use the Internet for discussion purposes. Another advantage of using the Internet is that the students usually find the language used on the Internet is more accessible than that in the textbook. The writer, in the past, had experimented with student presentations but had found that this activity is not usually successful with international as it usually ends up as a very formal affair and many students are hesitant in their speaking because of language difficulties. In the more formal use of language with different international students speaking in different accents, comprehension by the rest of the students often becomes difficult.

RESULTS

According to the writer's perception, the students found such methods of presentation not only more enjoyable but more profitable. Their interest appeared to increase and most of them became much more active and alert during the tutorials. Attendance rates ceased to be a problem. There may always be some, usually a small minority, who feel threatened by these more active methods. Students who are acutely shy often find it difficult to speak in front of others. However, as they become more used to this more active tutorial environment, they usually learn to overcome their inhibitions about

participating. Language use is easier when it is conversational or consists of short spoken statements rather than the longer lecture which is usually used in student presentations. This helps the students to grow in confidence. In the writer's experience, many students who began the term as mere observers gradually began to enter into the activities and became more much participative. As their participation increased, so did their interest.

The writer gave each student a questionnaire to gauge their response to the way the tutorials had been conducted. When asked, on a scale of 1-10, how they would rate their interest in the course, there were 6 students who gave it 10, seven who gave it 9, 2 who gave 8, 6 who gave 7 and 4 who gave it 6. Unfortunately, the writer has no figures to compare this against, but he considered the rating higher than he would have gained in tutorials conducted in the traditional way. Another class whom the tutor taught in the following term showed a similar apparent increase of interest and active participation. When students were asked to state their preference for the way of conducting the tutorial, that is, making a choice between a tutorial where the tutor talks most of the time and one in which the students take an active part, 21 out of the 25 voted for the tutorial with student activity, and 4 did not pass an opinion.

Some comments the students made were as follows. Any incorrect language is because this is the actual language that the respondents used.

<i>"This style of tutorial gave a chance to the student to feel he knows something and the tutor to understand the student's standard of thinking or grasp of the course".</i>
<i>"Each student comes up with different views, ideas, and criticisms that will give others a chance to participate and put their views along with the tutor's knowledge".</i>
<i>"It helps students to gain more knowledge of the subject by having more confidence in speaking individually or in groups".</i>
<i>"Unless a student takes part and expresses his point of view, he does not know whether he is right or not, and if he is wrong, he can be corrected and gain more confidence".</i>
<i>"It broadens the way students think". "Feedback helps the tutor to know the level of knowledge that the student has. If students take an active part, it builds the confidence".</i>
<i>"I feel I am important to the tutorial. And if the tutor talks all the time, I may feel sleepy".</i>
<i>It helps to develop our communication skills and confidence".</i>
<i>"Interactive tutorials help the student to grab better notions of concepts and help them relate the knowledge to real life".</i>

No one wrote any critical comments.

The most popular methods used were: organized debates, video and audio clips, general discussion, and mock job interviews. There may have been specific reasons for these choices. Debates always seem to raise a certain level of competition as contrary opinions tend to encourage the participants to take sides. Video and audio clips, if carefully selected, introduces

the students to a topic in the kind of media with which they are very familiar. General discussion arouses a sense of informality that lessens the students' sense of insecurity once they have become engaged in the topic.

The most common threat that students said they felt was having to give student presentations of the kind not used in this series of lessons. When asked if they had any particular problem with

tutorials in which they were asked to participate, very few raised any problems. The most common one was the problem of language. Some students had difficulty with group discussion because of their distrust of their English skills while others found it difficult to understand other students especially those who spoke with a heavy accent.

DISCUSSION

The writer's overall impression was positive. Certain things need to be reviewed to further improve this approach to tutorials. The reluctant student is a problem, but such students seem to form a minority group. Perhaps such students need more positive encouragement and advice on how to formulate their ideas. Encouragement, especially on an individual basis simply needs a word or two given informally. Once students begin to feel that their own ideas are accepted as serious and they find that others have actually understood what they have said, they begin to grow in confidence. Students who feel that they are weak in English often find themselves insecure. In Kolb's (1984) words, a student whose native language is not English have a natural orientation to an assimilation-learning style where thinking and watching is preferred. Tatar (2005) in writing about teaching Turkish students found that some students were unfamiliar with discussion as a learning and teaching method. Lee and Carrasquillo (2006) also found that in Korea students expected the teacher to control the classroom, and open-ended discussions, or exploratory learning exercises were likely to be met with bewilderment. This does not mean that students do not necessarily learn from listening, but for deeper learning they need to demonstrate that they have come to terms with what they have heard. There is such a thing as active listening. The writer's experience is that non-native English speaking students, as they become more used to the more interactive methods, gradually change their attitude and become more participative.

Further investigation needed

It is difficult to assess objectively the results of conducting tutorials in this way. In the real world, most students are concerned about completing the course satisfactorily. With this particular group, there were only two who failed to do that. However, one would need to look at the results over a number of years and compare them with earlier years. This might not be a totally objective case as there could be other variables. For example, the degree of difficulty of the exam might vary from year to year. The natural ability of the student might also vary. A general trend of improved results would appear

to indicate that the students profited from the course.

It would be interesting to see if from being actively participative in these tutorials, students continued to be similarly active in further classes and in other courses. Whether or not participation in such tutorials had an ultimate effect on their later lives, especially in their professions would also be interesting to know but very difficult to organize.

Several students subsequent to their time of study wrote to inform that they had been successful not only in further study but in actually gaining positions of employment. They commented on the interest and confidence that the series of tutorials raised.

CONCLUSION

The writer is convinced that in Australia at least, with increasingly large numbers of overseas students in university classes, much more attention has to be given to the varying needs of individual students including special attention to those with language deficiencies and to the education of lecturers and tutors in pedagogical methods. This requires not only special ability but special training to develop these skills to the full. There will also be a need for a greater degree of flexibility in the way in which students are both taught and assessed. It has been the writer's experience that more interactive classes produce greater interest among students and helps them to grow in confidence as well as to learn more deeply. Such classroom experience is more likely to make them become interested in lifelong learning and more able to adjust to the actual workplace.

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WITH A LITTLE HELP FROM MY FRIENDS: STUDENT JOURNEYS AND WOMEN RESEARCH HIGHER DEGREE STUDENTS

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ABSTRACT

The authors conducted a pilot research project examining the experiences of women who reported negative supervisory experiences during Research Higher Degree (RHD) studies. The participants reflected upon absent/ineffective supervisory practices and the formal/informal supports they relied upon to continue their learning journeys and to achieve success.

KEYWORDS

women researchers - RHD students - RHD supervision

INTRODUCTION

Aspin and Chapman (2000) argue that lifelong learning is triadic with three core elements: economic progress and development, personal development and fulfilment, and social inclusiveness and democratic understanding and activity. Participation in the Research Higher Degree (RHD) process (by Masters or PhD) represents lifelong learning (Reay 2003). The RHD process has the capacity to satisfy each element of the definition, with an overarching sense of a 'good' or 'positive' experience (Reay 2003, Aspin and Chapman 2000). The authors had considerable anecdotal evidence from women of the key importance of the supervisory relationship as part of the successful individual student journey. The literature suggests positive supervisory practices have positive outcomes for students (Cryer 1996; Delamont, Atkinson & Parry 1997; Phillips & Pugh 2005; Wisker 2005). What if the process is a negative one? Does a negative supervisory experience produce a negative outcome and a barrier to lifelong learning? What strategies for educational success might students need to adopt in these circumstances?

Numerous texts have examined the effective practices of supervisors and students. One that seeks to promote fundamental good practice between student and supervisor is James and Baldwin's "Eleven Practices of Effective Postgraduate Supervisors" (1999). While each practice is discrete (#1 right partnership, #2 careful assessment of needs, #3 agreed expectations, #4 support conceptual structure and research plan, #5 encourage writing early and often, #6 regular contact and feedback, #7 involve in life of department, #8 inspire and motivate, #9 assist in crises, #10 assist in future career, #11 monitor final production), they

collectively mirror the research journey - through foundations, momentum and final stages.

Little formal work in respect of Australian women (Moses 1990; Leonard 2002) has been done to enhance a better understanding of the 'down side' or negative experiences of supervision and what that means for women who embark on the student journey, and for their commitment to lifelong learning and creating new futures. The authors saw the clarity and accessibility of the "Eleven Practices" framework as a valuable starting point for pilot research examining the effect of negative supervisory experiences on the research and personal lives of RHD women students.

THE RESEARCH

We posed the following questions: How are women's lives/research affected by the need to develop strategies to negotiate problematic supervisory situations? When unable to access formal avenues of redress, how do the women journey within/outside the bounds of the supervision process? The diverse group of participating women were asked to reflect on James and Baldwin's eleven practices and to identify up to three they believed were absent or poorly managed in their individual experiences. The authors drew on the force of the women's narratives (Burt and Code 1995; Oakley 2000) to highlight difficulties and to privilege coping strategies the women adopted.

The authors called for expressions of interest to participate in the pilot project through the Central Queensland University Women in Research email list (which is a wide-ranging list reaching women from a variety of different institutions). The women volunteered to participate by completing a simple one-page document that indicated which of the eleven practices they saw as most problematic. The authors then held confidential, semi-structured, interviews (minimum one hour) with five women who had indicated a willingness to participate in the interview phase. All of the women were

studying/had studied at quite different institutions. The confidentiality of the interview data was protected by giving each participant a code name.

Table 1 summarises some key features associated with the participating women. Clearly, students and supervisors would display a range of

attributes that could affect the nature of the supervisory experience. It is beyond the scope of this paper to explore those attributes, but issues around the family responsibilities of students and the sex of the supervisors is included as some participants emphasised these issues as relevant to their RHD journeys.

Participant	Degree	Enrolment*	Family responsibility	Supervisor
Toni	PhD	External	yes	Male
Jude	PhD	External	yes	male (later female)
Kim	PhD	Internal**	yes	male (various)
Jackie	Masters	External	yes	Male
Sam	PhD	external (later stages internal)	yes	male (later stages female)

*External students were studying 'off-campus'/at a distance and part-time: Internal students were 'on-campus' and full-time.

**Kim recounted that her only ongoing consistent support and feedback came from an overseas 'supervisor' so that for most of her candidature she was effectively an 'external' student.

Table 1. Features of Supervision Situation

THE PARTICIPANTS' RESPONSES

Each woman's progress was a rollercoaster that required each individual to negotiate various hurdles, to cross boundaries and overstep rules in order to continue the learning journey. Participants were quick to point out that any

success was not their own, but a combined effort with family and friends. Table 2 sets out where the most problematic practices fell in terms of James and Baldwin's three main stages of the RHD journey –

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11
	Foundations				Momentum					Final Stages	
Toni		✓					✓		✓		
Jude		✓		✓		✓					
Kim							✓		✓	✓	
Jackie	✓					✓					
Sam		✓	✓			✓					

Table 2. Nominated Negative Supervision Practices

THE FOUNDATIONS PHASE

All the women self-identified (directly on the survey instrument and/or in their subsequent interview) negative experiences within the foundations phase of the RHD process. The women found the foundations were very shaky, with no apparent ground rules to ease their way. As Patterson, Barnett and Culling (2007) highlight, there was a conflict between the 'idealised 'turbo-student' (the individual 'who

can succeed in the shortest possible time with few demands on institutional resources)' and the students they really were.

In terms of the supervisory relationship, Jackie stood out as having a major input into who was to act as her supervisor, but this was to prove of no great assistance in cementing a partnership that was right for the project (Practice #1) -

... he was one of the few people who had the expertise ... so to a certain extent I didn't have a lot of choice ... When I approached him he tried very hard to discourage me ... to do with his own uncertainties about his own capabilities ... I pointed out to him that I didn't have a lot of options ... he was a live body as opposed to a no-body. And so, on that basis, he agreed ...

Jackie went on to describe a supervisor who never initiated contact, who never suggested her original topic was too broad (but 'sagely' agreed when Jackie expressed this concern some 12 months later), and who failed to provide her with, or direct her to, any administrative information about enrolment difficulties. Like the other women participants, she was, however, quite particular about using the idea of 'blame' and 'sharing the blame' for the difficulties she encountered.

While Sam did not nominate Practice #1 as one of her three most difficult areas of experience, she nevertheless described the 'selection' of her supervisor in this way –

I wanted to do a Masters ... and the [then] Head of School said: you've already got one Masters, why don't you do a PhD? So I enrolled ... not something I had intended to do ... And then he left and he passed me on to somebody else. And he left and he passed me on to [someone] who wasn't even in my area ...

Being a full time internal student did not seem to offer any protection from the fundamental problem of supervisor-student 'fit', as Kim commented –

I had a number of supervisors over a period of time and they chopped and changed and they would leave ... There was clearly nobody that the research office believed would be a suitable supervisor either. So what happened was that the ... acting Dean ... was appointed to sort of oversee the last phase ...

Toni described senior staff at her then institution informing her that she was selected to work with an unknown person from another institution. Toni was struggling with a heavy professional workload, a young family, the realities of external distance education and an associated heavy travel burden. Her priorities needed to be her family and her paid work, but as she said in relation to her allocated supervisor, 'I don't think he had a whole lot of sympathy for me with the other two areas of my life.'

Jude described an ongoing supervision quagmire –

My first supervisor went overseas at the end of my first year – it was a dreadful experience – that man would not contact me at all and I got to think: oh, it's me. But it was just abominable and he became quite aggressive and abusive before he left ...

She then detailed a complete lack of contact from her new supervisor, and gave this example of her frustration –

I actually wrote in my report [to the research office] that I wasn't satisfied with the amount of contact ... I had tried to phone her ... over a period of weeks ... and it took phoning her home number - which I am loath to do - to discover she was overseas and had been for a couple of months ... I think one of the responsibilities of a supervisor is to let their PhD students know that they are going to be out of the country. I don't want to know when they are going away for a blasted weekend, but I would have liked to have known that [she was overseas] ... I would like to think ... she would have enough respect for our relationship to actually let me know ...

If this was the beginning, it was not likely that these women would report an experience where supervisors took time to get to know them and carefully assess their needs. Three of the women specifically nominated Practice #2 as one that was especially problematic. For Toni, communication on that level was summed up as, 'there wasn't a whole lot.' But again, in common with the other women, she was reticent to ascribe the supervision difficulties wholly to her supervisor –

I'm reluctant to be honest to put too much of the blame on him. I don't think I'm a particularly open person ... I'm not an easy person to get to know in all fairness. So he may well have tried. ... But I think particularly in the last 12 months of this three year debacle ... I wasn't in a particularly good state of mind ...

Jude found herself grappling with competing academic and personal needs amid major changes in her professional and private life. For Sam working full time, managing a family, and studying part time had been a way of life for many years. She also expressed frustration at the apparent lack of interest by, or inability of, her supervisor to know and understand her needs – ... it did make it more difficult. It made it more frustrating ... especially because I thought the supervisor, obviously being an academic, knew the importance of ... having a PhD. And I thought if he was busy, that's fine, I don't have a problem with that, but he should have said ... let me know ...

For her there was no mutual 'getting to know you' regime in place, and certainly no careful assessment of her needs as a RHD student and in such a context, Sam acknowledged that it would be impossible to establish reasonable and agreed expectations as proposed by Practice #3.

For Jude, a key source of her dissatisfaction and difficulties, centred on Practice #4 - the absence of any support and assistance to establish a strong conceptual structure and research plan –

And what I got from my principal supervisor in terms of support, you know, like a framework, a scaffold that might have helped me manage my time has been less than what I would have considered um ... helpful. It was almost ... well, it was literally ... let's divide the year into months – so she drew this little table on her computer and we put the months down – and then she asked me what I wanted to do each month. That was the support I got. For Christ's sake, I don't know! Help!

THE MOMENTUM PHASE

Somewhat surprisingly, all research participants stayed with their studies into what James and Baldwin (1999) describe as the momentum phase. In this phase, all women identified scenarios where they felt they received inadequate, or no, input or support. While none of the women specifically mentioned Practice #5 – encouragement to write early and often – that was essentially implicit in that three of them reported problems with Practice #6 in the lack of regular contact and feedback. For two students, the failure of supervisors to involve them in the life of their academic departments (Practice #7) was also of real concern. For three of these women, it was their experience of limited, sometimes no, contact from their supervisors and a lack of feedback that proved to be an almost overwhelming disincentive to continue.

None of the women actually specified problems with Practice #8 where supervisors actively worked to inspire and motivate students.

However, it is clear from their stories that the sorts of supervision they each received were not likely to create an atmosphere where they felt valued and encouraged. Kim recounted occasions of her attendance at conferences and seminars – both in Australia and overseas –

And I was able to go to a number of postgraduate forums and workshops ... sponsored by external groups ... You know, you sort of live in hope that things will get better – and they sort of didn't ... But I did get support nationally ... which I feel also

helped me make some links ... I went [overseas] with support external to [my] institution ... But it was also inspiring to think: yeah, what I'm doing is worthy. And even if the people around me don't see what I'm doing as worthy ... other broader people believe what I'm doing is important.

Jude recounted an incident that potentially robbed her of a valuable motivational opportunity –

I found out that there [had been an overseas] guest speaker [who] happens to be the primary academic whose work I've been looking at for a number of years ... She's the main one [in my special field] ... My supervisor did not contact me to let me know this particular academic was actually on campus ... I would have thought my supervisor knowing that this particular academic has been the focus of what I've written ... she would have let me know ...

Similarly, all the women reported (with two of them specifically nominating) problems to a greater or lesser degree with supervisory Practice #9 – assistance with academic and/or personal crises. Toni specifically referred to her supervisor's lack of sympathy with other areas of her life. Jude said her supervisor was aware of personal issues, but was not confident whether the resulting supervisory silence was yet another indicator of her supervisor's non-involvement. Kim described an isolated existence in the middle of a busy department while she struggled with issues of family illness and a range of outside pressures. Jackie's life underwent upheavals of 'earthquake' proportions. Sam tried to keep her academic pressures and frustrations separate from her family life. Whilst these less than satisfactory experiences were de-motivating, the participants found that the support from others outside of the supervisory relationship was invaluable to their success. Whilst such support was important throughout the research journey the importance of support from outsiders was no more evident than in the final stages phase.

THE FINAL STAGES PHASE

Jude actively sought what she described as an 'external supervisor' to supervise her project. This 'external supervisor' was a lecturer at another university who she met coincidentally. Jude's comment of her 'external supervisor' was, 'and she's interested – she shows interest in my work ... whereas I don't find any interest [in my work] from [my primary supervisor] at all'.

Kim's immediate family took drastic action as a form of encouragement –

... when people would ring up [they] would say I wasn't there. I could hear [them] on the phone. [They] monitored who was ringing and [they'd] say "I don't know where she's gone, she's gone away to write her thesis, she'll contact you when she can". My partner here would say: "she's gone away for a while she won't be back".

Kim, in order to finalise her thesis 'escaped' to her family in a different town, one relative ruling that other members of the family 'were limited to visiting me once a week. Because it was made clear that I was there to do my work.'

The benefits of having a strong support basis were evident for Jackie who did not have any extended family to assist with the care of her child to give her time to attend her university campus. She lamented that it took a long period of time for her to build up support networks, inside and outside the institution, that were of assistance to both her studies and life outside study. For Toni the burden of the RHD journey was too much and she failed to finish her study. The experience was such that Toni indicated that she will not pursue future doctoral studies.

THE IMPORTANCE OF OUTSIDE SUPPORT

At the time of the pilot study four of the five women had completed their studies. Despite their negative supervisory experiences none of the women were passive victims. As a key strategy they displayed great persistence and courage in what was often a totally alien and isolating situation. This was particularly the case given that the institutional strategies for resolving issues with their supervisors were often lacking.

For Jude the institutional complaint system was of limited benefit. She completed her annual report stating she was unhappy with the amount of supervisory contact. The supervisor responded positively in the report and committed to a more regular contact regime. However, Jude found that in reality nothing changed. There was no evidence that the institution had in any way followed up or monitored her concerns. Sam also decided to submit a written expression of concern to her institution's office of research. She never received a response. She then made the momentous decision to go it alone and completed a 50,000 word thesis. Her final, and perhaps most powerful strategy, was to change institutions and connect with her final supervisor in what had been a long and arduous journey –

My new supervisor [looked at my thesis] and said: ... we're going to completely start from scratch – And I was devastated because that was like eight years work – so I threw away

50,000 words and wrote a PhD in 12 months ...

The failure of some strategies speaks to the institutional failures that ignored (often formal) calls for help, that failed to provide any preliminary preparation and advice about the RHD process, and that apparently failed to adequately train, monitor and audit the individual supervisors working within the various organisations (Manathunga 2005). The strategies that were successful were those where women drew on families and other women and colleagues for support. These proved to be the powerful guides and confidantes that sustained and encouraged and offered all manner of practical assistance.

CONCLUSION

The research was a pilot study only. The women themselves echoed the findings of the relevant literature that effective supervisory practices are crucial in the foundations stage and in maintaining the momentum of research work. For these women inadequate support in the foundation and momentum stages of their journeys led to the adoption of some quite stoic and innovative strategies to ensure final educational/career success. The determination and commitment to their lifelong learning journey led them to find the necessary supports, indeed impetus, outside the formal supervisory relationship. These women shared stories that exemplified personal development and fulfilment and also highlighted economic and social accomplishment – the triad (Aspin and Chapman 2000) identified initially in this paper as vital to lifelong learning.

What emerged as common to the five women were survival strategies that took them outside the boundaries of supervisory relationships. With a little help from friends, supports and/or mentors (wherever the women found them) the responses of these women 'interrupted dominant academic discourses that construct doctoral candidature as an individual endeavour and interrupted the dominant subject positions available ... as 'individual' ... students, with 'individual' supervisors ...' (Patterson, Barnett and Culling (2007)). For all the women, the further strategy in participating in the pilot research has been to again step outside the often isolated and isolating world of supervision and to speak out as a way to encourage and support others who may face similar difficulty, discouragement and disincentive in the RHD lifelong learning process.

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ONLINE LEARNING COMMUNITIES: ADOPTING A LEARNER-CENTRED PERSPECTIVE TO FRAME LIFELONG LEARNING FUTURES

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ABSTRACT

The association between perceptions of learning context and approaches to learning is repeatedly emphasised within research literature. Here, the concept of virtual learning communities is analysed from the learner's perspective. Learners identify pressures and recognise personal and professional applications for knowledge collaboratively constructed within the context of an online course.

KEYWORDS

Online learning communities - learner perspectives - lifelong learning

INTRODUCTION

Researchers and educators are becoming increasingly aware of the potential of learning communities for maximising learning and there is a perception that collaborative engagement within community contexts will facilitate successful achievement of learning objectives (Palloff & Pratt, 2005). The association between perceptions of learning context and approaches to learning has been repeatedly identified and emphasised as significant within research literature (Meyer & Muller, 1990). However, despite the effort expended to develop and implement computer mediated learning environments and online courses, they often fail to create effective settings for learning and knowledge construction (Oliver & Herrington, 2003). Within this paper, discussion of the pressures and possibilities of online learning communities related to lifelong learning are explored from the learner's perspective. Vygotsky's theory of development (Vygotsky, 1978) serves as a conceptual framework for the study and discussion of the findings are structured around four dimensions of community identified by Rovai (2002) as spirit, trust, interaction and goals and expectations.

Literature Review

The concept of "learning communities" is to the fore of educational and organisational literature and discussion (Kilpatrick, Barrett, & Jones, 2003) and, while there is a belief that the development of learning communities should be considered a primary goal, there is little empirical evidence to guide instructors in the development process (Palloff & Pratt, 1999). Part of the problem may lie in the fact that there is a lack of consensus about what constitutes a learning community. Consequently, definitions continue to evolve in response to the diverse needs of learners and the communities in which

they learn (Kilpatrick *et al.*, 2003). Current definitional themes (Rovai, 2002), suggest that a learning community may be described as a group of individuals who share a common purpose or goal, collaborate to address learning needs and draw from individual and shared experiences in order to construct knowledge and enhance the individual and collective potential of community members. From this perspective an online course could be conceived as a 'virtual' learning community.

The community construct is widely accepted as a sense rather than a tangible entity (Wiesenfeld, 1996) and, although it has been argued that physical separation reduces the sense of community and gives rise to feelings of disconnection, in today's society the concept is perceived to be more relational than geographical (Brook & Oliver, 2003). Hill (1996) maintains that, based on this perspective, if we are to come to an understanding of sense of community we need to study it in a variety of contexts. Although there is theoretical debate about the role that communities play in the learning process, there is little doubt as to their value to learning (Hung, Tan, & Koh, 2006) as strong feelings of community are thought to increase persistence in courses, the flow of information among learners, the availability of support and commitment to group goals (Wellman, 1999). Kilpatrick *et al.* (2003) suggest that the core business of learning communities is to share knowledge through collaboration, a view supported by Palloff and Pratt (2005), who consider the two to be interdependent (while collaborative activity can assist the development of a sense of community, a sense of community is needed in order for collaboration to occur).

THEORETICAL FRAMEWORK

Much of the focus on learning communities springs from socio-cultural research (Wertsch, 1995). Within this paper Vygotsky's theory of development is used as a conceptual lens to view learning in online learning communities. From a social constructivist perspective learning is a social and situated process. The paradigm is

based on the principle that individuals and communities construct knowledge based on their experience and are constantly refining knowledge of the world by interacting in social and cultural contexts (Kanuka & Anderson, 1999). Participants actively construct meaning through language; thus learners learn by engaging in dialogue and the thinking of individuals is influenced by the group they are working in. Vygotsky's theory is appropriate to the themes of learning communities and lifelong learning as it is based on three interrelated precepts: that human activities take place in cultural contexts, are mediated by language and other symbol systems and can be best understood when investigated over their historical development. Palloff and Pratt (2005) are of the view that a strong sense of community can assist groups to move more effectively through the various phases of their development. The underlying assumption within current literature and the premise of the theoretical framework is that learning is a dynamic, interdependent, intrapersonal and interpersonal process. Learning can be viewed as a continuum, based on previous experience and shared knowledge and each interaction and learning event has the potential to contribute to and potentially to extend the learner's knowledge and understanding. Thus learning is a continuous lifelong activity.

METHOD

This paper reports the findings of one aspect of a larger research study, designed to understand how learners interact and construct knowledge in online environments, specifically, from large group, small group and individual perspectives. Here the focus of inquiry is upon how individual learners conceptualise interaction and knowledge construction within the context of an online course.

Research participants

The virtual community comprised students engaged in an online course offered to undergraduates within a regional university in Australia. The course was core within the Bachelor of Health Promotion and an elective for several different programs offered by the university. Ethical clearance was granted by the university's human ethics committee to investigate learner interaction and knowledge construction in online learning environments. 21 students completed the course and were invited to participate; one learner chose not to participate. Each participant is identified by a pseudonym.

Procedure

Electronic transcripts of responses submitted by learners to the class discussion board, during week three and week eight of the course, were purposefully selected. The relevance of responses during these weeks relates to the nature of the discussions which revolved around the development of online relationships and student perceptions of online learning groups. The content of transcripts were inductively categorized and thematically coded, data were managed with the assistance of qualitative software (QSR NVivo, 2006).

RESULTS

From a Vygotskian perspective, the online course represents a semiotic mechanism for learning, as student interaction and learning take place in a text based, computer mediated environment. The mediated nature of the interactions presents the students with a series of challenges and opportunities in respect of how they interact and how they construct knowledge within the course. Based on learner perceptions, the results and discussion of this study are structured around four dimensions of community identified by Rovai (2002) as spirit, trust, interaction and goals and expectations; the concept of mediation, from the conceptual framework, is also incorporated.

Pressures

Emily: *"I have found working in a group in an online environment very challenging. I love the social aspect of having a group with common goals, but find communication online to be a little frustrating and sometimes hard to understand. Miscommunication happens so easily, whether due to spelling mistakes, the inability to place emphasis on specific words to enhance understanding, or the inability to use nonverbal behavior to communicate meaning such as a joking comment. The task of making a simple decision such as organizing a time to chat can become a long drawn-out process, which can be frustrating as I like to do things quickly. Groups take time to deliberate about alternative courses of action. It takes a substantial time for each person to describe ideas, clarify misunderstandings and respond to questions or criticisms".*

Jane: *"Miscommunications occur frequently but that is all part of the learning process. Trying to work out ways to communicate effectively, online, is a task on*

its own[,] let alone the work we actually have to do for this course”.

Fiona: “...this online course *FORCES* students to contribute, participate and voice their opinions and for that reason I think it's very good”.

Jenny: “When my husband is online with work or his course he doesn't hear me and when I speak to the kids they also are completely detached from reality. It is more of a detachment than if they were just reading. Now I have started my course my family are complaining about me being the same way. We have actually limited our children to half an hour a day on computer even for online study as we feel the computer is interfering with our family connectedness”.

Possibilities

Morgan: “I find that no matter what sort of learning you participate in, you will only get out of it, what you put in. The more effort you exert the more beneficial the outcomes and learning experience should be”.

Community spirit: trust, unity and support

Nari: “I think the fact that we are all on common ground with studying similar courses and having similar career goals may enhance our ability to trust those in our class, and effectively self-disclose information”.

Belinda: “I am enjoying the OLG [online learning group] more-so with each passing week, due to the support of my fellow group members and the sense of unity that's evolving over time.”

Rena: “I also feel connected with others and assured that help is available as everyone is so quick to respond in answering queries or problems on the discussion board”.

Sense of place: safe but surreal!

Fiona: “I think it's better to make a few mistakes and stumble a bit in this forgiving forum than wait until we're out in the professional world where stumbling and mistakes might not be so readily tolerated”.

Jenny: “I have also found myself sitting around in pj's [pyjamas] when there is a lot of work to get done. The other day my husband rang from work and I was really absorbed in an assignment on the computer. He mentioned the time which was midday[.] I thought it was only 10.30 as the stopped study clock indicated. It was cool

and overcast and not noticing the stopped clock and being on the computer I felt like I was in a time warp”.

Mediated interaction: power, voice and understanding

Simon: “With this setup each person can say what they feel and think without being interrupted whi[le] some face to face groups operate with a centralized pattern of power that privileges only one or two members of the group/class”.

Nari: “I find that meeting online allows me to express my feelings more openly. I don't feel threatened by others opinions of me, as they cannot see my lack of confidence in my kinesics (as they would in face to face meetings) and I cannot see their non-verbal feedback to my comments, whether they agree or disagree or think [I] sound stupid. When I associate with people face to face, I often feel that my comments make me sound unintelligent, and I often find people talking over the top of me, which really disconfirms and angers me”.

Kirin: “When communicating online I can assert myself more, and I have time to think about my response and not sound like a goof, if I say something stupid because I haven't thought about it”.

Alaine: “Although at first I was skeptical about how well an online group would work, I was pleasantly surprised to find that overall our small group communicated well and have accomplished set tasks effectively. We have all learned from each other because through interacting we have had the opportunity to expand the concepts within the theory. We have done this by offering examples that we think relate these theories back to communication we have experienced. Our group then uses our collaboration sessions to discuss this further[,] giving even more clarity and helping each other to grasp the concepts”.

Sustainable outcomes

Emily: “Constructive group communication requires that members use effective verbal and nonverbal communication, check perceptions with each other, listen mindfully, build good climates and adapt communication to each other and various group goals and situations (Wood 2004). While some of these are impossible via the online forum (such as the nonverbal behavior), and others need to be adapted (such as reading mindfully rather than listening mindfully), these are all important

communication skills that, if used, can enhance not only group work, but [also] every relationship in a person[']s life.”.

Morgan: “...online communication plays a large part in my life, both professionally and socially, and I do believe it has many benefits, in bringing people closer together, especially when distance may separate them. This course is an example of many people, from around Australia[,] communicating even though a great distance separates us physically. How truly fantastic is that[?] We don't even have to leave our homes to study and advance in the world of education...”

Fiona: “The fact that this course is based on group work is entirely understandable given that in the workforce operating in groups (and teams) is commonplace; and the major requirement is good communication skills, not only in groups but [also] in one-on-one relationships. The more practice we have and the more prepared we are for it, the more successful we'll be. Of course the spill over and application of these skills into our personal lives can only benefit us”.

DISCUSSION

Community spirit and sense of place

There is continuing concern that computer mediated interaction may not be a sufficiently rich mode of communication to sustain a sense of community and engender trust relations (Haythornthwaite & Aviv, 2005). While collaborative learning does not require long term interaction to be useful and effective, building trust in an online community that promotes collaboration does (Haythornthwaite & Aviv, 2005). How much time is required to build trust and develop a sense of community? Within this course participants developed trusting relationships and perceived a sense of community within a relatively short period of time, as between weeks three and eight of the twelve week course learners identified ‘unity’ within groups and a sense of belonging and safety in their learning environment, despite the fact that the environment did at times feel surreal. Thus it was possible for learners to develop a sense of community during an online course within an academic term.

Mediated interaction: trust, voice and understanding

According to Sonn, Bishop and Drew (1999), the experience within a community is context specific. Within this course, learners raised concerns associated with the development of

trust, owing primarily to the absence of visual, non-verbal cues and the fact that their interaction was mediated by text. Despite initial misgivings learners did overcome this barrier and adapted by posting photos and using electronic text, textual emphasis and emoticons. Of particular interest to the structure and design of future learning contexts is the fact that students perceived this online environment as a safe and supportive forum for participation and self expression.

Goals and expectations

In today's society computer-mediated communication is commonplace and an understanding of how to work in virtual teams is becoming a fundamental competence in many organisations (Palloff & Pratt, 2005). Although learners identified pressures associated with course workload and the time required for interaction and collaboration, this pressure was offset as learners acknowledged that their time was being well spent. Overall learners perceived the process as worthwhile, foreseeing wider personal and professional applications for their knowledge, skill and confidence.

CONCLUSION

Online interaction and collaboration emulate future workforce practices. Thus the knowledge and skills developed by learners, while collaborating as members of an online learning community, have the potential to prepare participants for work. The findings of this study suggest that despite pressures associated with computer mediated communication, online interaction can engender a sense of community, within a twelve week academic term. Within this learning community the online environment was perceived as both safe and supportive, promoting participation and confidence to communicate. Learners also acknowledged future personal and professional applications for the knowledge and skills they had developed during the course. With lifelong learning as the core focus it would appear that sustainable, learning outcomes are achievable from ‘virtual’ learning communities.

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REFLECTING ON RESEARCH PRACTICE: A RETROSPECTIVE MEANS OF FRAMING FUTURE LEARNING

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ABSTRACT

Here, the author reflects on a social network analysis (SNA) conducted as part of an investigation of learner interaction and knowledge construction in online environments. Further methodological and educational applications of SNA are identified, with the potential to enhance inductive research design and future educational practice within online discussions.

KEYWORDS

Learner interaction – social network analysis – inductive research design

INTRODUCTION

If research and practical experience are to come together in some significant mutually fruitful relationship then educators must critically examine how research can contribute directly to the problems of teaching. (Nuthall, 2004, p. 274)

Online learning environments present an educational domain unique in their potential for interaction, participation and collaboration (Kumpulainen & Mutanen, 2000) and universities are increasingly adopting computer mediated environments for teaching and learning purposes. The question of how learners interact in computer supported, group based learning has received increasing research attention (Strijbos, Martens, & Jochems, 2004). Yet we remain remarkably ignorant about the dynamics and processes of group interaction and how these relate to student learning (Kumpulainen & Mutanen, 1999). As educators, if we are to promote learning through interaction in online courses we must be able to identify and understand how learners interact within online discussions. Within this paper the author reflects on the preliminary findings of SNA, conducted as part of a larger research study investigating learner interaction and knowledge construction in online environments. While distinctions have been drawn between reflection on and in action (Schon, 1983), the focus within this paper is reflection on research practice, which involves retrospective reflection on past practice. The purpose is to elucidate potential applications of educational research in teaching to enhance and frame future learning.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Views of learning have changed in ways that have affected educational research and practice.

Current perspectives emphasise the social and situated nature of learning and there is renewed interest in social constructivist theories. Within this paradigm learning is situated in but not limited to social interaction and involves the transmission, construction, transaction and transformation of knowledge in a continuing and complex interplay (John-Steiner & Mahn 1996). Research literature regarding the importance of interaction in education, especially in web-based distance learning, is extensive (Picciano, 2002). Although interaction is considered the key to the co-construction of knowledge and cognitive change, learner contributions, within online discussions, may lack interactivity even when students are encouraged to respond to each other (Davis & Rouzie, 2002). This is thought to be due to the nature of the online learning environment, which is computer mediated, text-based and time dependent (Gunawardena *et al.*, 2001). It is also argued that interaction and learning may not occur if the social structure of the course permits passive compliance. Proponents of this view emphasise that two-way interaction is not an inherent part of technology and maintain that the results of interaction are tied to instructional design (Chou, 2002). Similarly, if interaction is too interactive it may overwhelm the capabilities of some learners which may also be detrimental to the construction of knowledge (Levin, 2005). Despite the number of studies examining the concept of interaction, there is a lack of definitional consensus (Beuchot & Bullen, 2005); confusion arises because the term “interaction” is used interchangeably with “interactivity”. Su, Bonk, Magjuka, Lui and Lee (2005) differentiate between the two, suggesting that, while interaction is process orientated and focused on dynamic actions, interactivity is feature orientated and emphasises system characteristics or the degree of interaction. Thus interactivity could be interpreted as the level of user participation. Indeed, Henri (1992) identifies interaction and participation as two separate dimensions within the learning process.

Vygotsky conceptualised development as the transformation of socially shared activities into internalised processes and believed that by internalising the effects of working with others learners acquire useful strategies and crucial knowledge (John-Steiner & Mahn, 1996) which may be applied in future learning situations. The underlying assumption within current literature and the premise of Vygotsky's theoretical framework, which underpins this study, is that learning is a dynamic, interdependent, intrapersonal and interpersonal process. Consequently each interaction and learning event has the potential to contribute towards and potentially extend the learner's knowledge and understanding and the outcomes (knowledge, understanding and skill) become tools to be applied in multiple and diverse situations. Thus learning, which is based on previous experience and shared knowledge, may be viewed as a continuum and a continuous, lifelong activity.

METHODOLOGY

The purpose of this study was to identify and understand how learners interact within a large asynchronous discussion group. A "social network" is defined as a group of collaborating entities that are related to one another; each participant is called an actor and depicted as a node within a graph. Social network analysis (SNA) is a method of mapping and measuring relationships and flows between people and groups; it provides a visual and mathematical analysis based on the way actors are connected, in order to identify underlying patterns in interactions (Scott, 2000; Wasserman & Faust,

1994). Relations between actors are illustrated as lines or links between corresponding nodes, which may be directional or non-directional (Aviv, Erlich, Ravid, & Geva, 2003).

Social networks are generally single mode and describe ties between pairs of actors; affiliated networks have two modes and consist of a set of actors and a set of events (Wasserman & Faust, 1994). The rationale for studying affiliated networks is congruent with the principles of the theoretical framework as both acknowledge the interdependence between individuals and their social connections. Actors in affiliated networks are brought together through their joint participation in "social events". In this study the actors are learners engaged in online activities which constitute educational events.

Participants and procedure

Participants were enrolled in an undergraduate, online, health communications course at a regional university in Australia. The course, which was core within the Bachelor of Health Promotion degree, was an elective in several different programs offered by the university. Ethical clearance was granted by the university's human ethics committee. 21 students completed the course and were invited to participate in the study; one learner did not participate. Data were organised into 12 networks, each reflecting one academic week within the course. Nodes were created for each learner, the course coordinator and activities within each network (see Table 1). InFlow (Krebs, 2005), a computer software program was used to illustrate and analyse the affiliated networks within the course.

Networks	Wk 1	Wk 2	Wk 3	Wk 4	W 5	W 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12
Drawn nodes	26	25	23	24	24	24	24	22	24	24	26	26
Active participants	19	16	18	18	19	17	16	19	17	18	18	16
Link strength	1	1	1	1	1	1	1	1	1	1	1	1
Link count	43	35	32	51	63	46	37	52	45	36	54	47
Link strength	2	2	2	2	2	2	2	2	2	2	2	2
Link count	5	8	5	3	10	27	11	7	7	7	6	7
Link strength	3	3		3	3	3	3	3	3	3	3	3
Link count	1	1		1	3	6	2	2	1	3	1	2
Link strength		4		4		4	4				4	
Link count		1		2		1	1				1	
Potential links	552	380	380	420	462	380	342	380	380	420	506	420
Actual links	49	45	37	57	76	80	51	61	53	46	62	56
Density	9%	12%	10%	14%	16%	21%	15%	16%	14%	11%	12%	13%

Table 1 Overview of participant interaction and measures of density throughout the 12 week term
N.B.

*Nodes = active participants, non-active participants and activities

* Link strength = number of messages from one participant to another or from one participant in response to activity (value 1-4)

* Link count = total number of actual links (includes symmetrical and asymmetrical posts)

Prominence	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12
Prestige (in)	C-Co-ord	C-Co-ord	Jenny	Fiona	Jenny	Fiona Jenny	Jenny	Fiona	Rena	Belinda	Ruth	Fiona
Centrality (out)	Belinda, Fiona, Kelsie	Alaine	Alaine	Emily	Jenny	Emily	Fiona Jenny	Jenny	Jane	Jane	Fiona	Jenny

Table 2 The most prominent participants from week 1 to week 12

RESULTS

The links between nodes in this study are directional. Valued relations between nodes can measure the strength, intensity or frequency of the connection among actors and between actors and events. In Table 1 link strength relates to the number of messages from one learner to another or from one learner in response to the weekly activity. Throughout the course link strength within the large group ranged from 1-4. Analysis indicates that the greatest range and levels of learner interaction occurred in weeks 2, 4, 6, 7 and 11.

Density

A graph can have only so many links, the maximum possible being determined by the number of nodes; density is the proportion of possible links that are actually present. The most prolific weeks in terms of density are weeks 5, 6, 7 and 8. From the author's experience, this finding is typical of learner participation during an academic course and consistent with the work of Levin (2005), who has found levels of interaction greatest between one third and one quarter of the way through online discussions.

Prominence

A primary use of graph theory in SNA is the identification of the "most important" or most prominent actors in the social network. Prominent actors are extensively involved in relationships with other actors and are identified through their ties or links. Two types of prominence are measurable: prestige and centrality. In directional relations those with the highest in-degree are prestigious, while those who have the highest out-degree are central. Predictably, the most prestigious nodes each week were learning activities. The most prominent actors, differentiated by prestige and centrality, are identified in Table 2. Prominence in weeks 1, 6 and 7 was shared.

DISCUSSION

The intended function of SNA within this study was illustration of interactions among learners

engaged in online activities. Upon reflection, SNA may also offer a methodological means of identifying and justifying the selection and subsequent analysis of data. Density identifies the most interactive weeks within this course to be 5, 6, 7 and 8. This information is augmented by relational data which indicate that the greatest variation on link strength occurs in weeks 2, 4, 6, 7 and 11. When a historical perspective is sought, the analysis of transcripts from weeks 2, 6 and 11 may offer significant developmental insights about learner interaction during the academic term.

Measures of prominence may also have educational applications. For example, within this course 25% of total marks were awarded for learner participation in online activities. The assessment of participation and interaction was undertaken by the course coordinator using marking criteria and an author list view of messages posted to the discussion. By contrast, measures of prominence, via SNA, may offer a less subjective and more reliable indication of both the level and the influence of learner interaction in online environments. Further, once identified, prominent actors could be allocated to particular online groups to facilitate and or promote learner interaction.

Reflecting on research practice the author has enhanced her understanding of SNA and identified additional methodological applications. SNA may also have pragmatic educational applications as it affords a means of structuring and evaluating learner participation and interaction in online discussions. For this educator, success lies in identifying a means of applying research in teaching practice to frame and potentially enhance future learning.

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ETHICAL CONSIDERATIONS IN PROVIDING DISTANCE EDUCATION IN THE LIGHT OF MASSIFICATION

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ABSTRACT

The massification of higher education has led to a rise in equity related issues in teaching and although institutions have developed policies, few academics have a coherent way of adhering to them. This paper briefly discusses the implications of catering for an increasingly diverse student body and proposes multimodal design as an appropriate response. Case studies are used to support the proposal.

KEYWORDS

distance education – non-traditional learners – learning modalities – massification – metacognition

INTRODUCTION

This paper investigates issues relating to the changing nature of providing higher educational courses via distance education (DE), particularly in the context of the ethics involved in delivering these courses via technology enhanced environments. Over recent years there has been an increasing tendency, due to the advances in learning management system (LMS) technology, to shift the delivery of DE courses from printed to electronic form. However, at the same time there has also been a significant increase in the percentage of non-traditional learners entering universities. Such learners include mature age students, part-time students in full-time or part-time paid employment, students from educationally disadvantaged backgrounds (including prisoners) and students for whom English is a second language. Many of these students are choosing to study by DE (Schuetze & Slowey, 2002). In addition, sociologists and pragmatic educators are increasingly noticing that people are learning to learn in different and/or in non-traditional ways (Oblinger & Oblinger, 2005). This realisation parallels the 'massification' of higher education, the process whereby higher education is transformed from an elite to a mass system with a much larger proportion of the population participating (Scott, 1995).

As a greater diversity of people enter higher education there also comes a greater variety of cognitive, generational, cultural and demographic needs that also need to be considered. Many students now come to university somewhat ill-equipped to face the rigours of study and with little way of knowing how to adjust. The need therefore to cater for this diversity has never been greater; demanding new approaches to learning and teaching (Cameron, Shaw, & Arnott, 2002).

The massification of higher education has also created significant ethical challenges. Indeed there is now a literature on the professionalisation of teaching in higher education (Macfarlane, 2004). It is argued that the traditional view of a university academic as a discipline expert with a strong focus on research is no longer adequate. Although academics might be professional in the sense that they are members of a professional body (e.g. in accounting, engineering, law or medicine) or are discipline experts, they must also be professional in the sense that they are cognisant of obligations to students. Students are clients and professionalism incorporates both mastery of an area of knowledge and skill (the traditional view of the university academic) and service from which the client derives benefit (Jarvis, 1983).

Many universities have equity and ethics policies designed to address some of these issues, but it would seem few academics have a coherent way of adhering to these policies, due either to a lack of time, or simply not being aware of the enormity of the issues (Birch & Gardiner, 2005). At least in the Australian context adoption of technology enhanced learning has been *ad hoc* and limited and does not appear to be a coherent response to the ethical implications of massification (Smith, Ling, & Hill, 2006). In addition there is significant research that would suggest that reliance on the more traditional text-based instructional materials supplied by many institutions may inadvertently disadvantage a significant proportion of their students (St Hill, 2000). In fact, this approach could now be considered an unethical way of approaching today's diverse student body, since it is unprofessional in the sense outlined above.

This paper will briefly discuss the implications of catering for an increasingly diverse student body, proposing that one approach to consider is that of multimodal design. This is done whilst acknowledging that there are still significant issues associated with these non-traditional

students accessing technology enhanced learning materials. This paper will then propose that an ethical response to this is twofold. First, by integrating a range of multimodal learning and teaching strategies courses may be able to cater for a wider diversity of students. Second, by giving students the opportunity to discover their preferred approach to learning they can in turn have more confidence in approaching study. This paper will support this by a very brief report on two key findings from a series of much broader research projects conducted at the University of Southern Queensland (USQ) between 2004 to 2006. These studies found that higher levels of student engagement were possible when course materials were designed to cater for students with a diverse range of approaches to their learning.

Delivery model

The USQ is currently the second largest DE provider in Australia, with over 75% of its students (about 16,000) studying in this mode, and with almost 90 nationalities being represented in its student body. At USQ, as with many other institutions in Australia, DE course materials have traditionally been delivered via static print-based packages. However, advances in technology have afforded an opportunity to transfer much of this material to an online and/or CD-based delivery mode. As with other institutions USQ has responded to reduced government funding over the years by also competing globally and by widening access to new types of students (Bridge, 2006).

To give some type of framework to this widening access USQ has been required to develop a range of policies to address many related to diversity. For example, its policy on learning and teaching states specifically that the learning environment will offer choices in mode of delivery and incorporate a range of learning and teaching strategies to accommodate the diverse needs of its students (USQ, 2006). Further, USQ's Equity in Educational policy states that it is:

"to be proactive in promoting and supporting fair access to higher education opportunities and ensuring that all students have the opportunity to achieve according to their own individual potential." (USQ, 2007)

Of particular note in this policy are the words, 'ensuring that all students have the opportunity to achieve according to their own individual potential.' This is a principled statement that is consistent with the idea of professionalisation of higher education. However, if an institution is to fully embrace this ethic there are a range of issues that decision makers within the institution

need to consider. For example, they would need to question not only what is sound from a pedagogical point of view, but also the effectiveness of systems through which people learn, as well as alternative and supplementary frameworks for learning (Vissar & Suzuki, 2006, p.236).

Based on the above USQ has been developing its strategy for creating course resources based on a hybridised delivery model known as 'Transmodal delivery'. This is seen as the provision of a resource-rich multimodal learning environment, allowing students the opportunity to access their course content in a combination of ways. This approach does not deny the perceived need to also provide access to print-based resources, and these are provided online (or on CD) in the form of PDF files and made available for purchase from the USQ Bookshop. More importantly, the HTML based environment allows for significant multimedia enhancements to be provided in these environments. This strategy in itself does not deal with the equity issue associated with increased diversity within the student body, but it does provide a platform to allow materials to be developed and delivered as part of an ethical response.

Diversity and growing non-traditional student numbers

Non-traditional learners have grown in prominence and are today a significant consideration when designing DE materials. Schuetze and Slowey (2002) argued:

"Non-traditional students in an elite higher education system were, by definition, a minority. With expansion and change in higher education some non-traditional groups have increased in number arguably to a point where they have come to form a 'new majority' in higher education" (p.313).

This demographic change has caused a significant blurring of the traditional boundaries of how learning materials are supplied (Bridge, 2006) and fundamental questions such as "what to teach and how on earth to teach it" have also been asked (Jochems, van Merriënboer, & Koper, 2004). This situation is further highlighted when we consider the issues associated with the learning styles of non-traditional students, as opposed to those who comfortably work within a read/write learning style and have succeeded at higher education in the past (Sarasin, 1999). Barrington (2004) believes this is a major issue as tertiary institutions privilege certain ways of knowing and focus on a narrow view of the intellect that 'does not always allow for socio-cultural

differences' (p.422). This would suggest, as does Askell-Williams and Lawson (2006), that there is a need to 'represent more fully the diversity and complexity of students' cognitive models about learning' (p.139) within modern curricula. This is a particularly important ethical consideration for it is when 'learners are placed in new situations or have to solve new types of problems that their preferred learning style has a significant influence on their experience and their learning' (Sheard & Lynch, 2003, p.255).

Importantly, as these students learn in different ways, so they may also represent knowledge in different ways, and as performance can be related to how they learn, it may be seen that people can learn more effectively when taught by their preferred approach to learning (Koc, 2005). Baird and Fisher (2005) believe that 'the key to a more just approach is to design learning materials with these non-traditional learning styles in mind, creating content that allows students flexibility whilst also embracing the reality of the neomillennial student' (p.10). Non-traditional learners are USQ's 'bread and butter', thus the following section will investigate some of the issues to be considered when allowing for the different approaches students have to their learning.

Different approaches for different learning modalities

Fundamental then to the design of Transmodal courses are the principles of multimodal design in which 'information (is) presented in multiple modes such as visual and auditory' (Chen & Fu, 2003, p.350). This is based on research demonstrating that students prefer to learn in environments that reflect the cognitive style in which they are most comfortable (Hazari, 2004). Multimodal design makes this possible as information can be presented in ways that utilise multiple sensory channels. Chen and Fu (2003) state that, 'multimodal information presentation makes people feel that it is easy to learn and they can maintain attention, which will benefit the learning process and increase the learning performance' (p.359). This is particularly true when utilising additional multimedia in learning and teaching environments to match students' different learning modalities (Ellis, 2004). For example, when the written word fails to fully communicate a concept, a visual representation can often remedy this problem. Figure 1 presents a simple illustration of this concept. Where 'Representation 1' may cater to a couple of learning modalities, it may not cater to others, so by including 'Representation 2' the other learning modalities may be accommodated.

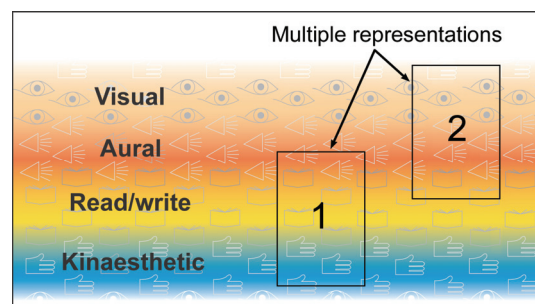


Figure 1. The multiple representation of a concept

Examples of multiple representations may include, using point-form text in conjunction with video or audio, animated diagrams with audio, video presentations, interactive graphs, audio explanations of concepts and still images. Importantly, in these examples the multimedia element presents an additional representation of the information (traditionally in text) in another format. This approach not only caters for a range of different learning styles but it also gives students a choice in how they wish to access the content, and may be considered an ethical response to the needs of non-traditional learners. Jona (2000) asserted that this kind of learner choice represents the paradigm shift that needs to occur in higher education.

Facilitating Metacognition

It has been suggested that when students are aware of their individual strengths and weaknesses as learners they become more motivated to learn (Coffield, Moseley, Hall, & Ecclestone, 2004). The potential of this awareness is that students can then question their long-held behaviours and be taught to monitor their selection and use of a range of strategies to aid their learning (Sadler-Smith, 2001). This strategy has also been shown to increase the confidence and the grades of students by helping them to make the most of the learning opportunities that match their preferred style (Coffield et al., 2004). So, although it has been seen that there is a real need to design learning environments for a range of different learning modalities to aid student cognition, considering issues of students' metacognition is equally necessary. There is therefore, a further aspect that needs to be considered, namely helping individual students become aware of their own preferred approach to learning. Typically this is done by administering to the students some form of learning styles inventory. However, to be effective this should not be seen as a one-off activity, rather it must be part of a holistic approach, one that incorporates a range of support information.

Researching multimodal delivery

The change to a multimodal form of delivery represented a substantial shift in the provision of course at USQ, so it was critical to understand how the students perceived these resources and to find out of how effective the multimedia elements had been. This next section very briefly

Course	Research	N=
ECO2000: Macroeconomics for business and government	S1 – 2004	62
MGT2004: People development	S2 – 2004	108
MKT1001: Introduction to marketing	S1 – 2005	86
MKT2004: Marketing channels	S2 – 2004	31
CMS1000: Communication and scholarship (external only)	S1, 2 & 3 – 2005	188
CMS1000: Communication and scholarship	S1 – 2006	113
Total number of students participating		588

Table 1. Six multimodal courses and when each was researched

reports on two key findings relating to this form of delivery from six broader research projects conducted between 2004 and 2006. A total of 588 students participated in these studies (Table 1). It should be noted that only very limited data can be reported here and only data relating to the use of multimedia enhancements is presented. In the above courses students were asked to indicate the extent to which they agreed or disagreed that the multimedia elements had helped them understand the concepts being represented. Figure 2 shows that between 86% and 64% agreed or strongly agreed with this. It was seen that the students not only found these features helpful to their learning, but in some cases invaluable, as the following comment indicates:

“The advantages are obviously having all those different options available for the different modes of presentation. The explanation of diagrams and stuff like that are invaluable.”

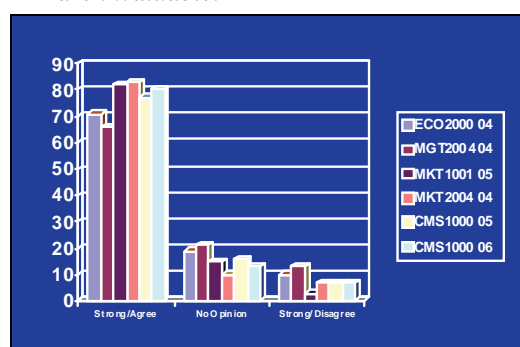


Figure 2. Level of agreement that multimedia features had been helpful.

One feature that generated the most positive comments, from DE students was the use of

audio within the environments, as is highlighted in the following comment:

“... if I had trouble understanding something from the hard copy I’d go and find other means of understanding...mainly the audio...you can interpret things differently when you read it. When you get somebody explaining it to you through the audio it’s like, ‘oh that’s what they mean by it’. You can definitely read things and they can be interpreted in a different way.”

The audio feature also had the added benefit of helping external students feel less isolated. One distance student remarked of the multimedia features:

“I found them extremely helpful - made me feel more a part of the class as well”.

In the comments above lies the essence of what is seen as the advantage of supplying core information in more than one way. That is, the use of multiple representations can aid in making concepts clearer and in so doing enhances the opportunity for learning from the materials, or in the words of one student: *“the more options the better off you are at learning what you are trying to learn”.*

Another form of multimedia enhancement used in the learning environments was using audio enhanced PowerPoint presentations. When students were asked to respond to the statement, *‘The multimedia introductions (using PowerPoint and audio) used for each module; assessment and course overview really helped my understanding of the course content’*, between 80% and 66% agreed this had been the case (Figure 3). Again this weight of positive sentiment is confirmed by student comments, for example, *“Yes. Presenting material in a variety*

of formats and ways facilitates and stimulated my learning”.

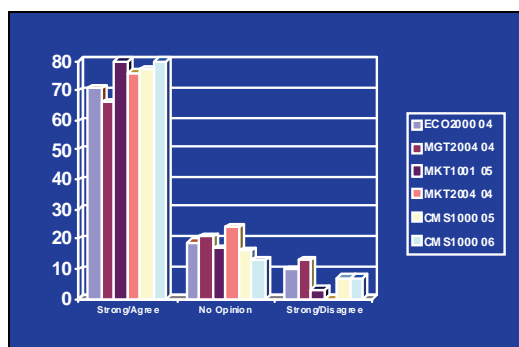


Figure 3. Level of agreement that multimedia introductions had been helpful.

There was an unmistakably strong endorsement of the multimedia enhancements in these courses, though they clearly did not suit everyone. However, the use of multiple representations was seen to help the students' understanding of the course concepts and helped break down some of the perceived barriers to their study. Overall it can be seen that there was a strong acceptance of the use of the multimodal learning environments. In addition, students indicated that they preferred the CD-based version of the materials to the printed learning resources because they could easily access or buy a printed version if they chose. It was seen that the sentiments expressed by the majority of students relating to these environments were highly complementary. Based on the findings of the above studies, the major recommendation would be to cater for a range of different learning modalities by offering alternative representations of key concepts within courses.

CONCLUSION

This paper has demonstrated that there are ethical reasons and pragmatic advantages for students in providing course resources designed to suit a range of different learning modalities and backgrounds. The findings from these research projects investigating multimodal delivery indicate that students had positive attitudes toward, and value, these course materials along with the additional multimedia components. This was primarily achieved by providing a more complete representation of the information being presented, thereby increasing the opportunity of students to engage with their learning materials. Importantly, this was achieved whilst maintaining a balanced environment for more traditional learners, while at the same time integrating a range of multimedia based enhancements for those who learn in non-traditional ways. This paper has argued that

adopting such an approach is an appropriate ethical response to massification and the demand for professionalisation of teaching in higher education that has arisen in response. It is hoped that the discussion provided in this paper may encourage more educators to consider the adoption of a multimodal approach for the purpose of delivering DE courses. However, in doing so there are important issues relating to how the implementation of these new technologies can be best integrated before the full benefits to the learning community can be realised. Ultimately, what this paper is suggesting is that, multimodal design for may reduce the impact of providing technology enhanced DE materials to a very diverse and an increasingly non-traditional student body.

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I'M NOT ALONE: FIRST YEAR COURSE LEADERS HELPED THROUGH COMMUNITIES OF PRACTICE

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ABSTRACT

This paper reports on a two year pilot project facilitating the professional development of teachers of first year courses through a community of practice. Community members reflect and co-construct initiatives to enhance the learning experiences of their students. They also develop strategies to meet individual, institutional and societal demands impacting on their teaching.

KEYWORDS

Communities of practice – professional development – first year students

INTRODUCTION

This paper reports on a two year pilot project aimed at facilitating the professional development of teachers of first year courses in the Faculty of Arts at the University of Southern Queensland (USQ), as an initiative of the Learning and Teaching Support Unit (LTSU). The project involved establishing a community of practice (CoP) to improve the quality of first year teaching in the Faculty and, consequently, students' learning outcomes. The pilot study found that the community has significantly contributed to the professional development of participating staff, fostering a transformative learning approach for these teachers, an approach consistent with the universities commitment to promote lifelong learning at all levels (USQ, 2007). By participating in the community members were able to reflect on their existing practices and co-construct initiatives to enhance the learning experiences of their students. It also assisted staff to address and develop strategies to meet the individual, institutional and societal demands currently impacting on their teaching. Using an action research approach, the project evaluated the impact of this form of professional development as well as coordinating a range of innovative curriculum strategies. The dynamic nature of this project conforms to the university's charter to establish innovative ways of supporting the learning and teaching (L&T) program. By researching this transformative process this project has demonstrated new ways of understanding the complex issues faced by teachers. This understanding will, potentially, have a significant impact on the ways the University supports both its staff and students in the future.

Defining communities of practice

CoPs have emerged in both education and industry as a means of facilitating the growth and

implementation of new knowledge and to foster organisational and individual learning. Wenger, McDermott & Snyder (2002), describe CoPs as,

“groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis. Over time, they develop a unique perspective on their topic as well as a body of common knowledge, practices, and approaches.” (p. 4)

They suggest that mutual engagement around joint enterprise is an ideal context for leading-edge learning and usually incorporate three fundamental elements; *domain of knowledge* (common knowledge about interest area), *community* (shared sense of belonging), and *practice* (a set of common approaches to problems) (Wenger, McDermott & Snyder, 2002). From the organisations perspective (in this case a university) CoPs may also be seen as a means of creating opportunities for mutual learning which accords well with learning organisation theory, as members of the CoPs reflect not only their own perspectives of practice but also those of the organisation (Cox, 2006). In the context of lifelong learning, this CoPs also addresses the personal and social dimensions of professional development that are becoming increasingly important at a corporate and organisational level (Chalmers & Keown, 2006, p.144).

CoPs have gradually been emerging in education, over the last decade, as a means of facilitating the growth and implementation of new knowledge and have become reasonably well established in the Australian Vocational Educational and Training (VET) sector and in industry (McDonald & Star, 2006). However, they remain a relatively unexplored phenomenon in Australian higher education (HE). McDonald and Star suggest that the slow uptake of CoPs in Australian HE may be influenced by its emerging corporate and competitive nature. At the university level this is seen in the traditional

concept of a private and individual approach to academic teaching, rather than a collaborative, community based approach. Whereas, Chalmers and Keown (2006) believe that CoPs are exactly the type of professional development that is required for teachers; who need to develop in three distinct ways, “professionally, personally and socially” (p.144), and that if any one of these dimensions are underemphasised then the effectiveness of the lifelong learning experience is compromised.

The driver for establishing CoPs at USQ

At USQ, the idea for CoPs for teachers of first year courses emerged from collaboration between the Faculty of Arts, the Faculty of Business and the Learning and Teaching Resource Unit (LTSU). The development of the CoPs concept was based on the recognition that the first year experience (FYE) can be difficult for many students, and particularly for those accessing university for the first time. Increasingly, diverse student cohorts are making new demands on universities, requiring a greater flexibility in access to programs and services (Laurillard, 2002). The profile of the ‘traditional’ undergraduate student, one that came to university straight from school, is also changing as international and mature age learner’s increasing access further study. Consequently, the FYE may vary dramatically for those unfamiliar with mainstream university culture and its many languages, i.e. information and communication literacies, research methodologies and core academic knowledge.

As well as this changed student cohort, the CoP’s initiative is driven by the need for academics to also manage burgeoning pedagogical initiatives emerging from the research literature on transition, retention and the FYE. This literature shows that both FYE and transition are complex phenomena (Krause, 2005): that students experience social, personal as well as academic transitions (Scott, 2005); that interactions between students and other in the university community and students’ interpretations of these contacts affect their transition (Tinto, 2005). Furthermore, transition is influenced by students’ perceptions of how well their cultural attributes are valued and accommodated and how well any differences between these and the university culture are bridged (Zepke, Leach & Prebble, 2003).

Educational literature also provides implications for CoPs. For example there is the increasing importance of a student focused curriculum and a range of socio/constructivist approaches that promote situated learning and learning based on

reflective and shared practice (Cox, 2006). The traditional view that learning is a process of transmitting information from the teacher (expert) to learner (novice) has been supplemented by the idea of the learner playing a more central role in constructing their own knowledge, and the teacher having a facilitating role in that learning (McDonald & Star, 2006). Critical discourse and multiliteracy theory (New London Group, 1996) contributes further implications for CoPs, including the importance of facilitating students’ engagement, mastery and demonstration of, a suite of learning and information literacies required if they are to succeed at university. Embedding these critical literacies and skills, and graduate qualities, has also been added to first year teachers’ repertoires. CoPs offers a space where first year teachers can be empowered to address these needs. Importantly, this approach allows those in the community to experience first hand the benefits of co constructing their knowledge, where, in a real sense the curriculum (or agenda) is shaped by the members, which in turn forms the basis of the learning circle (Cox). This shared approach is carried through into the action research methodology adopted to determine the benefit (or otherwise) of the CoP to its members at USQ.

The Arts CoP

The CoP process for teachers of first year students was initiated in the Faculty of Arts with the Dean acting as its supporter and “champion” in Semester 2, 2006. Learning and Teaching funds were obtained from the Faculty and were further complemented by funds obtained for the action research project to evaluate the effectiveness of the CoPs. These funds are primarily used to purchase refreshments for the group. The Arts CoP meets on the fourth Thursday of each month (February-November) between 2-4pm. The group consists of a faculty based facilitator, a facilitator from the LTSU and between 8-10 regular attendees. Members are, on the whole, faculty academic staff (associate lecturers to senior lecturers) from a range of disciplines. Two thirds of the members would be female, but this varies from meeting to meeting. The faculties’ liaison Librarian also often attends. The common bond among members is that they deal predominantly with first year students. In the weeks leading up to each meeting the facilitators work together to promote forthcoming meetings and to create an initial running schedule. The members teach a range of disciplines, teaching anywhere between one (1) and 1000 students in any one year, including on campus, external, off-shore and a combination of all three modes of delivery.

As the social nature of the CoPs is deemed important by the members and the meetings are kept reasonably informal. No formal minutes are kept, however the facilitators do keep good notes for future reference and action. Finger foods and beverages are made available throughout each meeting. Typically, the agenda is reasonably flexible, although there is an expectation that the designated issues for a given month will be discussed. Participants are given at least a week's notice of a given topic, most of which are generated from within the group itself from the previous month's meeting. For example, some of the issues addressed to date include: 'What do you do to engage students in the first three weeks of semester'; 'Lets talk about creating a marking criteria and a rubric as a way of making assessment requirements more explicit'; 'What is the first assessment item in your course and how do you engage students with this'. All the discussions are kept relaxed with an emphasis on sharing what has worked, or not worked, in a given situation and, as most of the topics are self generated, they resonate within the group. By the end of the meeting a number of ideas will have emerge about how members may address a given issue. These ideas are then written up and disseminated at a later date by one of the facilitators.

Evaluating the success of the CoP

The research project comprised three stages. Stage 1 was a voluntary online survey where questions were designed to provide some baseline data on the core group, including their teaching duties; their perception of key challenges facing them as university teachers; their understanding of current university-wide L&T initiatives; their perception of existing support for staff; and their perception of staff development practices in general. These data will be directly compared to data collected during Stage 3, which will not be collected until the completion of the two year project, in late 2008. Consequently, only Stage 2 findings¹⁴ are reported in this paper.

Stage 2 comprised voluntary semi-structured interviews of core group members using open-ended questions: what is working well in relation to the CoP; what could be improved (any suggestions); have there been any changes to your teaching as a result of CoP activity; and are there any changes you would like to make as a result of your CoP activity. These interviews were conducted by a fellow member of the CoPs in an open and collegial manner, with a view to

strengthen the ownership of this process by the community itself. The Stage 2 data reviewed here is the qualitative analysis of interview data from seven 'core group' members. This sample reflects Community of Practice theory (Wenger, McDermott & Snyder, 2002), which suggests that there is usually a core group of members in any Community of Practice who are more engaged than more peripheral members, and who provide the 'driving force' for group activities.

Findings

The data were analysed using a layered, thick approach (Martin-McDonald, 2000). The layered approach also provides a valuable way of systematically sifting out the participants' perspectives, facilitating its revelatory capacity (p.144). Supporting and assisting these analytical and interpretative processes are the use of 'thick descriptions' – the rich detailed descriptions of specifics – which, Geertz (1979) argues, are able to capture a sense of what is occurring, consequently permitting multiple interpretations whilst also helping to guard against the authorial power of any dual positioning (Martin-McDonald). This approach was used as it facilitates the process of unpacking meaning, proceeding as it does from description through to detailed analysis and finally to general interpretation.

Through this process three key themes emerged from the data:

- 1) the value of meeting others and sharing practice;
- 2) the opportunities to facilitate change, in relation to both students and faculty management; and
- 3) a shared understanding about strategies to manage challenges emanating from individual, institutional and societal demands on university teaching whilst coping with continuous change, excessive workloads and research output demands.

That the CoP meetings provided members with the chance to meet others and share examples of teaching practice was evident to all. Members valued the informal, social tone of the meetings, recognising that the CoPs enhanced their own learning:

First of all it's quite fun. We're getting together with first year lecturers and sharing ideas; I'm learning a lot (Int 4).

It's a productive forum. The thing I like about it is you get to relax quite informally and talk about things you otherwise wouldn't get to in the course of your day-to-day work (Int 3).

¹⁴ The analysis of the data or written text included in this document acknowledges the work of Dr. Sara Hammer.

Members also saw these meetings as valuable as they provided an opportunity for them to see what people from different areas and disciplines were doing, breaking down discipline silos and contributing to a more holistic faculty approach to L&T issues:

The good thing was to meet in an informal setting with staff...It's good to hear other people's ideas; yes, and I also think getting to know what is happening in other disciplines is useful because we're quite isolated in our discipline and quite often we don't know what is going on in other disciplines (Int 2).

One member found meetings affirmed for them a shared professional experience:

It's good to hear that other people have problems because you know you're not the only idiot that has them (Int 5).

CoP meetings appeared to play a particularly positive role for less experienced academic staff, helping them to become more familiar with the universities L&T discourses. This is in line with community of practice theory, which sees the induction of newer staff as a form of 'apprenticeship', which can be facilitated by 'opportunities for engagement with practice, defined by the social contexts of learning' (Bathmaker & Avis 2005, p.50). Two members made particular reference to the value of meetings as a sphere of influence in enhancing the faculty's culture in relation to L&T:

It's also good to surreptitiously air any out-of-the box teaching methods you're using to see if anyone faints or not; if they don't you know you're o.k. It's good for someone like me who's new to academia (Int 3).

As you know, I'm starting out in academe...It's really good to get those ideas and to compare and that sort of thing. Really getting new strategies from people who have been here for quite a while on how they teach and to compare and that sort of thing (Int 7).

For other staff, the opportunity to share ideas with more senior members allowed them to test their own ideas, and to build their teaching repertoire by trying out the ideas of others. One member reported a more fundamental affirmation of her teaching practice:

I have to say it's almost a relief to have an initiative where the University is acknowledging good teaching as an important part of academic work. It always seems like a struggle though to get it recognised – not like the research agenda tends to (Int 7).

All the seven members interviewed saw the CoP meetings in a positive light, particularly in their role as providing an informal, social space for the sharing of ideas about practice. However, while members accepted that the CoP was already disseminating good practice amongst its members, three out of seven interviewees wanted greater influence for the good practices outside of the membership. Two members made particular reference to a potential role for the CoP in lobbying senior management to achieve positive changes. For example:

A site for dispersal for things such as graduate attributes; it would also be nice if a few more senior people came to hear what was going on (Int 1).

I'd like to see us develop an 'agenda for change' – some big pieces we would like to lobby USQ Senior Management about so that it feels like the CoPs have 'real teeth' (Int 7).

Testimony like this confirms Dozier's (2007) view of the importance of teachers' desire to gain further training in affecting change in their spheres of influence. Dozier argues that teachers who wish to become more effective leaders utilise professional relationships. The data demonstrates that, in terms of changes in staff teaching practice:

There are things I've come away thinking about: like diversity of assessment...We're certainly always trying to think about – not just student retention but trying to build students' skills bases very quickly (Interview 1).

Another member was planning but had yet to make changes to their teaching practice.

I haven't [made any changes] as yet but am in the process of planning to do so. One system that came up was assessment via a rubric (criterion-referenced marking and standards sheet) (Int 3).

These comments highlight two of the three areas of change in practice generally targeted by members: teaching students how to learn, and providing greater transparency in assessment practices. One member had made changes in their teaching with the aim of incorporating academic skills and literacies into their curricula. This represented a break from past practice:

[I am] putting a real focus on incorporating study skills into the first year courses; I think in the past its been pretty much sink or swim. So they [students] were expected to know how to reference, and know about ebSCO host and the library and all of this (Int 6).

The particular focus of this member's skills-based teaching was information literacy:

One big thing I've been doing is talking about internet sources...I've now actually got a restriction on the number of internet sources they can use so we can set them on the path of using books and journals primarily, with some additional internet sources (Int 6).

Some members focused changes in their teaching on initiatives that either created a better 'social' environment for students, or focused on transitional initiatives to provide first year students with appropriate guidance and support. Two of these members made changes which were aimed at creating a better environment for their students:

[I am] also getting the students to know and interact with each other early on. I've introduced 'speed dating' exercises to they all get to know each other one on one, and we all introduce one other person to the group so they've already started to bond...So now we've got this community in class and they're not so frightened to speak up (Int 6).

Other members focused more on transition strategies that either explicitly addressed USQ expectations with students, or provided additional support for first year students:

Things like strategies for remembering names, thinking of ways of connecting students who commence in 2nd semester with those who have already been here for a semester, taking the time to connect students with resources that will help them (eg. referencing guides, the Learning Centre) (Int 7).

A final group made changes to their assessment practice, either the assessment itself, or related marking and moderation processes. Two members made substantive changes to their assessment practice as a result of CoP activity. As one interviewee explains:

As a result of something that came up in Cops, I tried a lighter assignment at the end of the semester, which was designed to keep students engaged til the end of semester (Int 4).

An additional two members made changes to marking and moderation processes for their assessment with the aim of increasing grading fairness and transparency for students:

Yes, I hijacked the [marking] rubric; took the existing rubric, which was totally inadequate and threw it in the bin...it's now a lot better. I try and adopt really transparent assessment procedures (Int 3).

When I started here there weren't any clear criteria for assessment so I've gone through and written criteria sheets for each individual assessment so they can clearly see what they're being marked on. And they get that in the course syllabus, so they're aware of that right from the beginning...I go through it with them (Int 6).

All members interviewed wished to make some kind of change, either to their own specific course, or widening their sphere of influence to program and discipline level:

What we've been doing in first year in our disciplines actually using flexible delivery; continuing to become more effective at that and improving the application to that (Int 1)

I think there needs to be a development of skills as we go along and so hopefully next year that will happen. I want to have it so it's building process so it's skills as well as discipline-based knowledge. So I guess that's the change I really want to make (Int 6).

DISCUSSION

Based on the interview data, the Arts CoP can demonstrate broad success in terms of positive staff perceptions and as a vehicle for change in teaching practice. Participants clearly valued the social, collegial and mentoring aspects of meetings as an end in themselves. Indeed, key terms such as 'social' and 'sharing' stand out as features of the CoP meeting valued by all members. This is supported by Chalmers & Keown (2006), who propose that CoPs are increasingly seen as an avenue for social change and a driver of professional development for many teachers; one designed to meet many of their lifelong learning needs.

The majority of those interviewed acknowledged some existing or planned change to their teaching practice as a direct result of CoP activity. In particular, initiatives aimed at engaging students, developing their academic skills and literacies, developing student independence (peer learning) and providing greater transparency in assessment practices were identified as having a positive impact on the student experience. However, issues such as the need for greater focus and structure, raised by some members, point to possible avenues for increasing the effectiveness of the CoP as a vehicle for change. Likewise, as flagged by some of the respondents, another possible means of improving the CoP as a vehicle for changes in practice is to think of strategies for wider dissemination of good practice.

CONCLUSION

This paper has reported on the progress of a two year pilot CoPs project aimed at facilitating the professional development of teachers of first year courses at USQ, since its inception in 2006. Through the analysis of one-on-one interviews the broad institutional and professional context, within which the CoP operates, is more clearly understood by CoPs members. The analysis also reveals evidence of the efficacy of the community to date. The community has been, thus far, successful in its intended purpose. Sharing of professional knowledge and changes in teaching practice in the areas outlined here will arguably benefit students through the provision of better practices and processes of first year engagement, a greater emphasis on scaffolding and embedding skills and literacies and a greater transparency in assessment practices. It is anticipated that staff participating in the CoP will continue to benefit through the opportunities for critical reflection and professional development offered by their community. The project found that the community provided a vehicle for professional development to promote quality L&T across the Faculty and particularly to those involved with teaching first year students. The paper demonstrated how a community of practice approach can augment an organisation's mandate to provide professional development to its staff in such a way that is consistent with its charter to provide lifelong learning opportunities for both its staff and students.

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INFORMATION LITERACY: PAST SUCCESS AND FUTURE NEEDS FOR UNDERGRADUATE HEALTH PRACTITIONERS

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ABSTRACT

This paper outlines three research projects that explore information literacy (IL). Two projects reveal successful improvements in the IL skills and behaviours of students from undergraduate health programs, whilst the third project exploring the accessibility of professionally relevant information resources to the same group of graduate health practitioners reveals a complex web of levels of access and IL skills, elucidating current and future needs at the undergraduate and graduate health practitioner level.

KEYWORDS

Information literacy – lifelong learning – access – evaluation

INTRODUCTION

Lifelong learning (LLL) and Evidence-Based Practice (EBP) are widely recognised as essential components of practice within the health professions (Gopee, 2001; Jarvis, 1987; Madewell, 2004; Wong & Venness, 2005). Information literacy (IL) has been described as an enabler of LLL (Candy, 1991) and EBP (Brettell & Grant, 2004; Kaplan & Whelan, 2002; Snowball, 2005). In Australia and internationally, strategies and activities have been implemented to support student IL development. RMIT University is amongst many who aim for their graduates to have well developed information literacy and be able to 'effectively access, manage and utilize information in their professional and personal capacities, as well as actively engage in lifelong learning'. (RMIT, 2005)

The information explosion in the fields of health and medicine resulting from new knowledge and technological developments continues at an exponential rate (Kaplan & Whelan, 2002; Lefebvre & Clarke, 2003). The implications for change and development of practice is clear; graduate practitioners in these fields must have the skills and understandings to develop as independent lifelong learners to advance their personal and professional practice in the increasingly evidence based environments they will encounter (Dawes, 2005; Kaplan Jacobs, Rosenfeld, & Haber, 2003).

Three projects that were progressed or finalised by the authors during tenure of an RMIT Teaching and Learning Fellowship in 2007 are discussed in this paper. Two projects (Projects 1 and 2) were focussed at supporting the development of undergraduate (UG) student IL skills and behaviours. The third project

investigated the accessibility of professionally relevant information sources to graduate health practitioners. All students in Project 2 and students from one of the six undergraduate program teams studied in Project 1 become Medical Radiation Science¹⁵ (MRS) practitioners upon graduation. Participants in Project 3 were current MRS practitioners. This three-pronged approach provides evidence of the IL skills within the MRS profession at both the undergraduate and graduate practitioner level as well as illuminating issues of accessibility to professionally relevant information resources for these practicing health practitioners.

Project 1: IL Development of First Year Medical Science Undergraduate students

The information literacy (IL) development that occurred following a common five week compulsory Foundation Tertiary Learning Module across six UG programs was evaluated. The Foundation Module sat within each of six courses aimed to introduce the student to their chosen discipline, and varied in teaching and assessment approaches in the remaining 8 weeks. There were three scaffolded learning activities for IL development which were scheduled to provide optimal timing for the learning activities including due dates for assessment purposes. Evidence of the development of IL skills was specifically assessed as a learning outcome, and thus was considered to be integrated into the course (Lupton 2004).

Method and results

The evaluation tool used was updated and adapted for the Australian context from one used by Mittermeyer (2005) and Bernath & Jenkin (2006). The tool collects demographic data, and has 20 multiple choice questions grouped around

¹⁵ The health practitioners in this study are Medical Radiation Science (MRS) practitioners and consist of Nuclear Medicine Technologists, Radiation Therapists, Radiographers and Sonographers.

five themes which can be related to the ANZIIL Framework standards (2004). The maximum possible score is 20. The tool was used before the Foundation Module (Round 1; n = 274) and after (Round 2; n= 151) with 102 matched pairs occurring. Quantitative analysis was conducted

Table 1: Analysis of Mean Scores of various groups.

	Round 1 (Week 1)		Round 2 (Week 13)		p value
	Mean	SD	Mean	SD	
Whole Cohort	9.142	2.863	11.051	3.204	<.001 *
Matched Pairs	10.219	2.537	11.719	3.312	<.001*

statistically different from 0.

As is demonstrated in the table above while the mean scores of the incoming students was not high, (maximum score possible is 20), improvement across the semester did occur. When the differences in Mean scores were calculated for all students in both rounds (whole cohort) and for the Matched Pair group within the cohort, positive and statistically significant

using Microsoft Excel © and SPSS © V15 software using Paired Sample T tests and correlation (2-tailed) analysis. Mean scores and analysis of variance were calculated for both the Round 1 and Round 2 cohorts, as well as the Matched Pair group.

** Values of $p > 0.05$ indicate the value is not*

differences were demonstrated. When the data from the Matched Pair group is interrogated further by considering individual programs, it is revealed that students of Programs 1 and 6 have statistically significant differences in their mean scores between the two rounds, however the students from Programs 2, 3 and 4 do not. See Table 2 below.

Program	N = 102;n =	R1 Mean	R1 SD	R2 Mean	R2 SD	p value
1	28	10.879	2.747	13.336	2.689	<.001*
2	9	10.278	3.771	11.100	3.602	.108
3	23	10.169	1.981	10.926	3.946	.170
4	23	9.839	2.035	10.469	2.967	.186
6	19	9.737	2.740	12.100	2.822	.001 *

*Table 2: Matched Pair data analysis of Mean Differences by Program * Values of $p > 0.05$ indicate the value is not statistically different from 0.*

Project 2: IL development embedded in a 2nd year undergraduate project

This project (MS) embedded IL development within a group project. Purposefully designed collaborative learning activities were used to scaffold 2nd year UG radiography students as they undertook their project. The activities were aimed at supporting students to expand their information search process beyond 'Googling' to include database searching and to expand their process for evaluating the quality of information they retrieve. These focuses were chosen as the literature identifies they are not well developed in UG students. See Shanahan (2007) for a description of the intervention.

Methods and results

This course level intervention used a purposefully developed questionnaire to gather data on information searching and evaluation practices of students. A four-point scale described by Catts (2003) of usually, often (>½ time), sometimes (<½ time) and rarely was used to collect data on information search practice of students pre- and post-intervention. Open-ended questions were used to ascertain which databases

and search engines students were using and the criteria students used to evaluate information retrieved from the internet. Anonymous surveys were used for data collection and so it was not possible to pair data for analysis. Survey data was input into SPSS 15® and descriptive and inferential statistics were used to analyse this data. Percentages were used to describe survey findings. Differences between groups was examined using Fischer's Exact test, as SPSS warning for small cell size precluded chi-square (χ^2) analysis. Combined data from two years, 2006 and 2007 are discussed in this paper.

There was a positive increase in frequency of database searching post-intervention (Fisher's Exact Test = 25.738, $p = .000$) with 93% of students *often* or *usually* searching databases for university assignments or projects compared to 51% pre-intervention. At the pre-intervention survey 28% of student typically searched two or more databases and this increased to 92% post-intervention, with over two-thirds (69%) of students searching 3 or more databases. The databases students nominated as searching included general health and medical databases such as Medline® / PubMed®, ProQuest® as well as discipline specific databases including CINAHL®, Science Direct®, Expanded Academic ASAP™ and Informit plus text®. Change in search behaviour and knowledge is

demonstrated by a students comment about what they have learned from the intervention “It’s important to use wide range of databases and make changes to your search statement to find a wider range of information”. Internet searching was an important part of the students search behaviour pre- and post- IL activities. There was no significant difference in level of internet searching pre- and post- intervention ($p = .763$). An increase in use of GoogleTM Scholar was seen post-intervention with 40% of students using it compared to 9% pre-intervention.

Students were asked to name criteria they used to evaluate information retrieved from the internet. Pre-intervention nearly half (47%) of the students named a single criterion to evaluate information retrieved from the internet. Post-intervention 79% of students named 3 or more criteria (Fisher’s Exact Test = 33.608, $p = .000$). Criteria identified post-intervention included publishing organisation, credentials of author, date of publication or last-updated, domain, and review process such as peer-review.

Project 3: graduate practitioners

This project (MS) focussed at the graduate MRS practitioner explores the accessibility of information resources to practitioners in their workplace. MRS practitioners, like other health practitioners must stay up to date with the changing knowledge base of their profession (AIR, 2004; SOR, 2007). To successfully implement LLL and EBP practitioners must have access to professionally relevant information resources. Yet interestingly there has been no research to investigate how accessible professional relevant information is to MRS practitioners once they graduate from university.

Methods and results

In April-May 2007 a four-page questionnaire was sent to a random sample of 1067 MRS practitioners registered with the Queensland and Victorian Medical Radiation Technologists Boards. The questionnaire was developed following interviews with 28 academic and clinical practitioners to establish issues relevant to the MRS profession (Punch, 1998; Williams, 1997). Three hundred and twenty useable surveys were returned from clinical practitioners.

Respondent characteristics

All areas of specialisation were represented in the respondents with the spread across specialisations in proportion to available demographic data (AIHW, 2003). Practitioners were split fairly evenly between the public (53.1%) and private (46.9%) sector with over half (54.6%) employed in teaching hospitals. The majority of respondents (58.3%) were employed in metropolitan locations with 15.1% in rural & remote locations.

Accessibility to information resources in the workplace

Aspects of accessibility to information resources discussed here are access to the internet in their workplace, number of journals practitioners have access to and skill level of practitioner.

Access to the Internet in the workplace

Table 3 illustrates the variability of access to the internet that exist within the workplaces of clinical practitioners. The difference in computers with internet access was not significant for healthcare sector.

	Fisher’s Exact Test	P value	Access to the internet in their workplace
Metropolitan / non-metropolitan location	11.005	.025	Internet access on all computers: Metropolitan (42.3%), non-metropolitan (36.8%) No Internet access: Metropolitan (0.6%), non-metropolitan (7.4%)
Teaching / non-teaching environment	19.623	.000	Internet access on all computers: Teaching (48.2%), non-teaching (28.1%) Internet access only on computers in offices: Teaching (15.5%), non-teaching (31.7%)

Table 3 Variations in access to the internet across clinical workplaces

Internet access whilst available on computers did not necessarily mean that clinical practitioners could access it as lack of passwords or permission prevented access. Comments included “All computers have internet access but need password which staff rads [radiographers] are not given” and “all computers have internet

access but 2/100 staff have access”. Internet access was also limited to restricted sites for some practitioners for example “do not have access to web only government [health] site”.

Access to journals

Access to journal was assessed by the number of journals practitioners identified they had access to from of a list of 96 professionally relevant journals. Ten percent of practitioners reported they did not have access to any journal on the list, with this rising to 17% for rural and remote practitioners. Nineteen percent of practitioners had access to a single journal (percentiles 25th = 1, 50th = 4 and 75th = 9).

Skill level of practitioners

Practitioners were asked to self assess their skill level for internet searching, database searching and evaluating the quality of information retrieved from the internet. It is evident from Table 4 that practitioners are confident in their ability to search the internet but their perceived skill level for evaluating the quality of information they have retrieved from the internet is lower. One quarter of practitioners rate their database searching skills as low or very low, with a further 13.8% having never searched a database.

	Very high	High	Moderate	Low	Very low	Never done it
Internet searching (n=319)	29.8%	32%	24.8%	7.2%	4.4%	1.9%
Evaluating quality (n=318)	11.6%	24.2%	40.9%	11.3%	6.3%	5.7%
Database searching (n=320)	8.1%	20%	33.1%	12.5%	12.5%	13.8%

Table 4 Practitioner self-assessment of skill level for searching the internet, evaluating quality of information retrieved from the internet and databases searching

DISCUSSION

IL skill development has been widely adopted in higher education (Johnston & Webber, 2003). It is established in the literature that IL education interventions can increase the skills and abilities of students, (Salisbury & Ellis 2003; Shanahan 2007; Andrews & Patil 2007) as research from these projects also supports. The results from projects 1 and 2 show that an increase in the Information Literacy skills does occur across a semester, when purposefully designed interventions embedded within or with associated independent learning activities are utilised. The changes in IL skills included improvements in basic search skills, expansion of their search behaviour to typically include database searching, and an increase in the number of criteria they use to evaluate information retrieved from the internet.

It is also evident from this research that following any one intervention there remains a range of skills and behaviours requiring further support and development, which supports the need for sustained development of information literacy skills throughout the undergraduate programme as supported in the literature (Harris & Rourke 2006; Haines & Horrocks 2006). In Project 1 for example the more advanced Search Strategies (Use of a Controlled Vocabulary for example) and the Use of Search Results (spanning across ANZIIL standards 3,4 & 6) were the areas that showed little improvement across the semester and indicate a future need for

additional support via dedicated learning activities. The applications of these skills are vital for the practitioner engaged in meaningful lifelong learning.

In Project 1 there were statistically significant differences across the semester in the mean scores of students from two of the five programs. Programs One and Six include an independent learning activity (a peer and tutor assessed Group Project and Presentation), while the remaining programs focus their assessment around tutorial activities and end of semester examinations. These results therefore appear to support the use of independent, peer reviewed learning activities to better suit current student learning styles (Manuel 2002, Sharkey 2006, Graffam 2007) and also to enable the students a repeated opportunity to engage with a contextual IL learning activity to help further develop their skills and understandings.

Project 2 demonstrates the expansion of student search process to routinely include searching of multiple databases. Database searching is an uncharacteristic part of the UG students search process (Callinan, 2005; Griffiths & Brophy, 2005; Urquhart et al., 2005) yet database searching is one of the positive outcomes of this project. Database searching is considered an important part of the information search process of health practitioners (Griffiths & Riddington, 2001; Masters, 2006) so by supporting UG students develop their information search process

we are helping to prepare them for graduate practice.

Graduate practitioners assessment of their skill levels for database searching and evaluating the quality of information retrieved from the internet is much lower than their skill level for internet searching. It is apparent that there is a current need for practitioners to engage in supportive education activities to develop their database searching and internet evaluation skills. These skills are being developed within undergraduate programs as shown here in Projects 1 and 2, which supports the long-term development of such skill and behaviours within the profession.

It is also evident from this research that access to information resources in clinical environment of the graduate practitioner work place is not homogenous. Internet access in the clinical environment varied from open access on all computers to no internet access due to there being no computers in the department with internet access or practitioners being denied access to it. Many clinical practitioners had access to a single journal, generally from their professional society. It is expected that MRS practitioners stay up to date with the changing knowledge base of their profession, implement EBP, and undertake research (AIR, 2004; SOR, 2007). To successfully undertake these activities, practitioners require access to a wide range of quality information resources. However, for many MRS practitioners, this research demonstrates this is not the case.

The individual project results as well as the conglomerate approach taken in this paper considering the IL needs of both student and graduate practitioners, whilst illuminating the workplace reality of access to professionally relevant information resources for graduate practitioners may be of interest to educators and librarians involved in delivering courses and services to students and practicing professionals in the health sciences and more broadly in other professional discipline areas.

CONCLUSION

The past successes are shown by the positive changes in IL development demonstrated at the UG level interventions which support students to more fully engage with quality health and medical information available to them within the information-rich university setting. At the level of the graduate practitioner there is current need for skill development in database searching and evaluation of information retrieved from the internet. The current and future need of many clinical practitioners, including our

undergraduate students upon graduation, is for an improvement in the physical access to health and medical information resources. Without this access and improved skills and understanding of Information Literacy, active engagement in lifelong learning and evidence-based practice will be compromised.

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KNOWLEDGE MANAGEMENT AND LIFELONG LEARNING: REFLECTING ON SUCCESSES AND FRAMING FUTURES

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ABSTRACT

This paper explores the implementation of a human resource information system at an Australian university in 2007 as an opportunity for the systematic management of organisational knowledge. Systematic management of personal formal and informal learning is needed if lifelong learning futures for individuals and institutions are to be maximised.

KEYWORDS

Australia – case study – human resource information system – institutional perspective – knowledge management

INTRODUCTION

Knowledge management may be considered both a mirror image of and a counterpoint to lifelong learning. While lifelong learning implies an individualistic perspective on maintaining knowledge needs, knowledge management implies an institutional perspective. This paper uses a case study (Stark & Torrance, 2005) approach to assess the extent to which a focus on knowledge management guides and informs practice. The case study consists of the implementation of a human resource information system (HRIS) at an Australian university between June and November 2007. One of the authors was the project manager during this period, and the case study is the result of a subsequent critical appraisal (approximately six weeks later) by both the authors (one of whom was independent of the project). The framework used for the analysis was developed heuristically, as part of the critical analysis.

The implementation of a computerised information system can be conceptualised as managing knowledge in at least two dimensions: Firstly, the mechanistic system captures, manipulates and produces information. Secondly, the implementation exposes to analysis a significant amount of organisational knowledge and offers the opportunity to capture and subsequently to manage this knowledge systematically. The paper explores the second dimension: the types of knowledge that are exposed and the processes used to capture and thereby to manage this knowledge, in the process reflecting on successes and framing futures from an institutional perspective.

The paper is divided into three sections:

- In the first section a conceptual framework focused on the relationship

between knowledge management and lifelong learning is presented;

- In the second section an analytical framework and model of knowledge management are outlined;
- In the third section a case study of the implementation of the HRIS using the analytical framework developed and described in Section 2 is discussed.

CONCEPTUAL FRAMEWORK

Several aspects of the contemporary emphasis on the knowledge society have profound implications for lifelong learning and university learning and teaching. While much of the knowledge management literature pertains to businesses and firms (Lam, 2000; Nonaka, 2005), a steadily growing subset relates to knowledge management in and of universities (see for example Butera, 2000; Ramachandran, Chong & Lin, 2008; Rooney, 2000). Representative themes within that subset of literature range from human–computer interaction in knowledge management (Metaxiotis & Psarras, 2003) to university academics' understandings of knowledge management (Mohayidin, Azirawani, Kamaruddin & Margono, 2007) to knowledge management enabling strategic career planning (Menkhoff, Loh, Chiang & Chay, 2005).

While noting that suggesting a linear or automatic link between knowledge management and lifelong learning carries the risk of an inductive fallacy (Fischer & Otswald, 2001), we suggest that useful parallels may exist – that insights in one may suggest comparable insights in the other. This paper explicitly investigates knowledge management, and by using a framework of four components illustrates the rich, interrelated ways in which knowledge is created, held and utilised in an organisation. Although it is beyond the scope of the paper to prove the parallels, we invite the reader to consider critically whether the rich, integrated elements of knowledge management illustrated

in this paper hold suggestions for framing futures in lifelong learning.

ANALYTICAL FRAMEWORK

We propose a model of knowledge management that comprises two sub-domains: soft and hard

systems, each with two components. The two components of the soft systems domain are networks and culture, while the two components of the hard systems domain are systematic education and storage systems.

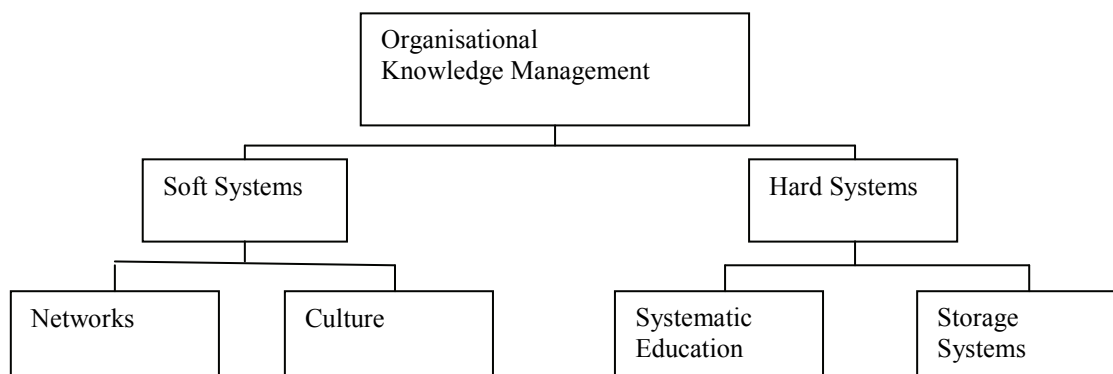


Figure 1 Model of knowledge management

Each of the components of the knowledge management analytical framework presented in Figure 1 above is described below.

For the soft systems domain:

Networks are conceptualised as including social networks (Cross & Parker, 2004) and communities of practice (Wenger, 2000). Different knowledge is held by different individuals. Network management requires knowing who has what information, as well as maintaining a relationship whereby all parties willingly fulfil one another's knowledge needs. Individuals need to maintain networks within and across their business units as well as outside the organisation. Email lists, conferences and divisional morning teas are all networking devices.

Culture is deemed to apply to/incorporate both organisational and personal dimensions; both these dimensions affect the practice of knowledge management. The word "culture" is an amorphous term, with multiple meanings for different people. We use the term to include the skills, attitudes and motivations that promote learning and knowledge management, ranging from the ability and willingness to form networks with strangers and openness to new ideas and to sharing information to the perception of knowledge as an important and useful commodity in its own right.

For the hard systems domain:

Systematic education is seen as including formal educational initiatives, such as training and

courses. We use the term "systematic education" to emphasise the elements of designed instruction: content specification; design of delivery; delivery; assessment; and accreditation and maintenance (Somasundaram, Bowser & Danaher, 2006).

Storage systems are the systems used to store organisational knowledge physically: policy documents, process manuals, shared directories and archives. Of importance are the integration, searchability and maintainability of these databases. An economical hybrid is learning management systems that act as both the principal store of knowledge and a systematic education mechanism.

CASE STUDY

The case study used to test this model is the implementation of elements of the HRIS between June and November 2007. A project was initiated in February 2006 to upgrade an existing human resources computer package to the latest version and implement additional functionality not previously implemented. Prior to the period of the case study, the HRIS was operated and used only by staff in the human resources division. Staff received paper payslips and applied for leave on paper. During the period of the case study, the project moved personal information and leave management to the user.

From the project's perspective, there are two knowledge management components: firstly managing the knowledge of the project group itself; and secondly subsequently meeting the

knowledge management needs of those who will support (i.e., the information technology and human resources divisions) and use (i.e., the rest of the university) the HRIS.

Networks

An important strategy in formulating the project team was to second staff from both the information technology and the human resources divisions, who would return to those divisions at the completion of the project. The strategy delivered a number of knowledge management benefits: firstly, the staff had an inherent expertise; secondly, these staff helped establish strong networks between the project and the two key divisions; thirdly, the two groups of project staff interacted, integrating the business and the technology; fourthly, when the staff returned, they carried back the system expertise that they had gained; and finally the secondments helped establish a culture of ownership, not only among those seconded but also with those whose colleagues and subordinates were developing the system.

Networks were also established outside the organisation with the software vendor and other organisations using the application. A senior member of the supplier organisation was invited to sit on the project board (a voluntary role that was gladly accepted). This provided him with an understanding of the issues being faced by the project, and allowed the project to mobilise both his and his colleagues' expertise more easily.

The project tapped into two product-specific networks of users, one supported by the vendor and the other of universities that used the application. Email lists were regularly used. Three common uses were: for specific problem solving; to canvass options (it was quite easy to carry out a quantitative and qualitative survey on how an issue was being addressed); and to obtain documentation and presentations for plagiarism.

The project also used a set of networks to promote learning during implementation. The project identified "Champions" spread across the different parts of the university, and they were provided with early and more intensive exposure to the new system. While training was provided directly to all staff, the champions provided informal one-to-one support to staff the first time that they used the system.

Of interest was what could be termed "contrast networks" – the use of those who could disagree with or oppose the project. This strategy explicitly identified those who could be

negatively impacted on by the project and developed a dialogue with them. They provided the knowledge necessary for a more inclusive product. Two informal groups were gardeners and visually handicapped staff.

The project could have avoided contact with two formal groups, the Staff Consultative Committee (which included the unions) and the senior management group, the Vice Chancellor's Executive. Both those formal networks are rich in knowledge, but have their own busy agenda, and were used as confirmatory knowledge sources: the project documented its understanding of issues and likely solutions and used their expertise to critique that understanding. Their examination assessed and their approval accredited the project's knowledge.

Networks can also include relationships of mentoring, coaching and supervision. The institution had a formal performance management framework, and the project did some initial work in computerising this activity. Within the project itself, formally acknowledged relationships of coaching and mentoring did not exist, although there was recognition of whom to go to for specific types of information.

Universities have a significantly untapped potential for integrating the knowledge of theory and best practice of the academic community with the situated and practical knowledge of the operational staff. The project earmarked a small portion of its budget for a research activity that would benefit the project. Some attempt was made to locate a suitable and interested staff member, but this task was recognised as low priority and was not progressed. A more successful use was made of academic expertise in computer-based training: academic staff in this discipline tested and criticised the online training material that the project had developed. This paper is also a product of the successful partnership between the academic and the operational communities.

Culture

One would expect a university's culture to embrace knowledge management (with perhaps a philosophical difference that a university embraces knowledge for its own sake, while organisational knowledge management is a means to an end). The university explicitly defined its values in its strategic plan (Central Queensland University, 2006, pp. 1-2). Its eight values (Developing Relationships; Integrity; Creativity and Innovation; Academic Freedom; Accountability; Life Balance; Lifelong Learning;

and Practice [*sic*] What We Teach) are what one would likely expect to see in a specification of the values necessary in a culture that promotes knowledge management. These values were formally discussed several times at project meetings, and were posted on a wall. The further question, of the extent to which these values were embraced by the university in general and the project in particular, while clearly relevant, is beyond the scope of this paper.

The appointment of a senior manager of the vendor's organisation to the project board raised concerns of independence and confidentiality. On the other hand, it communicated the values of partnership and openness.

A source of significant tension in the project was the somewhat conflicting needs of rapid project delivery on the one hand and the time consuming tasks of knowledge consolidation and sharing and the maintenance of networks on the other. These cultural differences are often evident between external contract staff and in-house staff in a project, and mixing the two cultures often provides a reasonable balance. The project had previously used external contract staff, but they were not present during the period of the study.

The use of contrast networks could be viewed as the social equivalent of critical thinking. As could be expected of an attempt to introduce conflicting views, it had a degree of initial resistance, both within the project team and from others.

Systematic education

The immediate systematic education needs of the project staff can be broadly grouped into two elements: an understanding of the application; and the generic skills required for their role. During the early parts of the project, a consultant from the vendor was brought in to provide just-in-time training of three to four days to cover the needs of work for the next three to four weeks. The training had an extremely brief content specification (captured in the assignment specification with the vendor). The design of delivery consisted of mapping the business needs to the relevant configuration screens of the application, and to the vendor documentation for that configuration. Delivery consisted of hands-on walk throughs of the relevant material by the trainer, using a test application and vendor documentation. There was no assessment or accreditation. Substantial learning and consolidation (arguably a maintenance period) took place in the subsequent few weeks, as the project staff applied their new knowledge to deliver the project. The trainer was freely

available (through telephone or email) to provide assistance and support. The use of the consultant was dispensed with about halfway through the study, partly owing to the staff becoming more familiar with the product but mainly because the university was able to recruit a staff member with substantial human resource systems expertise, who was knowledgeable and confident enough for independent learning.

User training could be viewed as having six components. First is what could be viewed as parallel to a readiness to learn stage, of advising the community of the project and its broad implications. The project used formal mechanisms – staff emails, the online newspaper and a website – as well as networks to deliver this awareness. The second component was the training of champions. While the same training material was used for the champions and for regular staff, the training for the champions was earlier and more intense (for example, smaller groups). They were also used in acceptance testing, where user staff spent hands-on time on the system, systematically testing all the procedures, as well as some 'free' time doing *ad hoc* processes and testing whether it was 'idiot proof'.

Storage systems

Documentation of organisational rules lends itself to being characterised as a three-level hierarchy. At the highest level are the databases containing the laws and standards that the organisation must know and conform to. Next come the organisational policies and finally the procedures: the step-by-step processes for getting things done.

Legislation and standards are typically used by only a few specialists. Legislation is currently publicly available on the Internet, but identifying which legislation is relevant to an issue and interpreting the legislation require specialist skills. For example, when exploring the legal requirements in relation to electronic paysheets, the project initially approached the organisation's lawyer – that is, the information was primarily accessed through networks rather than storage systems.

The organisation stores its policies and procedures in a web application available to all staff. The organisation has a standard format and protocol for maintaining policies and procedures, specified in a policy. A policy and its associated procedures are captured in a single document. The organisation has approximately 450 such documents, and a recognised goal is to streamline and reduce the number of these

documents. For example, the organisation had six different policies that covered different types of leave, and the project consolidated these into a single overarching leave policy.

The Law–Policy–Procedure framework describes only partially the knowledge storage systems. A principal piece of human resources knowledge is the legal agreement between the organisation and employees, captured in the Employment Bargaining Agreements (EBAs). The EBAs are stored documents available through the human resources division website.

There is also a need to have available more detailed procedural information than is captured by the procedure documentation – detailed ‘how to’ information of step-by-step screenshots and what data to enter where. These process flows are used during training, and the university had learning management software systems, one for academic teaching and the other for administrative applications. There were learning and administrative overheads with using these systems, and the project decided to create relatively simple video and sound streams using a low cost Adobe product. Separate streams were created for each task that a user may wish to perform and these were linked to the HRIS webpages for direct and easy access.

There are two other stores of more technical information. One is the technical manuals provided by the application vendor, presented in electronic format and stored on the project’s directories. The other is documentation explaining the configuration adopted by the project. These two stores are related, the first being generic and the second specific.

Two other knowledge stores contain data on organisational transactions. Completed forms and other paper documents were stored in paper files, with plans to move them to a document imaging system known as TRIM. The other knowledge store is the HRIS itself, which represents a significant knowledge store for the organisation. An early objective of the project was to improve the human resources information available to the organisation. However, during the study, this objective was not considered a priority, and relatively little progress was made towards it.

DISCUSSION AND CONCLUSION

This case study demonstrates that, in practice, organisations manage knowledge in rich, interconnected and diverse ways. The proposed framework of four components appears to provide one simple and clear but reasonably

widely applicable model for framing knowledge management practice.

In the area examined by the case study, knowledge management was by no means explicitly labelled and systematically managed in an holistic, integrated manner. Nevertheless, its elements are identified and promoted with (in the opinion of the authors) reasonable success.

At the beginning of the study, the authors suspected that the soft systems would be less developed than the hard systems. It is therefore interesting to note that the soft systems are recognised and nurtured by the organisation as well as being quite sophisticated. The authors therefore suspect that it is likely that in practice in communities and among individuals who embrace lifelong learning not only systematic education but also networks, culture and storage systems have an important place in their management of their learning and knowledge.

This conference seeks to reflect on our successes and frame our futures in and for lifelong learning. This case study demonstrates that the principles of lifelong learning are applied in practical and diverse ways in organisations, and in framing futures we should appreciate the complex and interrelated ways in which that learning is nurtured through effective and potentially empowering knowledge management.

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STRATEGIC ORGANIZATIONAL DIRECTION SETTING: A WORKPLACE LEARNING OPPORTUNITY

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ABSTRACT

Amidst dynamically changing information access and knowledge creation environments, employees of the Dr. Martin Luther King, Jr. Library in San José, California completed organizational development activities. Focused on strategic directions, participants advanced lifelong learning proficiencies, which they now exercise with Web 2.0-enabled communication systems fortified by reinvented structures and processes.

KEYWORDS

Lifelong learning, workplace information literacy

INTRODUCTION

Traditionally, libraries have served as repositories of societal information sources. Public services librarians assisted mystified users to negotiate the intricacies of document organization and access. Knowledge production was the purview of experienced 'expert' scholars and their supervised graduate students. Now, however, data and information finding is easy – i.e., Google it! The World Wide Web and Internet usage is transforming scholarly communication patterns – which is no longer reliant on bibliographically controlled, peer reviewed information systems. Knowledge creation is increasingly democratized – witness the communities of inquiry using freely available Wiki and blog technologies. These changing circumstances offer unprecedented opportunities for libraries to reconsider their traditional purposes and re-invent their conventional assumptions.

In response, intentional workplace (re)learning has been introduced at the Dr. Martin Luther King, Jr. Library. A future-oriented partnership between San José State University and the City of San José, this organization is the largest co-managed library in the United States. Since it opened in 2003, the King Library has served as a lifelong learning center for the greater campus and city community. The state-of-the-art award winning facility is enriched by abundant physical and virtual information resources. Core communication and marketing messages invite people from diverse backgrounds to come together to explore issues, share ideas, and expand knowledge. This mission is supported by high quality programs and services for both campus and city community audiences.

The King Library sits in the heart of the high-tech Silicon Valley - worldwide headquarters for Adobe Systems, eBay, Cisco Systems, Apple Computers, Yahoo, and Google. At the opening ceremony, local dignitaries praised the joint library as reflective of the innovative and entrepreneurial spirit typical of the Valley. In the ensuing years, however, the organization's continued reliance on traditional technologies and unexamined processes rendered it unable to satisfactorily respond to unanticipated service opportunities.

Therefore, in 2006, a joint library 'virtual services' task force initiated a Web 2.0 educational initiative that enabled staff members to develop new Web 2.0 competencies. Following delivery of this 15-week course, a library wide strategic direction setting effort was initiated. One of several task forces examined workplace communication, decision making, and planning structures, systems, and processes. Members recognized that maintaining a nimble, responsive organization required more timely and transparent information sharing and decision making. As was characteristic of all the task forces' work plans, proficiency in and appreciation for lifelong learning was purposefully advanced.

The lifelong learning construct represents a core value in the founding mission of this joint university-city library, as expressed thusly on the San Jose Library website (2007):

- Enrich lives by fostering lifelong learning and ensuring that every member of the community has access to a vast array of ideas and information, and
- Provide students, instructors, and the community access to the information they need for educational and personal growth throughout their lives.

LITERATURE REVIEW

In a seminal book on lifelong learning, Candy (1991) states that lifelong learning takes, as one of its principal aims, equipping people with skills and competencies required to continue their own self-education beyond the end of formal schooling. These capabilities support lifelong “learning whereby people with shared interests are able to communicate with, learn from and contribute to learning by others,” enabling “people to take control of their own learning” (Candy, 2004, p311). Requisite proficiencies encompass both cognitive and affective domains: recognition of the need for lifelong learning (affective domain) and ability to engage in lifelong learning (cognitive domain), as detailed in Bloom’s taxonomy (Bloom, 1984; Bloom, Karthwohl, and Massia, 1984).

In groundbreaking work, Bruce (1997a, 1997b) advances another critical dimension of lifelong learning in recognizing the importance of providing relational context to maximize the learning potential of information encounters. She connects individual and group learning to organizational learning in terms that both further experiential relationships with a topic and also advance understanding. It follows, then, that appropriately contextualized information encounters can advance workplace learning which exercises information literacy capabilities transferable to lifelong learning. A small but important literature has connected the furtherance of relational information literacy in the classroom with lifelong learning (e.g., Mourtos, 2003). In this paper, we suppose that relational information literacy experiences in the workplace can likewise advance lifelong learning proficiencies.

Workplace information literacy is a collaborative, socio-cultural practice (Bruce, 1999) within a context specific environment consisting of a ‘constellation of skills, practices and processes’ (Lloyd, 2006). It focuses on the construction of shared professional meanings and the development of communal outcomes through situated engagement with information (Lloyd, 2005b). When cultivated at both group and organizational levels, intentional thinking processes can enable connecting information sources and workplace practices to advance information usage proficiencies (Lloyd, 2005a; Somerville, Huston, and Mirijamdotter, 2005). Over time and with practice, as collective competencies become integrated into the workplace culture (Lloyd, 2005a; Somerville, Schader, and Huston, 2005), nimble, sustained responsiveness produces capacity to dynamically respond to new circumstances (Davis and

Somerville, 2006; Somerville and Howard, in press).

This is especially so when researchers aim to create organizational change while simultaneously studying it (Checkland and Holwell, 1998). Our results suggest that this action research approach can also fortify individuals’ lifelong self-education.

Research approach

In preparation for this organizational initiative, a ‘virtual services’ task force initiated an online workplace education program in 2006. Developed by Helene Blowers (Blowers and Reed, 2007), the Learning 2.0 (<http://plcmcl2-about.blogspot.com/2006/08/about-learning-20-project.html#contact>) course introduced over one hundred city and university library staff members to twenty-three Web 2.0 tools (Somerville, 2007; Somerville and Nino, 2007). Course learning outcomes intended to prepare participants to exercise 21st Century information and communication technology (ICT) competences (Somerville, Smith, and Smith, in press) that satisfy workplace requirements as well as enable civic engagement and further education.

Through online evaluations of King Library’s customized Learning 2.0 initiative (<http://sjlibrary23.blogspot.com/>), librarian, administrator, and staff participants reported that the process of completing the “23 things” modules enabled conversance with the tools and technologies that are changing the way that people around the globe are accessing and communicating information. These online survey results also confirmed employees’ interest in using these tools to improve organizational communication, decision making, and planning.

In preparation, participants began to conduct Web 2.0-enabled pilot projects. For instance, several library groups initiated departmental blogs so members could maintain current awareness rather than waiting for (mediated) Intranet postings of meeting minutes and other unit communications. In addition, wikis were developed to share information, clarify goals, and consider actions – in the recognition that this technology enables easy access and ready editing. Knowing this, planning teams employed wikis to enable staff members to post and review information (Kendall, Nino, and Staley, in press) during strategic planning activities focused on such topics as organizational learning and professional development.

Early project success suggested the potential for using Web 2.0 tools to share information and

cultivate understanding. Therefore, a joint library task force was charged with investigating how to apply these technologies to improve merged decision making, problem solving, and strategic planning activities.

In framing their initial applied research focus, task force members asked: What are the issues and roadblocks between where we are now and where we need to be in order to better communicate, decide, and plan?

During the course of their explorations, task force members purposefully advanced their relational information literacy, as embodied in the Australian and New Zealand Information Literacy Framework. In an iterative fashion, they refined their research question(s), identified authoritative sources, and evaluated and organized information for the purpose of communicating findings that inform and influence. Their success prompted library leaders to continue constituting working groups to explore topics of strategic organizational importance and thereby further organizational effectiveness concurrent with organizational capacity. Throughout, dialogue and reflection enhance information gathering, assessment, and reporting in this evolving, and increasingly embedded, King Library workplace learning approach.

Research Results

As the second implementation year concludes, there is ample evidence of substantial and sustainable organizational learning. Employees increasingly use an integrated framework for information literacy which situates decision making within progressively evolving contexts, oftentimes aided by appropriate technologies. Employees express increasingly more sophisticated appreciation of information sources, information use, problem solving, and information management. From an affective perspective (Bloom et al., 1984), this learning can be understood as reflecting movement from levels 1 to 5 – receiving, responding, valuing, organizing, and characterizing. Similarly, workplace information literacy skills – demonstrated by situated questions and contextualized interpretations – are fortified by enhanced cognitive competences (Bloom, 1984) which supports evidence-based deliberations reflecting knowledge, comprehension, application, analysis, synthesis, and evaluation.

These multifaceted lifelong learning outcomes have also informed both structural and process improvements for communication, decision making, and planning improvements. In

acknowledging that ‘information literate people are engaged, enabled, enriched, and embodied by social, procedural, and physical information that constitutes an information universe’ (Lloyd, 2004), a ‘master blog’ communications system was designed. Now under development, this Web 2.0-enabled system will ensure abundant information access for subsequent ‘sense making’ experiences at the unit level. Throughout, workplace learners anticipate engaging with and drawing meaning from an ever growing variety of information sources (Lloyd, 2006).

CONCLUDING REFLECTIONS

Lifelong learning provides an “enormous potential to communicate, to pursue passions and interest” (Candy, 2004, p.310). The King Library initiative aims to simultaneously advance strategic organizational directions, concurrent with cultivating workplace information. Structure and process improvements fortified by Web 2.0 communication tools now promise to further the depth and breadth of information exchange, enriched by face-to-face dialogue, reflection, and deliberation. These workplace changes aim to both enrich collective capacity for making service improvements and also cultivate individual capability for lifelong learning endeavors.

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FACTORS INFLUENCING WORKPLACE LEARNING AMONG SCHOOL TEACHERS

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ABSTRACT

The study investigates how a teacher's personality and his perception of school as a learning organization contribute to the teacher's engagement in workplace learning. A covariance structural analysis shows that teacher personality, which in this study includes the notions of conscientiousness and extraversion, and their perception of school as a learning organization are significant predictors of their involvement in workplace learning.

KEYWORDS

workplace learning – personality (¹NEO-FFI) –
learning organization – teachers

INTRODUCTION

Workplace learning has become an increasingly important concept underlying the practice of lifelong learning among workers. Authors of the workplace learning literature, such as, Engstrom (1999) and Lave and Wenger (1991) have always viewed formal education as an inadequate conception of learning as only a limited number of working people are able to participate in it. This view of formal education appears to apply also in the case of teachers in Malaysia, because the allocated budget and opportunities for teachers to further their studies or to attend off-site training are very limited. This is an endemic situation, experienced by teachers and other workers in general – the need for learning exceeds the opportunity for formal learning. Thus, researchers began to seek for better ways of improving teachers' learning by steering away from the traditional concept of staff development, to a more participative approach to learning, which focuses more on the way workers are given the opportunity to learn through engaging in activities at their workplaces (Billett, 2001), or similarly, in communities of practice (Lave & Wenger, 1991). By doing so, the researchers are not only focused on the individual learner, but are also concerned about the social and cultural aspects of learning (Hodkinson & Hodkinson, 2005).

LITERATURE REVIEW

Workplace learning is premised upon two important key ideas: (i) workplace learning is ubiquitous, it is seen as an integral part of workplace practices (Lave & Wenger, 1991; Engstrom, 2001; Billett, 2002); and, (ii) workplace learning is part of the social and cultural process (Hodkinson & Hodkinson, 2005). Taking a position similar to that of Billett (2001) and Beckett and Hager (2000), we reject

the notion that this type of learning is regarded as being inferior compared to the kind of learning in the formal educational context. In the present study, workplace learning includes either formal or informal learning activities.

The inclusion of formal learning (particularly in-service training or courses) in our conception is largely due to the fact that in the context of teacher's workplace learning in Malaysia, little is known about the contribution of either formal or informal workplace learning; thus, excluding either category of learning might not clearly portray the actual workplace learning experience among teachers in this country.

On the other hand, by omitting incidental learning, which is also a type of workplace learning (Marsick & Watkins, 1990), the present study expects that the measurement of involvement in workplace learning activities would not be too problematic because it deals a lot more with explicit knowledge, as opposed to implicit, tacit knowledge.

To be more specific, the current research looks at the extent of learning effort that teachers invest in, in order to learn how to do their job in a better way. Teacher's workplace learning effort is examined by identifying the activities that teachers normally and intentionally engaged in, either individually or in groups. Learning often occurs when teachers and workers in general, collaborate with others during courses or training (Hodkinson & Hodkinson, 2005; Clarke, 2005), participate in group activities (Eraut, 2000; Cheetham & Chivers, 2001; Hodkinson & Hodkinson, 2005; Lohman, 2006), attend forums or meetings (Hodkinson & Hodkinson, 2005; Clarke, 2005), observe others or role-model (Cheetham & Chivers, 2001; Lohman, 2006; Clarke, 2005), work alongside experienced colleagues (Cheetham & Chivers, 2001), read and experiment (Lohman, 2006; Clarke, 2005), share resources (Lohman, 2006), tackle

challenging or new tasks (Hodkinson & Hodkinson, 2005; Eraut, 2000) and mentor, teach or train others (Cheetham & Chivers, 2001).

There are not many studies that attempt to identify the personality factors said to influence teacher's workplace involvement in workplace learning or lifelong learning activities. The lack of research investigating teacher personality factors that might influence engagement in workplace learning activities may be due to the assumption that knowledge about the personality of teachers cannot be a source of valuable information to educational institutions because the personality of a teacher or an adult in general, is difficult to change. This point of view can be easily countered because there is much empirical evidence which suggest that characteristics or personality of individuals can indeed be influenced by the context they are in (Jawahar & Carr, 2007; Tett & Burnett, 2003).

Hodkinson and Hodkinson (2004, 2005) found that teachers' dispositions, their experiences, prior knowledge and skills are related to the way they learn or take advantage of learning opportunities available in their workplaces. In addition, Lohman (2000, 2003) in her qualitative studies on teacher's workplace learning involvement, has identified four individual characteristics which she considers important in enhancing a teacher's engagement in informal workplace learning. The characteristics are initiative, self efficacy, commitment to lifelong learning and love of content area. In order to generalize these findings, Lohman (2006) further argued that the following personal characteristics relating to initiative, self-efficacy, love for learning and interest in the profession, will exert an influence on a teacher's participation in informal workplace learning activities. Doornbos, Bolhuis & Simons (2004) further added to the list of relevant individual factors when they found that a worker's experience of social integration (in other words, sociability), and perceived value of learning at work determine the extent of intentionality toward work-related learning.

To a certain extent, individuals who have initiative and are committed are generally conscientious people (although the converse is not true: those who are conscientious do not necessarily have initiative, and/or are committed as well). In addition, those who are sociable can also be labelled as being extravert. Very few studies analyzed the variable personality per se, in relation to workplace learning. Naquin and Holton (2002), for instance, found that conscientiousness and agreeableness are valid

predictors of motivation to improve work through learning (caveat: not actual engagement in workplace learning), mediated by work commitment. In addition, conscientiousness and extraversion are two personality factors which were found to be significant predictors of positive work behaviour (job performance) (Barrick & Mount, 1991; Barrick, Mount & Judge, 2001). Therefore, it is hypothesized that conscientiousness and extraversion are also valid predictors of yet another positive work behavior, engagement in workplace learning.

H₁: Teacher's personality influences teacher's engagement in workplace learning activities.

H_{1(a)}: Being highly conscientious positively influences teacher's engagement in workplace learning activities.

H_{1(b)}: Being highly extravert positively influences teacher's engagement in workplace learning activities.

With regard to the organizational impact, researchers have examined some factors that are found to relate to workplace learning, and came up with labels such as learning conditions (Skule, 2004), learning organizations (Marsick & Watkins, 2003), learning factors (Eraut, 2000), workplace environment and learning support (Clarke, 2005), and learning opportunities or affordances (Billet, 2001). Among the studies which have used teachers as a sample and claimed to show relationships between organizational factors and teacher's participation in workplace learning include; job condition and proximity to colleague's work area (Lohman, 2006); system recognition and reward, resources and support (Retallick, 1999) and departmental culture (Hodkinson and Hodkinson, 2004). Other than that, school culture (Day, 1999; Harris, 2001), collaborative culture (Hargreaves, 1992), norm of continuous school improvement, norm of teamwork and norm of valuing teacher competency (Gaziel, 2001). These are all important factors in explaining teacher development and effectiveness, for they contain elements of continuous learning.

The reviews on school culture (Maslowski, 2005) and on school climate (Hoy, Hoffman, Sabo & Bliss, 1996) have found that the aspects that are usually included in the measurements of these constructs are teacher collegiality and teamwork, principal leadership, teacher autonomy, networking at all levels and teacher professionalism. Most of these dimensions of the school culture and the school climate are similar to the dimensions of a learning organization as proposed by Watkins and Marsick (1993). Therefore, based on the findings of previous

studies, the present research postulates that a teacher's perception of school as a learning organization will influence his or her development activities, including the effort in upgrading knowledge and skills, via learning in the workplace.

H₂: A teacher's perception of school as a learning organization positively influences the teacher's engagement in workplace learning activities.

METHODOLOGY

This is a correlational study which utilizes a survey method. It involves the gathering of cross-sectional data to investigate the roles of personality and the perception of school as a learning organization, on teacher's workplace learning. The unit of analysis for this study is the secondary school teachers in Kedah, one of the states in Malaysia. The sample consists of 66.2 % female (N=86) and 33.8% male (N=34). Most of them (88.5%) have a Bachelor's Degree as the highest educational attainment. The mean age and teaching experience of the sample are 38 years and 6 years, respectively.

The questionnaire comprises 62 items, divided into four sections. The first section measures teacher personality – conscientiousness (12 items) and extraversion (12 items), using the NEO-FFI¹⁶ (Costa & McCrae, 1992). A conscientious person is one who is responsible, efficient, organized, productive, thorough, achievement-oriented, self-disciplined and well-informed; whereas an extravert person is one who is approachable, sociable, friendly, lively, optimistic and energetic. These two constructs are considered in a broad manner, in that the facets that underlie each constructs are not truly observed separately or specifically.

The second section, perception of school as a learning organization (21 items), was adapted from the short version of the Dimensions of Learning Organization Questionnaire (DLOQ) by Marsick and Watkins (2003). This instrument is adapted to measure the perception of teachers toward the school as having (or not having) the environment for learning which is embedded within the people, system and structure of the school, so as to direct the school toward continuous learning effort and improvement, similar to that of the culture of a learning

organization. Although the DLOQ measures a multidimensional (seven-dimensional) construct of the learning organisation, in this particular study, the researchers focus on the composite score of the seven dimensions in this latent construct, and how it relates to the other constructs in the SEM (Structural Equation Modelling) model proposed. The final construct measured is on teacher's engagement in workplace learning activities (13 items). The majority of the items (8 items) are adapted from Lohman's (2006) quantitative study, whereas the remaining 5 items are constructed based on several other studies on teacher's workplace learning (see, Clarke, 2005; Hodgkinson and Hodgkinson, 2005; Cheetham and Chivers, 2001; Ebraut, 2000). All items (except for the demographics) are measured using a five-point likert scale type of response, ranging from 1 for "strongly disagree" to 5 for "strongly agree".

Since the sample size of this study is rather small, it is more appropriate that the items be analysed in parcels instead of individually. Use of item parceling in SEM is a common practice (Bandalos, 2002; Bandalos & Finney, 2001) because it results in fewer parameter estimations which then create a more optimal variable to sample size ratio (Bogazzi & Edwards, 1998). Therefore, in order to achieve greater stability in parameter estimates, the items for each personality factor are bundled into three 4-item parcels; the items for perception of school as learning organization are bundled into seven 3-item parcels; and, the items for workplace learning are bundled into two 4-item parcels and one 5-item parcel. This results in 16 item parcels or also known as indicators, which are more manageable and thus, reduces problems in convergence when using individual items (Little, Cunningham, Shahar & Widaman, 2002).

RESULTS AND DISCUSSION

Measurement Model

Using an *a priori* approach, all the 16 item parcels were subjected to confirmatory factor analysis (CFA) via AMOS version 7.0 (Arbuckle, 2007) to test the fitness of the measurement model. The factor loadings range from 0.63 to 0.93 and are all statistically significant and positive, thus providing evidence of adequate convergent validity of the constructs (Bogazzi & Yi, 1991). In terms of discriminant validity, disattenuated correlations between constructs range from 0.14 (between personality and perception of school as a learning organization) to 0.76 (between personality and workplace learning), indicating that the constructs are correlated but remain orthogonal. This measurement model is further enhanced

¹⁶ Adapted and reproduced with special permission from the Publisher, Psychological Assessment Resource, Inc., 16204 North Florida Avenue, Lutz, Florida 33549, from the NEO Five-Factor Inventory by Paul T. Costa Jr., PhD and Robert R. McCrae, PhD, Copyright 1978, 1985, 1989, 1991, 2003 by PAR, Inc.

with evidence of good model fit when the indices are observed – normed fit index (NFI) = 0.87, Tucker-Lewis index (TLI) = 0.92, comparative fit index (CFI) = 0.94, root mean square error of approximation (RMSEA) = 0.07 and CMIN/DF = 1.69. Values of less than .08 for RMSEA, less than 3.0 for CMIN/DF and close to 1.0 or .90 and above for other indices listed above reflect reasonably good fitting models (Brown & Cudeck, 1993). Cronbach alpha for each construct is 0.74 for extraversion, 0.80 for conscientiousness, 0.92 for perception of school

as a learning organization and 0.90 for engagement in workplace learning activities.

Test of hypotheses and the structural equation model

Following CFA (Confirmatory factor Analysis), the theoretical model and hypotheses are then tested for fitness with the data. Figure 1 shows the nomological network or the hypothesized structural model with the relevant parameter estimates.

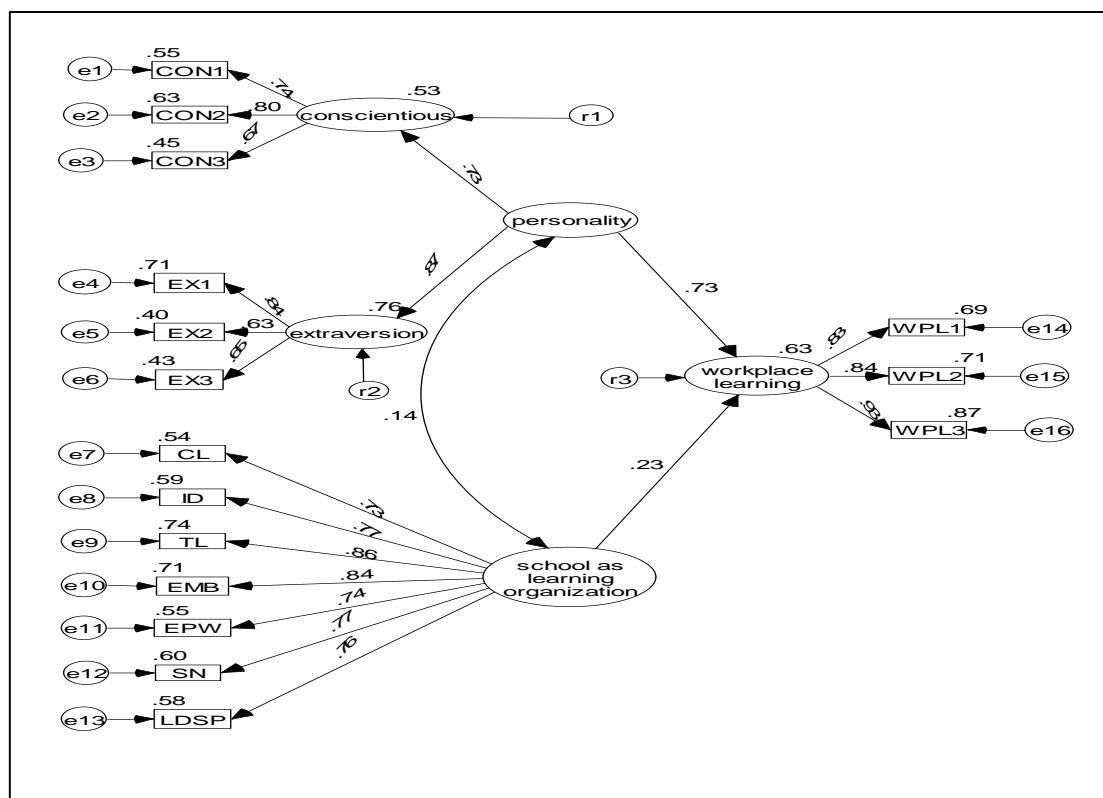


Figure 1: Parameter estimates for the theoretical model
(NFI = 0.87, TLI = 0.92, CFI = 0.94, RMSEA = 0.07 and CMIN/DF = 1.69)

The summary of fit indices (NFI = 0.87, TLI = 0.92, CFI = 0.94, RMSEA = 0.07 and CMIN/DF = 1.69) indicate that good model fit was established. In addition, the path coefficient estimates are all significant ($p < 0.05$). There is a statistically significant strong link between personality and workplace learning ($\beta = 0.73$, $t = 5.00$), providing support for Hypothesis 1. Since the path coefficients for the personality domain in the hierarchical model are also strong, with $\beta = 0.73$ and $\beta = 0.87$ for conscientiousness and extraversion respectively, Hypothesis 1(a) and Hypothesis 1(b) are indirectly supported too. With regard to the link between perceived school as a learning organization and workplace learning, the analysis shows that there is also

significant link between them ($\beta = 0.23$, $t = 2.79$), lending support for Hypothesis 2. The total variance explained by personality and perception of school as learning organization on engagement in workplace learning is 63 percent.

The findings suggest an important role for personality and perception of school as a learning organization in predicting positive effort towards continuous learning in the workplace. Personality, by far, is a substantially more important factor than perception of school as a learning organization in determining a teacher's engagement in workplace learning activities. In this study, the personality domain was presented as being made up of two factors:

conscientiousness and extraversion, factors which have been repeatedly found to be significant predictors of workplace behaviour such as performance (Barrick & Mount, 1991; Barrick, Mount & Judge, 2001). The research presented here provides further evidence for the relevance of these personality factors in explaining engagement in workplace learning. Simultaneously, it provides evidence for previous findings concerning the relationships between teacher individual dispositions such as initiative and commitment (somewhat similar to conscientiousness) and sociability (similar to extraversion), and workplace learning (Hodkinson & Hodkinson, 2005; Lohman, 2003, 2006).

A teacher's perception of school as a learning organization is a significant contributor to their involvement in workplace learning. In the context of this research, the school is perceived as a learning organization if the teachers believe that it emphasizes continuous learning effort, encourages inquiry and dialogues, promotes networking within and beyond the school members, develops an embedded system that supports workplace learning, and also supports team learning and collaborative culture (Marsick & Watkins, 2003; Watkins & Marsick, 1993). In addition, teachers should also perceive that the school leader practices empowerment, encourages knowledge sharing and supports workplace learning and lifelong learning. The extent to which teachers perceive whether or not the school possesses the above elements of a learning organization plays a significant role in determining a teacher's continuous learning in the workplace.

CONCLUSION

Teachers need to continuously upgrade their knowledge and skills to keep themselves updated with the latest educational developments in pedagogical approaches and educational technology. This study has contributed to previous research in that it highlights that a teacher's personality, and his/her perceptions of the school as a learning organization are important factors that contribute towards a teacher's workplace learning. Therefore, teacher personality traits should be given increased attention, be it in screening potential candidates for teacher training programs or in recruiting already trained in-service teachers. However, personality should not be used as the sole means for predicting workplace behaviors because there is the risk of dishonesty in providing personality profiles due to the social desirability factor.

With regard to organizational factors, rather than focusing solely on tangible factors such as monetary rewards, a school that is perceived as a learning organization by teachers has an impact on whether or not the teachers will be actively engaged in workplace learning. To summarize, good teachers are those who will engage in continuous learning throughout their careers so as to continually improve their workplace performance. Both a teacher's personality and their perceptions of their school as a learning organization are substantial for generating positive workplace behavior such as workplace learning or lifelong learning.

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LIVING AND LEARNING: COMMUNITIES OF PRACTICE RE-ENGAGING YOUNG MOTHERS THROUGH VOCATIONAL EDUCATION

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ABSTRACT

This paper explores a young mother's emerging sense of self, through the sociality of her engagement with vocational education, within a local community of practice. Formal and informal learning experiences, coupled with ongoing support, are key features in constructing her identity and enhancing future prospects.

KEYWORDS

identity – communities of practice – learning society

INTRODUCTION

Young, single mothers may lack basic parenting skills and may also become disengaged from mainstream education. Their immediate concerns, which centre on the welfare of the baby, may be exacerbated with feelings of isolation from their peers and that they are being 'left behind'. These conflicting demands and perceptions may also challenge their emerging sense of identity. In the long-term, these factors could lead to poor employment prospects, with few options available (Field, 2006). In 2007, a small research project was conducted with young, single mothers, who were undertaking a parenting programme in a community-based childcare facility. Initially, the focus of the research project was on the ways participants viewed the acquisition of parenting skills, leading to an accredited statement of attainment; and, what participants planned to do vocationally when the course ceased. As the project progressed, aspects of identity and learning within a community of practice (Wenger, 1998), as part of the larger learning society (Hager, 2001), became the focus of the research. Informal discussions, observations, and semi-formal interviews with participants were the main forms of data collection and verbal and written feedback was also sought from the programme facilitator. This paper employs a case study methodology to examine factors that have contributed to providing positive learning experiences for one young mother and how her expectations and sense of self (her identity) have been shaped and constructed, as she 'lives and learns', within the sociality of a local community of practice.

LITERATURE REVIEW

The interconnectedness of formal and informal learning experiences

Rather than viewing learning as something that is the exclusive domain of formal education,

lifelong learning is a process of acquiring knowledge and/or skills throughout life via education, training, work and general life experience (OECD, 1996; Kearns et al., 1999). This is a broad definition of lifelong learning, which directs attention to a wide range of social, economic, psychological and community roles, as learning occurs horizontally (as well as vertically), in every aspect of life (Johnston, 2000). For the majority of adults, learning is significantly shaped within social and communal contexts, including (but not limited to) workplaces, families, education facilities and sporting groups. Concomitantly, the need for continuous learning and encouragement to learn throughout one's life is increasing, on a variety of fronts. Hager (2001) promotes a 'maximalist' view of lifelong learning, as a learning society where learning (formal and informal) takes place in any type of setting. Jarvis furthers this notion of the learning society as one '... in which people are enabled, even encouraged, to learn, but they have to take responsibility for that learning' (2007, p. 100). For young single mothers, with minimal or no qualifications and only basic formal education, being responsible for and self-directed in, their own learning, can be a daunting prospect, or indeed one that does not feature in their thinking at all. Often, the learning they engage in is ad hoc and revolves around immediate, day-to-day caring of children and management of the household. In this context, lifelong learning could be perceived as a mechanism for exclusion and control, as those who have the least level of skill and the ability to update, are less likely to find paid employment (Field, 2006). Whilst formal learning is planned and largely explicit, informal learning is often unplanned, much less predictable and is often tacit (implied) and highly contextualized (Hager, 2001). Yet, informal learning experiences can also be powerful and even life-changing. Wenger's notion of communities of practice, where groups of people share a concern for something and learn how to do it better as they interact regularly (1998), lends itself to developing the skills, knowledge and employability of young mothers, when they are

provided with the opportunity to interact informally and share their experiences with other mothers; and, additionally, to engage in formal learning opportunities, in a structured learning programme, linked to recognized competencies. In this situation, there is an interconnectedness and interdependence between formal and informal learning and the setting in which it transpires. Crucial characteristics of a community of practice are that: it has an identity which is defined by a shared domain of interest; the community engages in joint activities and discussions, where members help one another by sharing information; and, participants engage in a shared repertoire of practice (Wenger, 1998; 2008). By providing socially-located opportunities for young mothers to share their parenting experiences, enhance their learning and knowledge-base and engage in reflective and personal development activities, as well as seeking formal skills in aspects of parenting, a local community of practice has the capacity to contribute significantly to constructing the identities and self-perceptions of young mothers, as well as enhancing future prospects (Department for children, schools and families, 2007).

Lifelong learning and identity

A social constructionist perspective of identity formation links aspects of self and identity, with society and community (for example, Wenger, 1998; Tennant, 1999), as individuals come to understand themselves as separate entities and also as part of a larger social structure (Strauss, 1959; Brown, 1998). The concept of lifelong learning promotes a humanistic emphasis, as it encourages the holistic development and autonomy of learners. Lifelong learning involves the whole person experiencing social situations which integrate into the person's sense of self (their identity) '... resulting in a continually changing (or more experienced) person' (Jarvis, 2007, p. 1). Identity is an individual's link with others and their own unique development and there is a perceived connection between something in the individual's core, with an essential aspect of a group's inner coherence (Erikson, 1959). One's identity is not created in isolation, but '... is formed by social processes ... (and) is maintained, modified, or even reshaped by social relations' (Berger & Luckmann, 1971, p. 194). For young mothers engaging in formal and informal learning activities within a local community of practice, their identities are being shaped by the sociality of their learning and by their ongoing interactions with their children, their facilitator and with one another. The significance of the sociality of their learning (formal and informal)

in the construction of their identities, as part of the wider learning society, cannot be underestimated.

Identity and the sociality of learning

Our learning often occurs in a social context and the learning processes we engage in are affected by the relationships in which we function (Jarvis, 2007, p. 20). Similarly, Lave and Wenger (1991) connect identity (one's sense of 'self') with knowing and social membership. They perceive learning and a sense of identity as inseparable, as learners move from peripheral participation to more active participation, as part of social practice, when they learn from more experienced others and become fuller members of the community of practice (1991). Wenger (1998) also explores the concept of experience and social interpretation that occurs in communities of practice and the profound connections between identity and practice. He perceives identity and learning as a way of becoming, or changing, as we create personal histories within communities; and, he views issues of identity as inseparable from issues of practice, community and meaning (1998). From Wenger's perspective, there is not a separation between the social and the individual; rather, the two meld as the lived experience of identity, which recognizes its social character (1998). This is significant for this study because an individual's identity is seen as developing from and as part of, communities, rather than as a separate or private entity. The identities of the young mothers in this study are being shaped (constructed) through the interconnectedness of their shared experiences, including the formal acquisition of parenting skills, through informal discussions and from observing the childcare workers and their own children, within the childcare facility. A constructivist view of learning is concerned with how personal understanding or knowledge is formed, within a social or communal context (Vygotsky, 1978). Vygotsky's concept of the Zone of Proximal Development (ZPD), describes how learners utilize a social support system to facilitate independent problem-solving, through problem-solving in collaboration with more capable peers (1978). The ZPD depends on full social interaction and, the range of skills that can be developed, with guidance from experts or from peers, exceeds that which can be achieved alone. It can be rightly claimed, from a social constructionist viewpoint, that everyday learning is not isolated from social practice and that valuable knowledge construction occurs in the daily activities of learning communities (Lave & Wenger 1991; Wenger 1998). This paper will follow the activities of one young mother throughout the six-month parenting programme,

to explore how her identity has been constructed within her community of practice, as part of the broader learning society, through interconnected formal and informal, socially-located learning experiences.

METHODOLOGY

Between February and August, 2007, a regional New South Wales community college conducted a parenting programme for young, single mothers (based on a successful regional model), which ran for two days per week, over a six-month period. The parenting programme, managed by a community college programme coordinator and delivered by a formally trained and experienced childcare worker and training facilitator, was conducted in a community centre/childcare facility several kilometres from the community college. Three young women commenced the programme and formally studied four units from the Certificate III in Children's Services, including the units Promoting safety, well-being and welfare of children and Delivering activities to stimulate children's development. The young women also engaged in personal development and relaxation activities including meditation, yoga, journal writing and creative art. Cate (aged twenty-two) has two children, a five year old boy (at school) and a two year old girl. Her partner was due to return to the family in August, after a long absence. Angela (nineteen) has three children, aged three years, two years and eight months. Due to family issues, she left the programme in May, 2007. Elle (seventeen) gave birth to her first child, a girl, several weeks before the end of the programme. Whilst she was in attendance at most of the meetings, she was not included in the data gathering, as she was a minor and parental permission to participate in the research was not obtained. At the initial meeting with the mothers in March, 2007, I discussed the research project with them and explained that participation was voluntary and answered any queries. I gave the two older mothers plain-language statements, which outlined details of the research project and consent forms, which they read, signed and returned to me at the next meeting. Due to limiting factors of small participant numbers, unpredictable participant attendance and an age impediment for one mother, a qualitative methodology using a case study approach was employed (Merriam, 1988; Creswell, 1998), to examine factors that contributed to providing positive learning experiences for Cate, the twenty-two year old mother. I visited the childcare facility on six occasions over the six-month period of the programme. Informal discussions, observations and semi-formal interviews with Cate were the

main forms of data collection and verbal discussions (in person and by telephone) and written feedback, were conducted with the programme facilitator (Creswell, 1998). I took detailed notes of discussions/interviews and observations, transcribed notes, coded and reduced data and displayed data on matrices to search for patterns/themes. Discussions and email contact were undertaken with the programme coordinator, prior to and at the commencement of, the programme; and, a meeting was held in October, 2006 between the programme coordinator, representatives from community organizations and myself, to establish interest in and support for, the programme. Documentary evidence, including units from the Children's Services Training Package and learning materials and assessment tasks for participants, was also accessed. Written permission to undertake the research was provided by the programme coordinator and pseudonyms were used for all participants, as well as the location of the study, to protect the anonymity of those involved.

RESULTS

The focus of the research project is on identity construction through learning (formally and informally) within a community of practice, as part of the wider learning society; and, how the parenting skills, outlook and self perceptions of Cate have evolved, during the course of the six-month parenting programme. Cate has experienced formal vocational learning in the programme by undertaking and completing units from a recognized Training Package. She has also developed and enhanced her parenting skills through the acquisition of a broad knowledge base, gained from formal study and through informal discussions with her training facilitator and observations of childcare workers in the childcare setting, as well as experiencing activities with her own child and other children, at the centre. Importantly, Cate has been using these skills outside the programme, at home. Cate has also accessed support from several community-based and not-for-profit services. The study of a Training Package unit on nutrition for young children has opened Cate's eyes, as 'I am now careful to monitor amounts and when (my daughter) is to eat. I now know how big a 'serving' is (and) have more of an understanding of what you need to do, to monitor types of food and the quantities'. Additionally, a unit on children's play and leisure has shown Cate 'about all types of play and cognitive skills and the way to set up play at home'. She has learnt 'to observe the children playing and to direct them to play areas. I role model play so my children can observe what they (are) to do'.

These skills are significant to this young mother, as she 'came here to learn and to be a better parent'. Her aspirations are to 'pass everything (in the course) and to be a better mum. That doesn't sound right! I don't know how to phrase it. I want more knowledge of how to raise my children'. Cate is also keen to find paid work and is cultivating friendships with a new group of people, whom she considers 'successful', including some of the childcare workers at the centre. She credits these new friends with influencing a change in her attitude 'as they make me want to succeed'. Having said this, Cate is very self-critical because 'I also feel like a hypocrite when I don't have a job either. You know what I mean?' Cate completed Year 11 at school, after having her first child at age sixteen. She then undertook TAFE studies in Business Services (Certificates II and III). Whilst she has never been in paid employment, she has had work experience in legal aid and in court procedures. Community support during the parenting programme has also assisted her to find a house to rent and she has accepted a position in the 'Brighter Futures' programme for two years (run through Mission Australia), which offers specialist support and counselling for parents with young children. Financial and practical advice is available to assist with further study and childcare, so she can continue with formal studies and also go to paid work. She was recommended to the programme by workers at the community/childcare centre, as well as approaching 'Brighter Futures' herself to ask about the programme '... if I hadn't been at this course I wouldn't have done it. I wouldn't have asked for help. I would have been too embarrassed'. Cate's attitude is now 'more mature' as she realizes that everyone needs help at some time in their life. Since receiving support through 'Brighter Futures', Cate 'really wants to further (her) interests in medical or legal reception (and) wants a job, like a traineeship, so I am learning on-the-job'. This would enable her to study for a qualification at night time. In an earlier interview, Cate's attitude was that 'as long as I can get paid work, it doesn't bother me what it is', though she was sure that 'doing this course is not where I want to be. I don't want to be a childcare worker (but) it is still good to learn'. Cate 'always attends (the course) and doesn't want to miss a session. (She has) only missed two days in four-and-a-half months'. Cate's plans are far-reaching and she is very positive about her prospects, though she concedes that her 'personal life' could get in the way of her plans. Since securing a rental house, she is keen to make a nice home for her children and for her partner, when he returns. Previously, she and her children were living in a variety of locations,

with friends who had rental housing. Jane, the programme facilitator, feels that Cate already had an innate desire to learn, rather than the childcare programme being a springboard for her wanting to learn. Cate feels that self-motivation is a key to her succeeding and 'I honestly think (some) people just have kids to stay at home'. Cate was not able to attend the final meeting arranged for late August, 2007, as her partner had just returned home after a lengthy absence.

DISCUSSION

This research project, though small in scale, supports the notion that learning within a community of practice (Lave & Wenger, 1991), through formal and informal learning opportunities and through sharing experiences with peers and experts (Vygotsky, 1978), has enhanced one young mother's parenting skills, learning opportunities, job aspirations and sense of self. Cate's experiences throughout the parenting programme are interconnected and inter-related, as she comes to understand aspects of herself (her identity), from a range of internal parenting programme experiences and external practice and support. Her formal learning in children's services has improved her skills as a mother and she has taken these skills beyond the learning environment, to practice them in her everyday life. Within her community of practice at the childcare facility, she has regularly shared a common interest, contributed to joint activities and discussions and has engaged in a shared repertoire of practice (Wenger, 1998). These are the very features that Wenger deems crucial to define what a community of practice is and does (Wenger, 2008). Furthermore, the sociality of Cate's learning experiences have integrated into her sense of self, as a more experienced person (Jarvis, 2007); and, to date, it is this sociality of formal and informal learning within her community of practice, that has shaped her identity, (Berger & Luckmann, 1971), into a more experienced and knowledgeable mother and person. These practices have given Cate the confidence to seek a job as a receptionist and perhaps to obtain a traineeship, so that she can 'learn and earn' on-the-job. The parenting programme has addressed both the tacit and dynamic aspects of knowledge creation and sharing, for example learning how to engage in play to develop her child's cognitive skills, as well as some of the more explicit aspects (Wenger, 2008), including the achievement of units of competency from a recognized Training Package qualification. A number of interconnecting factors associated with the parenting programme – formal learning, modelling from the facilitator and childcare workers, informal discussions, observations,

practice in the home and external financial and emotional support from agencies – have brought about real change in her life (Department for children, schools and families, 2007) and in her perception of self (her emerging identity). As an active member of the learning society (Hager, 2001), Cate has achieved a level of skill, knowledge and understanding that permeates her life. With continued, long-term support, access to a job and childcare and additional formal learning, Cate has the capacity to effect lasting change, in her life.

CONCLUSION

The initial findings of this small-scale research project have provided some insights into how the emerging identity of one young mother is constructed through the interconnectedness of learning (formal and informal) within a community of practice, coupled with external and ongoing support, to become a contributing member of the learning society. All of these factors inter-relate with one another and it is through exposure to a community of practice, with common interests and a sharing of knowledge, skills and understanding from a variety of sources, that the identity of one mother is being shaped. The findings from this project may enhance understanding about the ways in which young, single mothers 'live and learn' and can be supported to cultivate socially- and vocationally-located learning opportunities, to meet immediate goals and future aspirations, as active participants of the learning society. A recommendation for future research is to consider ways that young mothers could be encouraged to engage in formal learning and how a learning society might accommodate this.

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STEPPING OFF INTO THE UNKNOWN: FRAMING EXTERNAL FUTURES FOR A SUCCESSFUL PREPARATORY PROGRAM

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ABSTRACT

This paper considers the ways in which the external cohort of Central Queensland University's (CQU's) STEPS preparatory program act as agents of change. Through the online discussion forum with appropriate lecturer support, the students practise self-reflection and generate a space to challenge the institutional rigidity of the university.

KEYWORDS

transformational learning; online learning; discussion boards

INTRODUCTION AND CONTEXT

The CQU STEPS program began as a federal government initiative in 1986 to provide a pathway in tertiary education for adult learners in the Central Queensland area. It operates in a context in which the region has a comparatively low proportion of residents with higher education qualifications; figures from the 2001 census, for example, indicate that 4.8 percent of adults in the Fitzroy Statistical Region covering much of Central Queensland were tertiary graduates, compared with a national average of 8.2 percent (McConachie & Simpson, 2003). While the program has been very successful in facilitating successful outcomes for its cohort, social and economic changes over recent years, including the employment opportunities offered by mines in the Bowen Basin region of Central Queensland, have caused the STEPS program to look for ways to supplement its on-campus offerings. One initiative has been the development of the external STEPS program offered using a blended learning approach including both print materials and online communication strategies (Sturges, 2007).

The multimodal delivery approach adopted in the design and delivery of this external program includes the use of online asynchronous text-based discussion boards to allow communications between students enrolled in the course. Although there was some use of the boards for teacher led discussion of course content, the great majority of the interactions were student initiated. It is worth mentioning that, because of the nature of the program as an external offering, students had little or no physical contact with each other or the lecturers. For this reason, the discussion boards provided one of the opportunities for peer interactions.

External study offers considerable challenges to all students, but for the adults who comprise the STEPS cohort, who in some cases have had unfortunate memories of previous encounters with formal education; these challenges can seem daunting indeed. Accordingly, there is interest in the way in which this cohort responds to these challenges and develops support mechanisms and resilience to secure their pathway into undergraduate study. We argue that fostering a culture of self-reflection along with challenging institutional boundaries and hierarchies helps these students in negotiating this pathway.

CONCEPTUAL BACKGROUND

The nature of adult learning is complex and its aims range from acquiring knowledge to personal and social transformation. The relevance of disciplinary knowledge has been emphasised in content-driven theories whereas the process of change relies on educational contexts and the role of the teacher as facilitator (Foley, 2000). As Freire declares, the efforts of a humanist educator "must coincide with those of the students to engage in critical thinking and the quest for mutual humanization" (Freire, 2003, p. 60). Such humanist values significantly inform the principles framing the STEPS program. The STEPS Work program (n.d., p. 6) defines learning as making meaning which "requires far more than just acquiring information". The process of making meaning is a shared experience, as described by Vygotsky (1978). The social dimension of learning is based on personal knowledge and experience. According to the STEPS Work Program (n.d., p. 4): "Student prior knowledge and experience are valued and...they are also encouraged to be teachers." That is, within the program there are opportunities for students to draw on their prior knowledge and life experiences and take on the role of a teacher sharing these insights with others. This is achieved through a variety of activities including discussion and peer tutoring. Further, students are encouraged to develop a metalanguage to reflect on their own learning

styles and temperament types, enabling them to gain autonomy in respect of the learning process. When adult learning is student-centred, it emphasises self-conception and development, as explained by Rogers (1956, as cited in Foley, 2000, p. 14). In this focus on self, adult learning can support students' growth. It allows them to be actively engaged in their learning and thus "resolve the teacher-student contradiction" (Freire, 2003, p. 60), whereby the teacher's inherent authority can tend to work against the development of the students' critical consciousness. It also assists students with the change in perceptions of themselves as well as their own environment. This has been manifest in one non-assessable part of the curriculum, where students are exposed to theories of archetypal psychology and Joseph Campbell's (1993) notion of the hero's journey as a means of making sense of their own path through the program. Thus they, as Pearson (1998, p. 5) stated, "are not only people who grow and change and take their journeys; they also are agents of change." Evident in this sense of personal transformation is development in students' emotional awareness and reflexive capacity which is a prerequisite for growth and allows for deep and authentic communication.

Another integral factor shaping students' experience of the learning environment is the level of power and the way it saturates the group relationships. Based on the STEPS teaching philosophy, lecturers and students participate in group discussions reflecting minor differences in the power held by the members. As explained by Hofstede (1997), in low-power-distance groups, power is more or less evenly distributed among the group members. Such an environment raises the importance of developing equality and assertiveness of all members (Borden, 1991, cited in DeVito, 2006). Therefore, the presence of surveillance mechanisms and "hierarchised observation", as described by Foucault (1979, p. 176), which characterises certain institutional settings, here plays a less significant role in informing relations between the different parties involved in the STEPS program: lecturers, students and administrators.

At the same time, STEPS students and staff are called upon to negotiate institutional rigidity, which is a concept described in a different context by Foucault (1965). This means that the less formalised peer support that STEPS students are encouraged to offer one another can be taken over and risks being supplanted by formal institutional processes. Various professional services within university share this function. At Central Queensland University (CQU), both internal and external students are offered support from the Ombudsman, counsellors, career

advisers. These professionals deal with personal problems as well as issues related to studies. However, these services are designed to service the needs of the few, not the majority of students. Faced with such challenges, the importance of peer support among STEPS students in demonstrating the values of conversation and community and challenging certain formalised processes and hierarchies within the institution is integral in fashioning students as interdependent operators and agents of change, both of themselves and others.

In empowering students as 'agents of change', we contend that they are to defy the learned helplessness, as described by Seligman (2006), which may have hindered their progress in the past. In addition, the students would at least in part challenge the institutional rigidity and processes of surveillance that Foucault sees as being characteristic of formal educational structures. Using the online discussion forum within the external program, it is possible to explore the ways in which students adopt different roles, exercise self-reflection and exhibit forms of pastoral care. In doing so, they undergo a distinctive process of transformation that shapes their lifelong learning futures.

METHOD

In order to investigate the interactions between course participants, both students and lecturers, the authors have applied discourse analysis of the text messages posted to the public areas of the online courses associated with the program in 2007 (See Danaher, McDougall, Sturges & Todorovic, 2008 forthcoming). For the purposes of the current paper, we have focussed on activity in just one of the four courses as an example of the way that relationships developed. In this course, all students and lecturers had access to post, read and reply to messages on the discussion board tool. In addition, the primary lecturer was able to post announcements, messages that were designed to be read by the students but were not subject to reply. A total of 220 students were enrolled in the STEPS program in the period under discussion, but only 65 posted messages to the discussion boards. There may also have been an additional number of unknown students who were influenced by the discussion boards by reading the messages but did not contribute messages and so were not counted.

This level of participation reflects the fact that use of the boards was not compulsory and did not feature in any assessment tasks. So participation was completely at the discretion of the individual student. For this reason, it could be argued that those students who did engage with this form of communication did so because they found it

intrinsically rewarding. There was still a significant amount of activity with over 800 messages being sent to the boards. For ethical reasons, our analysis of the texts was limited to 452 messages from 15 students who had granted permission for their messages to be analysed and quoted. In seeking their permission, it was made clear to the students that they were not required to post any additional messages or messages on particular topics, or change their participation in the discussion boards in any way. Permissions were also obtained from the lecturers involved in the courses. Where the participants' words have been quoted, names have been changed to ensure anonymity.

DISCUSSION

In investigating the roles taken on by different participants in the class, it is important to consider the lecturer. For an external course such as this any interaction between students in the course is dependent on the actions of the lecturer in providing the means for such communications as well as setting the modality. In this case, the lecturer ensured that a communications tool was available that allowed students to initiate discussions and create their own group structures. This is communicated to the students in the lecturer's first announcement to the class.

I will pop in from time to time to see how the discussion is going but basically it is your area to ask questions, provide support for each other, get to know one another ...
(Pat)

In this message, the lecturer Pat establishes the democratic nature of the medium explicitly by naming the discussion boards as "your area". Students were reassured that the teacher's presence would not be essential in the manner of conducting observation of the discussions. The power differential is further flattened by the informal nature of her language in this and other messages.

However, this is clearly a public space which is subject to the institutional surveillance suggested by Foucault. At times this is commented on by the participants.

Gosh I hope we don't lose marks for being foolish because at times we have been downright crazy. (Amy)

However, the language and context of such messages suggest that this the students do not see this as an oppressive presence. They even comment on the freedom that is available to them.

As time goes on I have found that I have gotten more relaxed and nothing seems to be taboo. (Amy)

They also evince a very relaxed, friendly attitude towards the lecturer, speaking to her as an equal.

Yes Pat, you have a wonderful trip, as you like to say 'You Go Girl' (Leigh)

In establishing the expectation that students will take an active role as shapers of the online community, Pat is encouraging them to adopt many of the characteristics of teachers, as suggested in the Program philosophy (STEPS Work program, n.d., p. 4)). This means encouraging them to become active in the discipline content of the course:

It is your area ... to contribute to scholarly discussions about the content in the course.
(Pat)

Many postings show students both seeking and offering information from each other about the content of the course. For example, as Rhonda comments:

I started to copy the pages ... and then decided on a verbatim cheat sheet which I did. Then thought a few of you might find it handy as well, so here it is attached.

Students were also encouraged to support other students in personal and social aspects of their life as students.

This discussion board makes learning at a distance seem less isolating and helps you to feel like you are more a part of a whole class and at the moment there are 220 of you all feeling a little overwhelmed together. You are not in this alone and this space helps to remind you of that. (Pat)

The students can be seen to accept this role, and there are many examples of students offering encouragement and emotional support as well as information and tips for achieving success.

Good luck to everyone, and remember to take one step at a time. (Cass)

They also repeatedly acknowledge the sense of community that developed in this group.

I'm glad I'm not the only one feeling bewildered, but I'm sure we will all get there together. (Rhonda)

As the academic year progresses, the student postings start to show an awareness of the value of the discussion board interactions.

Thank goodness we will have this space to kick along our conversations because I feel that I will need it ... I am really surprised how much I have come to depend on the DB's for a spot to rant, rave and reflect
(Amy)

These musings indicate a developing self-awareness of the student's own learning and growth. Many postings also acknowledge the role that others in the course have played in

facilitating this growth, in acting as agents of change.

I have also gained enough confidence to go for a job I thought I wasn't qualified for and got it :-) less hours, more money, than my present job. Also giving me more time to study. So thank you to STEPS for giving me the confidence, 'c'est la vie' (Leigh)

IMPLICATIONS AND CONCLUSIONS

While drawing definite far-reaching conclusions from the experiences of external STEPS is unsustainable, certain provisional implications might be suggested. In terms of responding to what Foucault regards as the institutional rigidity and surveillance of sites like higher education, evident here is some sense of “deconstruction rather than maintenance of boundaries and hierarchies” (Cornforth and Bird Claiborne, 2007, p. 4). As such the power relations are displaced from a fixed, asymmetrical model to one which is more equal and flexible. Within the online discussion forum, boundaries between student and teacher are breached and lines of institutional authority challenged, at least partially. This seems to be significant in liberating adult learners from some sense of institutionalised inferiority that contributes to certain STEPS students’ unfavourable memories of formal education at school.

A second implication relates to the role of self-reflection in promoting students’ sense of themselves as agents of change. The role of the hero’s journey narrative complemented by an awareness of different archetypes, along with an appreciation of the role of learning styles and temperament types, provide students with a means for acting reflexively, standing apart from their situatedness as learner, reflecting on moves that might be available to them. These tools might also be employed in supporting other students without intruding into their personal space or subjecting them to the surveillance of an institutional authority.

In a previous publication (Danaher, McDougall, Sturgess & Todorovic 2008 forthcoming), we had considered the importance of teacher absence in contributing to a constructive, student-centred environment within the discussion forum. Our analysis in this paper confirms that such absence is significant in enabling effective communication, peer support and personal change among and within the students. While much discussion of online learning relates to notions of presence (Gunawardena & Zittle, 1997; Richardson and Swan, 2003), our study suggests further research might consider optimal conditions for the negotiation between presence

and absence. That is, how might lecturers generate an environment in which students are relatively free to take on teachers’ roles, offer peer support and act as agents of change without feeling vulnerable and isolated from appropriate support? Our findings have identified one such environment that seems to operate effectively; accordingly, it would be useful to consider the effectiveness of such principles for negotiating presence and absence within other online learning environments.

In the way in which the external STEPS program promotes effective learning journeys through the generation of relatively symmetrical power relations with students adopting teachers’ roles and providing peer support, it contributes significantly toward framing successful lifelong learning futures for a geographically dispersed group of interrupted adult learners.

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FRAMING FUTURES THROUGH NOTIONS OF A PARTICULAR 'COMMUNITY OF PRACTICE': WHAT TAFE TEACHERS SAID.

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ABSTRACT

This paper was initialised by a request from a group of Technical and Further Education (TAFE) teachers for support in the development of what they called "a community of practice". In an effort to explore this localised encounter with the concept of learning as a social phenomenon, this paper explores the question, "If a group of TAFE teachers described a community of practice, how might it look?"

KEYWORDS

TAFE teachers – communities of practice –
group interviewing – teacher voice

INTRODUCTION

Some would suggest that learning is less about the individual and more about the social relationships and conversations in which individuals are immersed. It is from this notion of learning as being a social process in everyday experience that the constructs of learning and community coalesce to produce such enactments as learning communities and communities of practice, as well as ideas around situated learning, social capital and distributed cognition. How a group of Technical and Further Education (TAFE) teachers constructed their version of a shared space where learning may occur through partnership and collaboration is of keen interest and offers a counter to managerial notions of 'how' TAFE teachers should 'do'.

This paper reports the particular teacher voice that emerged from a group of TAFE teachers as they reflected on and grappled with their concept of "community of practice". These voices have important implications for how this group of teachers choose to frame their futures through a synergistic association that might contribute to the enhancement of their capabilities as TAFE teachers and lifelong learners, and the shared social rewards this could bring, for example, staking a greater claim over their identities as curriculum innovators, and in offering alternative perceptions to those notions of teacher put forth by accreditation bodies. The teachers in this study are fulltime teachers at a regional institute of TAFE in South Eastern Queensland; their voices were gathered and interpreted through an interpretative paradigm.

The role that teacher voice plays in the shaping of teacher work environments has been emphasised by Brady (2003) in her statement that teacher voices "provide a composite account from the teachers themselves of what

they actually do...therefore it is a particularly valuable resource for... understand[ing] teaching practice context" (p. vii). Teacher voice also appears as inculcated within the concepts of teacher empowerment and teacher efficacy in that its articulation and subsequent enaction may well produce "a subjective state of mind where an employee perceives that he or she is exercising efficacious control over meaningful work" (Potterfield, 1999, p. 51).

What is of interest in this research is how a particular group of TAFE teachers might use their social connectedness to enhance their autonomy, build knowledge, articulate what's important to them and share information on different ways of knowing and doing. Kilpatrick, Barrett and Jones (2003) tell us that learning communities and communities of practice are two examples of social structures in which people can learn though an emphasis of social connectedness. Learning communities, on one hand, are situations where people of common purpose share space, physically or virtually, and actively promote learning through synergistic environments that create potential for all (Kilpatrick, Barrett & Jones, 2003). Kilpatrick et al. take the position that "[l]earning communities can be deliberately fostered" (p.9) and that leaders play a key role in the emerging collective learning process. Communities of practice (CsoP), on the other hand appear a little more enigmatic. For instance, Wenger (nd) emphasises that CsoP too can form for the purpose of collective learning, but he does not assume that they form just for the purpose of collective learning. "[L]earning can be the reason the community comes together or an incidental outcome of member's [sic] interactions" (Wenger, nd, p. 1).

This paper chooses CsoP as its central lens for two reasons. Firstly, the paper's beginnings were prompted by a group of TAFE teachers who named their group a community of practice (CoP) and second, in initial conversations with their spokesperson, the social support aspect of

the group was emphasised hence, learning per se was not reported as a central factor in group formation.

TAFE TEACHERS

The TAFE teachers in this study work in the vocational education and training (VET) sector within Australia. This sector has been undergoing unprecedented change as a result of new vocationalism (Grubb, 1996), an economic rationalist and managerialist doctrine (Chappell, 1999; Seddon & Marginson, 2001) that calls for teaching output to be defined in quantifiable terms that are intended to offer instrumental value to the Australian economy (Seddon, 1998). Some suggest that new vocationalism has pressured TAFE teachers to become different teachers (for example, Chappel, 1999; AUTHOR, 2006b) in that notions and identities of the TAFE teacher as a liberalist educator have been replaced by perspectives of the TAFE teacher as an educator for the market economy (Kronemann, 2001). Seddon, (2000) claims that the notion of teacher has expanded to one of “sophisticated producers, recorders, organizers, applicers, disseminators and brokers of knowledge” (p. 8). Yet with a new vocational lens emphasis is on particular knowledge that is seen as having instrumental value. This is exemplified with the implementation of competency based training (CBT) curriculum where particular training outcomes are dictated through industry training packages. These dictate to the TAFE teacher what teaching outcomes must be reached.

Voices that contest the above changes are many. For example, Robinson (1993) warned of CBT undermining teacher judgment, whilst Muclachy (2003) and AUTHOR (2006a, 2006b) articulate an erosion of TAFE teacher professional judgment. Reductions of tenure, increasing teaching workloads, and a required involvement in competitive tendering and user choice initiatives have all been noted as areas that have impacted upon what TAFE teachers do (Rimmer, 2002; Kronemann, 2001). The teaching terrain of TAFE teachers has been troubled to the extent that their capabilities and identities are in flux (AUTHOR, in press).

Communities of Practice

To suggest on one hand that the VET sector has been proactive in initiating innovation, or on the other, that the voices of discontent have had impact upon policy is possibly moot, nevertheless, CsoP are considered a useful strategy for benefiting the individuals and organisations within the sector. Under the ‘Reframing the Future’ strategy implemented by

the contemporaneous peak body responsible for VET in Australia, the Australian National Training Authority (ANTA), CsoP were highlighted as a means to “accelerate, intensify, enrich and enhance...” the Australian national training system. (Mitchell, Young & McKenna, 2007, ¶ 1).

Mitchell, Wood and Young (2001) pointed to the benefits CsoP provide to individuals and organisations within the VET sector. For individuals the benefits were distinguished as:

enabl[ing] employees to manage change...foster trust and a sense of common purpose...[and] add value to [their] professional lives (p. 12)

The benefits for organisations were highlighted by their ability to, for example:

“ generate knowledge...disseminate valuable information...decrease the learning curve for new employees...[and, to help] recruit and maintain talent” (p. 13).

Wegner, McDermott and Snyder (2002) tell us that CsoP develop because people find value in spending time together

“...sharing information, insight and advice” (p. 4).

An informal bond develops through having an understanding that colleagues have a shared perspective and a shared sense of belonging. The authors articulate three ubiquitous characteristics: Members are committed to a particular domain which interests them
Members enact their interest in this domain together within a community.
Members of a CoP communally share their ‘doing’ within this specific domain. (p. 45-46)

Wenger (nd) offers a useful nutshell definition:

Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. (What are communities of practice? ¶ 1)

One other factor associated with CsoP is of useful note. CsoP are “resistant to supervision and interference” (Wenger & Snyder, 2000, p 140). TAFE New South Wales Centre for VET teaching and learning notes this claim by highlighting need to nurture CsoP rather than direct them (ICVET, 2005).

Informants and inquiry

This research was initiated by a request for the author to meet and undertake a conversation with members of a CoP. The informants, self nominated members of this community, were a group of male TAFE teachers working in various

delivery teams within a faculty of manufacturing and built environment. This group endeavored to meet monthly. Attendance at the CoP meetings appeared to flex dependent upon the demands placed upon members on any given day. On the day when this conversation took place the group consisted of twelve men, all tradesmen from such trades as electrical, plumbing, painting, bricklaying and metal fabrication. Their period of employment ranged from two months to three years. In relation to education/training qualifications, all men taught their trade from differing educational positions. Some of the men were part way through the Certificate IV in Training and Assessment (a necessary requirement to teach at TAFE) others had attained the qualification. In addition to holding the mentioned Certificate IV, two of the men were part the way through an undergraduate degree in further education and training.

The method of enquiry deployed was that of semi-structured group interview (Glesne & Peshkin, 1992; Fielding & Thomas, 2001). The discussion was audio recorded and the recording later transcribed for analysis. For purposes of anonymity pseudonyms are used to distinguish between the various identities. In order to prime the discussion the author circulated a list of open-ended questions prior to the meeting, for example, how would you describe your CoP, what do you get personally out of this CoP, and what are the successful elements of your CoP? The author used some of these questions as direct questions, whilst with others their articulation was not strict, but their essence was alluded to over the course of the meeting. Responses to some questions sometimes moved cleanly into responses to other questions. Whilst at times questions were asked directly to invite responses, at other times respondents brought into the conversation topics not prompted by the questions. This interaction could be best described as a guided conversation.

What emerged

What was apparent from the start was an impression of a group of articulate men, keen to have their say and passionate about their role as teachers in TAFE. Yet despite their enthusiasm to teach, our conversation revealed a sober side to their role. The topic of interest in this CoP was *survival* particularly within their first three years of employment in TAFE. This section begins with discussion on the beginnings of this CoP and traces the conversation through some of its shadowy elements. In this section quotes from participants will be used to offer the reader an opportunity to consider the visceral reactions

these men are experiencing in relation to their work environment.

The conversation can be traced by several themes – *thrown in the deep end*, *hitting the wall*, *getting it together*, and *uncertainty*. These themes are not defined categories of conversation, but blurred focal points within the discussion. At times the conversation was sharply focused on one theme or another. At other times a theme was loosely connected to the conversational threads, for example, the theme of *uncertainty* lurked in the background of most discussion.

The beginning of this CoP can be traced to a conversation, held 18 months ago, between two of the men in relation to one of them *hitting the wall*. Miller recalls:

“... in conversations with George we were saying, gees, were having the same sort of problems at about the same stage of our working career as a TAFE teacher. So we started to gauge from other people’s opinions that we’re all in the same boat, so we started a group to try and help each other a little, that was the main driver.”

Miller tells that within six months of starting work at TAFE he had other employment organised:

“...six months down the track I was at the cross roads. I had another job lined up through various things that happened to me, I thought, that if this is TAFE teaching I don’t want it.”

For those members of the group who were employed for over six months, the prospect of “going back on the tools” at this point of crisis was considered as a reasonable option. Those who were more recently employed acknowledged experiencing these thoughts quite regularly.

Early in the conversation, the group articulated the major factor that was common to all in their reaching the point of *hitting the wall*. In what almost appears ironic, the moving from ‘the tools’ to ‘the classroom’ was not considered a primary stressor. They reported that they had steeled themselves in order to take on the challenge of teaching and indicated a preparedness to do what was necessary to become a competent teacher. The source of their major stressor was identified as the organisation and their interface with it. They described the complexity and volume of TAFE’s bureaucratic demands as a great source of frustration. One member identified this source as the “vagaries” of the bureaucracy. Frank, describes his situation:

"You overcome the hurdles of having to be in front of a class in the first place, and handle that environment, and then you've got a situation that arises where your DP, or IAP is due, or your yearly plan is due or whatever it may be. There is no, "this is how you do that and this is the process you go through". It's due by next Friday and you've got to have it in. So I think that, that whole, probably eighteen months or for some even less, is about the time someone lasts until they go "hang on a minute". This is, [when] that big wall comes in front of you, too big to get over. And you have moments where you think, as Miller said, "back on the tools" is the only option cause this is just not going to work." There is no guidance...mentorship to a certain extent if you've got someone on your team, but that's limited because they're busy as well. It's pretty much, "there is the deep end", be a TAFE teacher."

Other experiences that were identified as being further sources of frustration were, for example, teachers' depiction of:

- The organisation as demonstrating apparent shallow treatment of the notion of a beginning teacher and what that possibly might mean from a new teachers perspective—"beginning teachers...that's not recognised, let's get that clear"
- Managers who were more focused upon contact hours than on how they were coping as beginning teachers
- Role ambiguity about what their role as teachers entailed—"I have to find my apprentices otherwise my contract in on the line"
- Non-action in relation to promises for teaching resources. One teacher laments, "students walk in with a mobile phone in their hand that has more technology in it than three quarters of the bloody college", and
- The non-acknowledgment of the pro bono mentoring that has been provided by some more experienced teachers, and in some cases the non-availability of mentoring because of the more experienced teachers' workloads.

Despite the concerns raised, these men were quick to talk about the usefulness gleaned from this CoP. This is in relation to the sharing of frustrations and the possible relief that their individual disclosures and shared understandings provided. Highlighted specifically was their perception that they were all sharing common ground where everyone within the group

experienced contextual constraints and frustrations. The degree to which these frustrations hindered and produced thoughts of "going back on the tools" appeared dependent upon their length of service. Noted was the view shared by the longer serving members that at about the two to three year mark the knowledge, skills and attitudes associated with negotiating the "TAFE beast" appeared to coalesce into a particular kind of competency that enabled a better fit between the TAFE teacher and (in this case) his organisation. This was spoken about as a point where TAFE teachers appeared to be *getting it together*. In talking about length of service Bruce asked George, "You've been here for three years George, do you still find hurdles that you have to overcome?"

"No, I feel that I'm over that now" George replied.

Another teacher, who recently arrived at this apparent milestone, identified this as the period when "the pressure from the classroom was gone... that used to empty my stomach because I was not naturally a teacher type...I'm fairly comfortable now, when something comes up I can handle it..." This teacher does qualify his present station by acknowledging that he had a mentor who sheltered him from a lot of the bureaucratic pressures.

To the direct question "What do you personally get out of this CoP?" the essences of the replies were around social connection. One vocal, founding member replied "genuine rock solid mateship". Accompanying these articulations of mateship and camaraderie came a flow of small stories that recited instances of achieving success by choosing to deploy specific overt and covert tactics to the organisational frustrations they were experiencing. The attentive non-verbal signs exemplified the attention paid to these stories by the newer members. These newer members told of their relief when they heard during this segment that older members experienced a sense of impostership, that they "didn't have all the answers" and "felt inadequate" at times. This disclosure appeared as a further catalyst to a series of questions and answers that may not have eventuated in the general to and fro of daily work, for example, instances of successful relationships with strategic organisational members, and answers as to how best to present one's weekly timetable, were shared.

Finally, on the question of the co-ordination of this CoP, members expressed a great deal of thanks to one of its founding members who had taken on the task of coordinating the meetings. Members acknowledged that without Miller "...it

would probably collapse, because something like this needed someone to organise..." George said: "it was out of him [Miller] caring enough to say "my mates need this"...there is no money/hours connected to this."

Kane continued with "If it wasn't for people like Miller things like this wouldn't happen, because I know I wouldn't think of doing this, because I would think that I was the only one having these problems."

CONCLUDING THOUGHTS

We now return to the central tenants of a CoP—shared domain of interest, community and practice (Wegner, McDermott and Snyder, 2002). What is explicit in this data is that they provided a clear example of: a domain of interest where members are seeking answers to questions around surviving the initial years as a TAFE teacher, a community interacting together in ways that provide social support and a practice in relation to negotiating a troubling terrain experienced by male teachers and arguably produced by a particular organisational environment.

It is evident that the experienced members of this CoP have access to tacit knowledge in relation to negotiating the organisational terrain that appears to offer much frustration to newly employed teachers, and that they are actively involved in the stewarding and sharing of this knowledge. This is exemplified in the manner in which the success stories were shared during the course of the meeting. McDermott (1999) tells us that not only do members need this non-documented knowledge, but also this knowledge needs to be talked about, *thought* about and shared.

What is also explicit is that the operation of this CoP supports the research by Wegner and Snyder (2000). This CoP organises itself, sets its own agendas and operates its own style of leadership. It is organic and resists organisational control (Casey, 2005). The latter is exemplified by the comment from a founding member around a suggestion made in 2007 that emanated from institute management that the Director could be a regular member: "Miller and I suddenly got the shivers and thought, well hang on a minute, this is not the point of our group."

Earlier, this paper highlighted the benefits that CsoP can bring to the VET sector (Mitchell, Wood and Young, 2001) enabling employees to manage change, fostering a sense of common purpose and, as points of informal dissemination of information to enhance productivity were some examples. What was not noted was the value that CsoP can play in their role as a

provider of space for teacher voice to be articulated and heard. In this instance the volume of these TAFE teachers' voices in articulating their early experience with their employing organisation is loud. It is one that reports particular frustrations and uncertainties that produces in some members thoughts of leaving the profession, and in others an active choice to do so.

This study prompts many questions, for example, what might a CoP containing female TAFE teachers within the same organisation nominate as their domain of interest, how might their sense of community be described, and how is that different from the CoP within this study? But, for the participants within this CoP, their questions appear to reverberate around the theme of recognition (and possible relief from) the stressors of the beginning TAFE teacher experience.

To close, this paper highlights the voice of one CoP member. It resounds with a vision in which he frames his future as a TAFE teacher and offers insight into his professional identity as a lifelong learner within the TAFE community.

Miller states: "My push now is to carry on in a professional manner so that when my [more experienced colleagues] leave, I can do at least as good a job as they have done...I don't want to see that disappear...I want to be able to produce the quality teaching they produced before me, I don't want to let it taper off, that's my main drive."

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FACTORS THAT INFLUENCE THE EDUCATION CHOICES OF MEDICAL/SURGICAL REGISTERED NURSES WITH MORE THAN 20 YEARS CLINICAL EXPERIENCE

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ABSTRACT

An interpretive research study using focus group interviews was undertaken to identify factors that influence the education choices of medical/surgical registered nurses with more than 20 years clinical experience. The results of this study showed that the education choices of this group are based on lifestyle, organisational, and educational factors.

KEYWORDS

nurses – lifestyle – organization – education

INTRODUCTION

The purpose of this research study was to explore the education choices of medical and surgical registered nurses with 20 years or more clinical experience and to uncover the factors that influence their lifelong learning choices. This group of nurses was chosen as they make up the majority of the current nursing workforce and therefore play an important role in health care (McCaughan & Parahoo, 2000), yet there is little information available on the factors that influence their lifelong learning choices.

One study that did attempt to identify the educational needs and learning approaches appropriate for medical and surgical registered nurses was undertaken by Gibson (1998) using a Delphi survey panel involving 28 nurse participants. The results of Gibson's study showed that medical and surgical nurses require knowledge and skill in clinical care, specialist-nursing roles, their changing roles within the health care system, and research application. She also found that this group of nurses valued an organisational climate that fostered both personal and professional development in everyday work practices. The results of Gibson's study showed that medical and surgical nurses felt that a positive organisational environment would add opportunity for professional development that was as worthy as formal education courses. However, Gibson (1998) did find that although nurses valued and needed staff development factors such as lack of time, resources, and support, as well as lack of recognition limited their participation in education.

A further search of the literature uncovered several research studies that explored nurses' thoughts on factors that influence their education choices and participation in professional education programs. One early study was undertaken by Iava (1994) who surveyed 76

students in postgraduate nursing schools in the North Eastern region of USA to identify their reasons for undertaking their course of study. The results of the study showed that most nurses commenced their study program in an effort to secure professional advancement, acquire knowledge that may assist in improving their nursing practice and to gain higher job status. The results of Iava's (1994) study are supported by the outcome of research undertaken by Gould, Smith, Payne, and Aird (1999). These United Kingdom based researchers organised group interviews with 62 students enrolled in post-registration nursing degrees and explored the students' expectations of and reason for undertaking their chosen course of study. According to the outcome of Gould's, et al. (1999) study, nurses undertake post-registration nursing degrees for their own personal and professional development and also to acquire knowledge that will enable them to provide quality patient care. These findings are confirmed by research undertaken in Australia by Pelletier, Donoghue, Duffield, Adams, and Brown (1998a) who explored why nurses undertake higher degrees. A survey of 666 students enrolled in post-graduate nursing studies in a large university in Sydney was conducted and Pelletier, et al (1998a) found that nurses undertaking post-graduate studies were seeking both professional and personal satisfaction, increased professional standing and better job opportunities. This study also showed that the most likely factors to disrupt their studies were family and work commitments however a large percentage (40%) indicated that nothing would interfere with their study plans.

Issues surrounding nurses' attitudes to continuing professional education are also important in influencing their lifelong learning choices (Rambur, McIntosh, Palumbo, Reiner, 2005). Kersaitis (1997) surveyed 500 nurses in NSW to identify their attitudes and participation in continuing professional education activities. She discovered that the majority of respondents participated in some form of continuing

professional education and that most of the nurses would be prepared to pay for courses they believed were relevant to their work. Nevertheless a literature review prepared by Furze and Pearcey (1999) found a gap in the research knowledge about the value of continuing professional education to patient care. Although these authors found that nurses valued professional education, there was little research available to show the impact of this type of education on patient care activities. This view is supported by a recent study conducted by Hallin and Dainelson (2007). These Swedish researchers interviewed 15 nurses and identified a need for more patient care time and employer support for professional educational activities as factors that influence nurses education choices. However, these researchers did not select medical or surgical nurses as a discrete group, nor identify the years of experience of participants.

Much has been written on the learning needs of nurses and the value of education however there is little research available on the factors that influence the education choices of medical and surgical registered nurses with 20 years or more clinical experience. Such a paucity of information in the literature is concerning as it is well documented that there is a world-wide shortage of nurses (Camerino, et al, 2006) and that the available nursing workforce in Australia is aging in-line with the general Australian population with the average age of nurses in 2005 being 45.1 years (Australian Institute of Health & Welfare, 2008). As middle aged medical and surgical nurses with 20 years of more clinical experience make up the majority of the current nursing workforce and, there is little research available on the factors that influence their education choices, it was essential that research be undertaken to identify the factors that influence the lifelong learning choices of this group of nurses.

RESEARCH QUESTION, METHODS, SAMPLE, & DATA ANALYSIS

An interpretative research methodology was adopted to address the research question: What influences the education choices of medical and surgical registered nurses with 20 years or more clinical experience?

In total 11 focus group interviews were conducted as part of this research project. A focus group usually consists of four to 12 individuals with shared a personal experiences of the topic area and is carefully planned and guided to obtain the group's perceptions of the research topic (St John, 2004). According to St John

(2004), researchers using focus group interview techniques need to ask several different categories of questions during the focus group interviews including, the opening question, introductory questions and transition questions as well as key questions and ending questions. For this research study, the following focus group questions were asked: 1. What has influenced your previous education choices? 2. What would encourage you to pursue further education? 3. What type of education do you enjoy?

Ethical approval to conduct the research was received from the University and various hospital research and ethics committees. These committees followed the guidelines set out by the National Health and Medical Research Council of Australia (2007). Permission to approach nurses in each institution was requested via a letter to senior hospital management and entry to the health care agency followed individual hospital policy concerning research.

In total 48 registered nurses with 20 or more years clinical experience who were working on the medical and/or surgical wards in public hospitals in towns and cities in Queensland where universities have campuses with a School of Nursing were recruited for the focus group interviews. The sample group was chosen as all participants had the opportunity to attend staff development programs offered by their hospital's Education Centre (opportunity for attendance may have been in either their own or work time) and ready access to tertiary education facilities and nursing courses.

Participants were advised that their participation in the focus group interviews was voluntary and all were provided with an information letter and asked to sign a consent form. Participants were assured confidentiality would be maintained. The focus group interviews were recorded on audiotape and transcribed later. The transcripts were coded consecutively commencing at number one to number 11 to ensure confidentiality. Copies of the transcripts were returned to participants for comment and validation. Although participants were invited to comment on the transcripts, no feedback or alterations to the interview notes were received. Consequently, data analysis proceeded with the original transcript data.

The interview transcripts were analysed by content analysis. This involved reading the transcripts, deletion of the interview questions from the full interview transcripts, deletion of words that may detract from key sentences, and re-reading remaining text to uncover meaning.

This process was repeated several times and key words and concepts were identified. Key concepts were clustered and labeled thereby allowing the emergence of common themes and meaning (Emden, 1998).

RESULTS

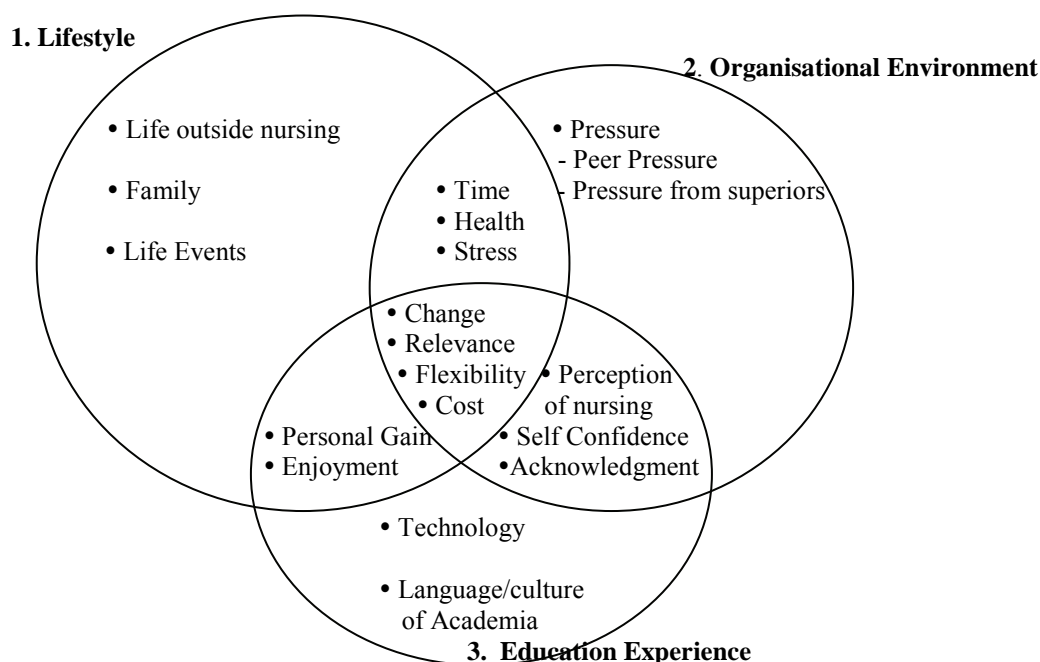
Of the 48 registered nurses who agreed to participate in the research, 47 were female and 1 male. Participants were aged between 40 and 61 years with the mean age being 47.7 years. All participants had been hospital educated. A wide selection of education choices had been made by participants throughout their nursing careers, ranging from staff development activities conducted by the staff development unit of their health care organisations through to Masters level studies at university. All participants were working shift work in public hospitals in Queensland. Of the 48 participants, 37.5% (n = 18) were from regional areas in Queensland. As of June 30, 2006 34% of the Queensland population was estimated to live in regional and rural centres (Australian Bureau of Statistics, 2007). Therefore the number of participants in this study living in regional centres is

representative of the percentage of the population of Queensland.

Analysis of the data uncovered numerous common themes regarding the factors that influenced the education choices of medical and surgical registered nurses with 20 years or more clinical experience. These factors are classified under three main headings:

1. Lifestyle, 2. Organisational Environment, and 3. Education Experience. Diagram 1 presents a diagrammatic description of the results. The difference in the sizing of the circles represents the strength of the influence of each factor on the education choices of the sample group. The largest circle highlights lifestyle factors as the major influence on this group's educational choices, followed closely by organisational environment and education experience. The overlap between the three key elements of lifestyle, organisational environment and education experience uncovered the sub themes of each group, highlighting the inter-relationship between each of the key factors that influence the education choices of medical and surgical registered nurses with 20 years or more clinical experience.

Diagram1 - Factors Influencing Education Choices



Lifestyle

Lifestyle factors such as the life outside nursing, family life events including children's needs and age, time, health, and stress have all been identified by this research as influencing the education choices of medical and surgical registered nurses with 20 or more years nursing

experience. This is demonstrated in the quote below:

"...there is a life outside nursing, believe it or not, and there is pressure to do education but I don't think there are the jobs in nursing to warrant all the

Implications on your family or your health.” (Interview 8)

Another aspect that influenced education choices of medical and surgical registered nurses was the fact that some members of the family, who had contributed to the study, expected results such as increased salary or a rise in status, and were disappointed when this failed to occur. One participant who failed to get a promotion after studying stated:

“My husband used to say I’ve been paying this money for this degree and buying all these books, what are you doing that for, what’s it going to get you, You didn’t get a pay rise last time so why are you doing more study?” (Interview 10)

The results of the study showed that this group of registered nurses felt that there was little or no acknowledgement by employers for studies undertaken and that they would only contemplate doing study that provided for flexibility in both delivery and time, and was relevant to their work.

“I mean we are being told to go and get a degree but what have I got a degree for. I did not get any more money. I did not get a promotion. No one is going to give me higher money or a bigger office, or pat me on the head. There is no incentive to do it really, yet we are expected to constantly be studying something.” (Interview 9)

Many participants in this research project felt there were a number of lifestyle factors that affected their education choices. As such, further education had to be viewed as enjoyable in order to be undertaken. In some cases, the enjoyment and relevance of studying outweighed the financial cost.

“If there is something that’s interesting, I will go and do it. Some things you don’t mind spending the money on if you enjoy it.” (Interview 4)

Interestingly, although several participants talked about the need for experience to be recognised as learning, many focused their discussion around why they had or had not undertaken tertiary study.

Organisational Environment

Organisational environment such as pressure, time and stress were identified by this research project as influencing the education choices of medical and surgical registered nurses with 20 or more years clinical experience. The results of this study showed that the organisation’s perception of nursing has the ability to influence this group’s education choices.

“I think the whole thing in this hospital is that you are skilled for the floor, nothing

more. Keep you on the floor, the bare minimum skills you need to function on the floor and that’s it, end of story...Not into development.” (Interview 5)

The study also showed that this group of nurses felt that there was little or no acknowledgement for studies undertaken by their health care organisation and, as such, employer-sponsored studies were a more attractive option. Another factor, which appeared to be related to the organisation’s perception of nursing, was that work took priority over education. This was perceived by participants to be in contrast to the experience of medical staff, whose work within the health care organisation could be interrupted for education.

“When the medical staff want their in-service....they are not disturbed, so we have to shuffle around that time if we want to access them, but we can’t do that in nursing, we can’t deprive a group of patients a nurse for an hour.” (Interview 1)

Furthermore, the outcome of the research indicated that the relevance of the study to the participants’ work was another major influence on whether study avenues were pursued.

“The issue for the person who wants to stay at the bedside is that a lot of courses simply don’t interest them. It can be very frustrating and you can waste a lot of time doing subjects that you are not interested in.” (Interview 7)

Education Experience

The third major category to emerge from the research data was education experience, which included sub-themes of self-confidence, perception of nursing, acknowledgement, change, relevance, flexibility, cost, enjoyment, personal gain, language and culture of academia, and technology. Several participants spoke of both positive and negative consequences of their past education choices on their self confidence and as such, identified their perception of this experience as a factor which may affect their future education choices. Some felt threatened by the educational process or those who possessed educational qualifications.

“..... I think that certainly at my age I feel under threat from younger people who have tertiary qualifications even though I was a charge nurse.” (Interview 6)

The results of this study show that some of the research participants felt that the culture and language of academia was far too difficult for them to grasp, however, in contrast, several participants did express the view that their tertiary education experiences had been both challenging and rewarding.

“...The language really got me as to how they wanted things worded. It was a totally different language to what I was used to, I could say things in two sentences, and they want 3000 words. That was very difficult learning and affected how I felt about myself.” (Interview 2)

The cost of and expenses associated with education were clearly identified in this research as factors that influenced this group of nurses' education choices with several participants expressing the view that the current full fee paying structure of post-graduate nursing courses was prohibitive.

“...some of the graduate studies are so damn expensive that they are pretty much out of the average nurses price range” (Interview 3)

Furthermore, the results of this research study showed that nurses were not willing to spend money on courses they felt were irrelevant and would seek flexibility in study options when choosing programs of study.

“With a family you just don't have the time to go to uni. I found studying an external course I could study whenever it fitted in with my life.” (Interview 11)

DISCUSSION

Despite the professionalisation of nursing, the movement of nursing education to the tertiary sector (Short, et al. 1993) and the need for modern nursing practice to be evidence based (Furze & Pearcey, 1999), the results of this study show that mature experienced registered nurses do not appear to be undertaking further education. Furthermore, the results of this study identified lifestyle, organisational environment, and education experience as being key influences on the education choices of medical and surgical registered nurses with 20 years or more clinical experience.

Lifestyle factors such as life outside nursing, family life events, children's needs, available time, health, and life stress have all been identified by this study as influencing the education choices of medical-surgical nurses with 20 years or more clinical experience. Such findings are consistent with those of previous research in which role stress (Chang et al. 2005), job satisfaction (Rambur, et al, 2005), and lack of flexibility in the provision of education (Hyde & Murray, 2005) have all been identified as influencing the education choices of registered nurses. In addition, nursing continues to be a profession that is comprised mainly of women whose careers are often interrupted by family commitments (Huntely, 1995). The findings from

this study that family commitments over-ride study plans is supported by the outcome of Pelletiers' et al. (1998b) Australian study into the impact of graduate education on the career paths of nurses. According to Pelletier, et al. (1998b) women find it difficult combining both part-time study, full time work and family commitments. These authors also contend that the availability of workplace support is an important issue for nurses when deciding whether to undertake educational activities.

The second theme identified from this research as influencing the educational choices of medical and surgical registered nurses with 20 years or more clinical experience was organisational environment. This theme included; work pressure, time, stress in the workplace, and the organisation's perception of nursing. According to Chang et al. (2005), the undersupply of nurses and an aging workforce contribute to increased role stress for nurses who choose to remain in the workforce. Role stress in turn leads to burn out and attrition of nurses from the workforce (Camerino, et al. 2006). This current study showed that participants were experiencing a number of factors related to role stress and that these factors influenced their education choices. In addition, little or no acknowledgement from the organisation or monetary reward for studies undertaken has resulted in a reluctance to give up their family roles in order to pursue educational activities. According to the results of Hallin and Danielson's (2007) research motivation to undertake further education occurs if nurses are supported by their organisation.

The third major theme identified from this research study was the education experience. The results of this study showed that the pressure on the participants' time, their many other life roles, including that of wife and mother, and the cost of higher education often means medical and surgical registered nurses with 20 years or more clinical experience may be unable to pursue education via formal means and instead favour work-based staff development programs and continuing education. Such findings are unique to this study as the current available literature discusses the need for continuing professional education (Clarke & James, 1997; Furze & Pearcey, 1999; O Shea, 2003; Hallin & Danielson, 2007) but does not consider the effect of this on the aging nursing workforce or the other life factors that contribute to or detract from the education experience.

RECOMMENDATIONS & CONCLUSION

The results of this study showed that registered nurses with 20 or more years clinical experience

have many life commitments that draw on both their financial, physical and emotional resources and therefore they may have little time or money left to pursue education. The results of this study revealed that this group of nurses' value work based learning and as a consequence it is recommended that key stakeholders in nursing education, that is, staff development educators, academics and nurse managers, adopt the following seven strategies:

1. Ensure learning programs are both experiential and relevant to the target group;
2. Work together to promote purposeful education programs that are relevant to nurses;
3. Work together to implement steps to facilitate a link between industry based learning, professional development and academic standards thereby enabling a transition to tertiary studies if desired;
4. Have information regarding all types of education programs available for staff;
5. Introduce strategies to facilitate the development of study skills;
6. Use creative and flexible rostering and implement strategies to facilitate equity amongst staff seeking study support;
7. Seek and provide incentives such as scholarships and flexible rostering to assist with the goals of this group of nurses.

In conclusion, the education choices of medical and surgical registered nurses with 20 years or more clinical experience is influenced most strongly by lifestyle factors, the cost of the course, the time available to do the course, including the demands on time of both their life outside nursing and work commitments, the relevance of the proposed course to their career aspirations and current job requirements.

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EMBRACING CRITICAL SELF-REFLECTION – A NECESSITY FOR LIFELONG LEARNING

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ABSTRACT

Critical self-reflection is a cognitive and emotional process which can allow an individual to self identify, critique and revise long held personal assumptions that may have hindered potential for lifelong learning. When such obstacles are removed, lifelong learning can be enhanced, for individuals can deconstruct some long held assumptions and conceptualise new futures.

KEYWORDS

critical self-reflection – perspective
transformation – transformative learning

INTRODUCTION

More and more Australian adult learners are partaking in higher education. Figures from the Australian Bureau of Statistics (2008) indicate that in 2006 there were approximately “984,100 students enrolled in higher education courses”, with 39% being aged 25 years or older. This figure shows a “3% increase in the number of higher education students from 2005 to 2006” and is indicative of a worldwide trend.

Furthermore, the ABS (2007, p. 1) indicates that educational attainment in Australia has been steadily rising, “up 48% from 1996”. They attribute this to the demand for greater skills levels required in an “increasingly technological workforce”.

Amongst the throng of adult learners embarking on higher education are those who for varied reasons, have been absent from educational contexts for a long period of time, and who may lack the appropriate skills to confidently commence their studies. To accommodate their needs, at a national level, Enabling, Bridging or Preparatory programs have been designed to assist adult learners to develop the skills, knowledge and attitudes required to become successful undergraduate students. This paper examines the 13 week learning journey of a group of nine adults as they engaged in one such program, situated in a regional area typified by a low level of citizens in possession of higher education degrees. Many of the adult learners in the program were the first in their family to enter the higher education context, and as such, experienced varying levels of support, encouragement, trepidation and lack of confidence. Many alluded to past experiences that remained a hindrance to their lifelong learning potential. What this paper specifically seeks to achieve is a better understanding of the role that critical self-reflection can play in exploring the ways in which the adult learners

were able to articulate critical self-reflections of self-as- learner. Drawing upon research from a doctoral thesis, it analyses data based upon a series of interviews. An indication of critical self-reflection is understood in terms of how these learners were able to talk about the (often emotion-laden) assumptions that they had of self-as-learner, and how, in some cases, they were able to transcend these beliefs through a process of rationalisation. Such knowledge hopes to highlight the importance of pedagogical practices that support opportunities for adult learners to engage in critical self-reflection.

THEORETICAL FRAMEWORK

Critical self-reflection

A return to formal study can to be stressful for many adults. Amongst other reservations, adult learners may often have less than positive associations with regards to past formal educational experiences, harbouring negative, long-held assumptions about self-as-learner. Such assumptions are likely to impact upon individual learning potential, although the belief that adult learners have negative views of themselves as learners is, in itself, an assumption. However, when adult learners are given opportunities to articulate their previously unquestioned long-held beliefs about self-as learners, they can provide some insight into the assumptions they hold. One way this process can be facilitated is through critical self –reflection.

Critical self-reflection involves critical, focused questioning that can challenge one’s existing assumptions, values and beliefs about one’s motives, actions and responses. In acting as a valuable tool in changing perceptions of self-as-learner, it can be argued that that it can also be instrumental in developing one’s potential for learning. Cranton (2002, p. 65) identifies ‘critical self-reflection’ as one of seven inter-connected and iterative facets of perspective transformation. These facets include: an activating event; articulation of assumptions; critical self-reflection; opening self to alternative viewpoints; engagement in discourse and dialogue; revision

of assumptions; and acting on revisions. The facets combine to result in a change of perspective, or as Mezirow (1978) first used it, perspective transformation. In the context of perspective transformation, critical self-reflection entails not only articulating assumptions, but “questioning and examining assumptions in terms of where they came from, the consequences of holding them, and why they are important” (Cranton, 2002, p. 66).

To engage in critical self-reflection requires a degree of honesty, contesting long held beliefs that in the past may have afforded a degree of safety and surety. Being critically self-reflective can be a somewhat dichotomous, emotion laden experience, one that can entail degrees of grief and regret, elation and empowerment and liberation and illumination. From this perspective, as part of the wider context of transformation of the individual, critical self-reflection needs to be understood as an emotional journey as much as a cognitive, rational process (Cranton & Roy, 2003). In addition, given that much of the process is internal and the students themselves may not always be conscious of the changes taking place, critical self-reflection must be remembered for its sometimes insidious nature.

Lifelong learning

Lifelong learning is sometimes rather generally referred to as learning from the cradle to the grave, and for the purposes of this paper, it is seen to include “any formal, non-formal and informal educational experiences designed to provide education to individuals to enable them to function in different contexts” (Maruatona, 2006, p. 553). Although debate arises as to the specific audience to whom lifelong learning is directed (Jarvis & Holdord, 2006, p.546), and which political ideologies are perpetuated, it remains a somewhat contentious descriptor that is often used synonymously with adult education. Rather, this author interprets lifelong learning as any learning, formal and informal, gained along life’s many journeys, the findings described in this paper being one such journey.

METHODOLOGY

The research design was informed by qualitative paradigm that utilised words as data, gathered from a series of group and individual interviews provided by nine voluntary participants as they engaged in a thirteen week pre-university preparatory program. The participants were part of a class of 25 students who engaged in the face to face mode of a program. A Foucauldian approach to discourse analysis provided a means by which instances of the ways in which students

positioned themselves as learners in a broader context were made obvious. Upon transcription of the data, categorical analysis, which ‘involves the systematic organization of data into groupings that are alike, similar or homogeneous’ (Rose & Sullivan, 1996, p. 232) proved a starting point for the production of descriptive categories, and facilitated the development and application of ‘codes to the data’ (Lanshear & Knobel, 2004, p. 271). This process aimed to find relationships amongst the data and then to logically categorise those relationships.

Through the iterative process of examination and probing, it provided a means by which data could be collated and examined more specifically. It also allowed for categories to emerge from the data (Coffey & Atkinson, 1996). Such a means of analysis provided the basis for generating some explanatory propositions that are presented and discussed in this paper. It enabled me to examine instances where the participants identified long held assumptions about self-as learner, how possible evidence of critical self-reflection occurred, and in some cases, how new perspectives of self-as- learners may have been instrumental in conceptualising new futures as a lifelong learner.

RESULTS

The process of critical self-reflection can be an unsettling experience, one that can lead to changed perceptions of self. Evidence from the data in this study suggests that for some of the adult participants in the 13 week pre-university preparatory program, this was the case. Indeed, the learning journey proved not only to be one that delved into the mechanics and techniques of academic writing and mathematics, but also one of self-discovery and opportunities to critically self-reflect. Some participants were able to articulate assumptions they previously held about self-as-learner and data indicated that some came to revise long held assumptions at various points throughout the program. Some identified the influence of ‘significant others’ when it came to the assumptions that they held of self-as-learner. Others referred to a variety of key people who had influenced their self-perceptions; one talked about family members who had always made her feel inferior and less intelligent, while another mentioned a teacher who had mocked his creative writing attempts and humiliated him in front of his peers. It appeared these assimilated assumptions had in some cases become self-fulfilling prophecies, ones that constantly and powerfully dictated many directions in subsequent life choices and decisions of the participants. Other participants indicated that

.their lack of confidence as a learner in a formal learning situation was the result of damaging school experiences. Interestingly, most of the adult participants could articulate an explanation for why some prior learning experiences may not have been of a positive nature.

Data revealed that at the outset of the preparatory program, many of the participants held negative assumptions about themselves as learners, using emotive vocabulary including such self descriptors as 'silly', 'stupid', 'hopeless' and 'scared'. However, the intervention of activities that involved the adults having to engage in critical self-reflection, such as identifying learning styles and temperament types, may have provided the impetus for critical self-reflection. In providing opportunities for the students to specifically identify and understand how they functioned as learners, and how it is that each individual possesses their own unique learning preferences and styles, it is possible that a change occurred with regards to how they viewed self-as-learner. Closer scrutiny of the data revealed that the assumptions some of the participants held about self-as-learner did indeed undergo a change throughout the program. At a rudimentary level, this is evidenced in their utilisation of a more proactive vocabulary, evidenced later in the program by their words, such as 'confident', 'positive', 'special' 'excited' and 'less judgemental' when referring to their own learning capabilities. Such a contrast in vocabulary from that used at the outset of the 13 week journey could be said to provide compelling evidence that a change in assumptions about self-as-learner did indeed occur for some of the participants.

Preliminary findings

The preliminary findings provide an indication of critical self-reflection, understood in terms of how the participants (pseudonyms used) discussed their assumptions of self-as-learner. When participants articulated their beliefs, they provided insights into the assumptions they held, and came to critique. Bert was a participant who made an assumption about the nature of formal learning environments. In revealing a sense of vulnerability, it appeared that due to past experiences, he made the assumption that a return to a formal learning environment would be a threatening experience for him. It appeared that he had based this assumption on past experiences and his words indicated the negative influence this assimilated assumption had for his potential for lifelong learning. He revealed:

I never really expressed my view and probably that goes back to Grade 4 and the humiliation I felt then. I never wanted to go

through that again so I never opened up and gave my views about what I thought about something. I thought it I would be hurt again.

However, later data revealed that perhaps as a result of Bert being able to firstly articulate this assumption and secondly, engage in critical self-reflection, Bert's assumption about the nature of formal learning environments was challenged, and as a result, may have changed:

Coming in and doing STEPS has challenged my mind and it's actually getting me out there and opening up into something I haven't been doing for many years. I have actually felt nurtured in here

Bert made a further assumption about what would transpire if he expressed himself in words, both written and spoken within the classroom context. He assumed that he would be exposed to humiliation if he opened up to others. He said:

I thought, "This is going to open up something and I don't want to be embarrassed or ashamed or stuff like that."

However, over a period of time, it became apparent that Bert came to revise his assumption that he would be hurt if he expressed himself to others, and revealed the very personal journey he took as he deconstructed this particular assumption:

Coming into STEPS has forced me to look differently at some things I have never looked at before. I have really enjoyed writing. I'm not so self-conscious about what I write now...it's helped me a lot...really picked up my self confidence.

It appeared that he no longer held the assumption that opening up would not mean pain.

Barb was a participant who appeared to hold the assumption that her classmates' behaviours would quite simply replicate her own, and her lack of tolerance of others was expressed quite vehemently:

I felt like punching people's lights out when they were thoughtless and rude. We had a lot of rudeness and comments that were unfair and people were demanding. There was a lot of bickering and lack of tact being displayed in our classroom.

Her assumption however appeared to change considerably, for data gathered later in the program indicated that her assumption about the behaviours of others had changed:

I have learnt more about people and how they do things and why. They've got different values, or different roles in their lives and sometimes you've got to just sit back and accept who they are. Everyone is

different and I see that in a lot of people now.

It appeared that critically reflecting on the behaviour of others had allowed Barb to change about her assumption of others being just like her.

Barb also articulated the belief that for various reasons, she felt inferior to her family members, making the assumption that they purposefully excluded her by undermining her intellectual capacity. She gave some insight into how this assumption had stymied her learning potential:

Before coming here [STEPS], I wouldn't even give an intellectual view if I was with them [family]. If I was with them I tended to sit back because I wasn't educated as much as them, and they spoke with these big words, sometimes purposefully just to patronise me.

Critical self-reflection quite possibly afforded Barb the opportunity to deconstruct the assumption she held with regards to her feelings of inferiority. She was able to conceptualise a different assumption about why it was that she felt her family did not include her. She revealed:

Here [STEPS] I feel part of something and I've learnt that I'm...just a different personality...and that that is okay. Maybe they were threatened by my ability to just take off and just do whatever I want.

A sense of liberation was evident in Barb's revised assumption, and she came to appreciate that it was acceptable to be different to her family members. It could be argued that this revelation enhanced her potential for lifelong learning.

A further assumption Barb articulated was that because of her past work history and experiences, she did not consider herself worthy or intellectually capable of a university education. Furthermore, her words revealed the inner turmoil she experienced as she questioned her right to be in the pre-university context. She assumed she was a misfit in this context:

On the first day [of STEPS] I reflected: Would anyone notice that I was a lowly shopkeeper trying to masquerade as a higher more intelligent being? You can't do this! Haven't you looked in the mirror lately: You're blonde, 41, sickly child and frankly I don't think you'll cut it.

A period of time lapsed before Barb's assumption about her suitability and ability in the educational context changed. It appeared that some degree of critical self-reflection had precipitated a change:

I'm not stupid, and I have shocked myself how I'm taking things in and achieving things. The big thing that I've learnt that's giving me confidence to go on is to realise that NO. I'm not stupid!

In dispelling the assumption that she was not 'smart' enough engage in the pre-university context, she no longer abided by the assumption that had previously restricted her potential for lifelong learning.

Rita was a participant who, because of her age, assumed she would be unlikely to experience success in the pre-university context. She made assumptions based on her age and capabilities, self-doubt obvious in her words:

Am I too old? I must be crazy to even contemplate huge changes at this time of my life. What are my capabilities?

However, over the passage of time, the assimilated assumption of Rita's, that age would determine her success or lack thereof, came to change and she revealed:

I am finding that I am doing better than I ever thought I was capable of. There's nothing that will stop what I want to do now...I never thought I was stupid but I never thought I would achieve what I have achieved.

In critiquing an assumption through the process of critical self-reflection, it was obvious that Rita came to hold a revised assumption about her abilities, and in so doing, it appeared that her potential for lifelong learning was unleashed.

DISCUSSION

These findings are significant from a theoretical as well as a pedagogical perspective. Firstly, the study validates Cranton's (2002) work in that it shows that the articulation of assumptions is an integral aspect of perspective transformation. Whilst critical self-reflection is, for the most part, an internal process, there were tangible examples of how participants in this study expressed their changing views of self-as-learner. In articulating these assumptions, the participants invariably scrutinized their beliefs, and sometimes gave poignant insights into how, over varying periods of time, their views of self-as-learner changed in some way. As Cranton's (2002) theory suggests, the process of articulation of assumptions can help students clarify their thinking and facilitate the process of revising previously-held beliefs about self-as-learner.

Secondly, the findings from this study have important implications for all educational programs that are designed to prepare adult learners for tertiary study. Opportunities for students to talk about – in written or oral forms -

their learning journeys and their views of themselves as learners can encourage critical self-reflection. Explorations of self-as-learner can be a significant step in helping adult learners identify and question previously held perspectives and engage in a process to demystify such perspectives. Educators involved in programs designed to prepare adult learners for university need to recognise the value in providing such opportunities as a catalyst for change, and more significantly, for unshackling the chains that could be hindering lifelong learning potential.

CONCLUSION

This paper has presented critical self-reflection as a valid step in critiquing individuals' longheld assumptions that may have hindered their lifelong learning potential. In utilising the words of a group of adult learners as they engaged in a program that challenged them to articulate and deconstruct assumptions about self-as-learner, some insight has been provided to suggest that critical self-reflection may well be invaluable in conceptualising new futures in lifelong learning.

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EVALUATING THE SOMATICALLY ENHANCED APPROACH OF TEACHING MANDARIN CHINESE

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ABSTRACT

A tonal language such as Mandarin Chinese (MC) is considered a hard language to learn for English speaking learners. This paper reports on an experiment using the Somatically-Enhanced Approach (SEA) to teach MC in an Australian university. Innovations include: the use of relaxation, humming, clapping and gestures to emphasize the rhythm of MC.

KEYWORDS

foreign language learning– the body – movement
– pronunciation

INTRODUCTION

This paper describes a set of methodological and procedural measures in L2 language learning that promotes the life-long learning of L2 languages. Somatically-Enhanced Approach (SEA) is an active, student-centred approach to teach and learn a foreign language (L2). With the aid of strategies in SEA, people can plan and assess their own learning, become actively engaged in their own learning; and transfer what they have learned in the classroom context to real world contexts of L2 language use. SEA helps people learn to employ different strategies for different situations and integrate knowledge from different subject areas when required (Knapper & Cropley, 2000).

In a SEA classroom, L2 learners master all the same elements of phonology, syntax, lexis and pragmatics that traditional linguistics describes. However, instead of sitting in front of books trying to remember the instructional materials through reading, students physically experience, through perceptions akin to proprioception, the language they are learning. Proprioception is the sense of the relative position of neighbouring parts of the body. Unlike the six exteroceptive senses (sight, taste, smell, touch, hearing, and balance) by which we perceive the outside world, and interoceptive senses, by which we perceive the pain and the stretching of internal organs, proprioception is a third distinct sensory modality that provides feedback solely on the status of the body internally (<http://en.wikipedia.org/wiki/Proprioception>). L2 learners also learn strategies for learning a L2 that they can use in future. Furthermore, instead of trying to 'learn' the materials by themselves alone, students carry out their learning in a community of practice which is bound together through practices of SEA.

The next part of this paper consists of the following two sections: (1) a discussion of the theoretical underpinning that informs Somatically-Enhanced Approach (SEA); and (2) results of a study using SEA involving two groups of beginning Mandarin students at an Australian University.

THEORETICAL UNDERPINNING OF SEA

Selectivity is almost certainly a survival trait. What we select to use (tools) and to retain (knowledge or linguistic input) depends on our histories and personalities. In practice, when it comes to learning foreign languages, selectivity comes into play in ways that can be helpful or unhelpful. In learning Mandarin Chinese (MC), for example, some researchers suggest that English learners of a tonal language will probably choose to concentrate on consonants and vowels rather than tones and prosody of MC. That is when learning MC, English learners' ears seem to make a 'choice' as to what to hear in practice depending on the training they received through a lifetime of hearing and using English (Zhang, 2006). In other words, L2 students tend to make such choices in the target language using what Trubetzkoy (1939) refers to as the 'mother tongue sieve': those sounds they are familiar with in their mother tongue. Consequently, from the teaching point of view, at this stage, it is important to choose the learning material carefully so that the salient features of the target language are made more prominent to L2 learners. This way, L2 learners learn to select what is deemed relevant by native speakers in the target language communities.

According to the renowned Chinese linguist Chao Yuan Ren (Chao, 1930), MC has five tones; a level (1st tone), a rising (2nd tone), a falling-rising (3rd tone), and a falling tone (4th tone), plus a neutral tone. All of these tones are loosely tied to five relative pitch levels. Lexical tones on each word are essential as they are used

to differentiate meaning. For instance, a 1st tone on the syllable 'ma' means 'mother'; a 2nd tone on 'ma' means 'hemp'; 3rd tone on 'ma' means 'horse' and 4th tone on 'ma' means to 'scold'.

The activities in the classroom through the face to face (FTF) sequence in SEA are concerned with focusing on the rhythm and intonation of the language and not on consonants or vowels or lexical tones. The smallest unit of the language being presented is a sentence rather than individual words or compound words. All linguistic items were presented in their situational contexts (such as 'talking about my family', 'shopping' and so on) so that students are engaged in meaningful and useful language practice.

The procedures in SEA benefited from the work of the late Petar Guberina (1913-2005), a Croatian psycholinguistic and post-modern scholar who conducted research in the 1950s into speech perception. From his research, Dr. Guberina created the Verbo-tonal method (VTM) (Renard, 1975) of rehabilitation for people who had severe communication difficulties. Underlying the method is the conviction that all language use has evolved from spoken language and that speech is a social event. Furthermore, the 'meaning' of speech is transmitted not only by linguistic elements but also by the auditory and visual information present in the rhythm, intonation, loudness, tempo, pauses, the tension, and gestures of the speaker.

In addition, the design of the SEA method has also benefited from research findings on (i) how very young infants use prosodic packaging of clausal units to facilitate their memory for speech information (Mandel, Jusczyk, & Nelson, 1994; Mandel, Kemler-Nelson, & Jusczyk, 1996). Hirsh-Pasek et al (Hirsh-Pasek, Kemler Nelson, Jusczyk, Cassidy, Druss, & Kennedy, 1987) found that infants as young as 7 months old respond to prosodic markers in the input. (ii) a speaker's natural synchronization of speech and movements (Condon, 1985); (iii) therapeutic uses of movements for speech and hearing impaired children (Brüll, 2003; Dijohnson & Craig, 1971); (iv) Learning through multi-modalities is more effective for pronunciation training than a single modality (Derwing, Munro, & Wiebe, 1998).

In SEA, the selection of teaching/learning materials and the pedagogical measures are informed by the research findings cited above. For instance, the learning materials used in SEA are based on sentences with all aspects of intonation preserved. If we take heed from evidence obtained through L1 research that

infants use prosodic packaging of clausal units to facilitate their memory for speech information and to learn the syntactical organization of the language, then it is possible that adult L2 students of MC would also use clausal information to achieve the same purposes. Similarly, adult L2 students would probably also find that such sentences are easier to remember.

Brain research shows that an almond-shaped group of neurons located deep within the medial temporal lobes of the brain in complex vertebrates including humans, called the amygdalae, have been shown in research to perform a primary role in the processing memory of emotional reactions. Evidence from work with humans indicates that amygdala activity at the time of encoding information correlates with retention for that information. However, this correlation depends on the relative 'emotionalness' of the information. More emotionally-arousing information increases amygdalar activity, and that activity correlates with retention (<http://en.wikipedia.org/wiki/Amygdala>). The learning sequence in SEA in teaching MC contains steps that allow students to learn kinaesthetically (thus activating the amygdalae, visually, physically, and in an auditory manner thus encompassing a variety of learning modalities. Learning through these modalities is likely to stimulate amygdale activity at the time of encoding language information thus enabling what is learned to become deeply embedded.

A NEW METHOD OF TEACHING MANDARIN PRONUNCIATION TO BEGINNERS

The face to face sequence

Step 1: The first step in the learning process is a relaxation procedure adapted from the success of relaxation techniques used in language learning approaches such as the Lozanov approach in the 1980s. This relaxation step is also designed to reduce the language shock experienced by many learners especially when they are required to speak in the target language (TL). Furthermore, relaxation techniques appear to be an effective way of reducing first language conditioning so that it can be replaced with another set of muscular tensions and movements, in this case, the muscular conditioning of MC.

In step 1, students are asked to lie on their backs on the floor in a darkened room, to carry out mind-calming exercises for some five to ten minutes. This allows them to be more relaxed and therefore making their senses and muscles more receptive to the L2 language input. (for more details, see Zhang, 2006)

Step 2: Students and the teacher walk around in circles and hum along to the rhythm of the sentences without vowels and consonants (5 times). This activity is used to highlight the intonation and rhythm of MC. In this step, it is imperative that the teacher does not start by modelling or reciting the target sentence as such modelling would include vowels and consonants of the TL thus causing students to focus on what is familiar. The delayed exposure to consonants and vowels shifts students' attention to other often neglected aspects of the language such as rhythm, intonation, loudness, duration and pauses.

Step 3: The teacher claps to the rhythm and the beat of the language and then asks students to follow. This allows students to experience the rhythm of the sentence and observe different groupings of the words in a sentence. It also allows them to observe how stress, realized by length and loudness in a TL is tied to meaning. This step also enables the students to observe the key words in a sentence and realize that not all words are of equal value, and that to make oneself understood, it is only necessary to get the key words right. Such training is essential for learning to understand, appreciate and put into practice the strategy of prediction and advanced planning in listening comprehension.

Step 4: The teacher continues to walk in a circle and now introduces corrective gestures for particular parts of the sentence. These gestures are not codified gestures which are part of a communication system. They are artificial gestures that are important because they help to set up the overall body tensions needed for production of the required speech. For instance, in proposing a pedagogic measure to train learners' awareness of tone registers in MC, Zhao (1988) determined that in mastering the four tones, mastery of the 1st and 4th sets the boundary of the voice range needed for producing intelligible MC. Therefore, in teaching MC one very meaningful pedagogic measure for teaching the 4th tone is to get students to hum the sentence and then stamp the floor heavily when it comes to producing a fourth tone in a sentence. Stamping the floor has the effect of tensing up the muscles in the body to produce a very low frequency sound.

In teaching the 1st tone in MC, the teacher instructs her/his students, to have their palms facing up and to then raise or stretch both hands upwards as though attempting to touch an area of the ceiling. This gesture allows students to experience the tenseness of the body upwards in

producing the first high level tone (the first tone). Gestures are only introduced at the appropriate syllable in a sentence (See step 5, below).

Students are also instructed to adopt a forward slumping of the shoulders, then with palms up, to act as if pushing a heavy object uphill for the 2nd tones. For the 3rd tone in MC, as the production of the 3rd tones needs a relaxed posture, no special gesture is employed except to advise learners to relax.

It is very common to find that during the humming and clapping steps some learners still fail to perceive the rhythm and melody of the sentences correctly. However, experience testifies that when gesture is added, learners are able to produce the correct prosody of the sentence while developing 'self synchrony' with the target language. In other words, gesturing provides students further ways of manipulating the body tension to achieve certain rhythmic structures.

Step 5: Mouthing the words: In this step, the teacher instructs students by saying 'Continuing with the movements, now mouth the sentences while I say them out loud' (Step 5). For the first time in the learning sequence, so far, students are hearing a sentence which includes the consonants and vowels. They are asked not to say anything but merely to mouth the words. Mouthing the words gives students the opportunity to practice the articulation of the sounds of the words without, in fact, placing them on an intonational background actually produced themselves. This technique should lead to a reduction in the number of articulation errors.

Step 6-7: Adding words to the intonation patterns: The teacher then says 'Now repeat after me, and then add words to the intonation.' This again is done for five times (Step 6). The teacher then instructs each individual to repeat the sentence in chorus and check that each student is reproducing the sentence correctly (Step 7).

Steps 2-5 isolate each element of articulation e.g. humming, clapping and mouthing before restoring them to a normal context (steps 6-7). Consequently, by the time students are actually asked to repeat a full sentence, they will have practiced each of its constituent elements many times. They will look forward to achieving success in the next step of the process which will follow naturally and which should present little additional difficulty.

The rest of the FTF sequence involved activities that further highlighted the melody of the

sentences involved. Throughout the learning sequence, translation and writing down the sentences are not needed until the last moment. By the time students come to write down the meaning, they will have already internalized and memorized the melody of the sentences. The activities in The FTF sequence offer students a range of physical ways for remembering MC sentences learned beyond the set contact hours each week. These measures also set up a series of learning steps that could be used for self-access learning at home thus promoting lifelong learning.

Course materials

The course materials used in the present study using SEA to teach MC consisted of a printed textbook, a course data CD-ROM, an Audio CD-ROM. On the data CD-ROM, each new vocabulary item, new sentence or phrase in the teaching materials is linked to a sound file. An audio CD-ROM of the sound files was also provided with the course materials.

THE STUDY

Research design

The objective of the FTF teaching procedure used in this course was to produce students who can speak intelligible MC in limited conversational contexts. Since the materials used were based on conversations containing sentences with all the prosodic characteristics of the language intact, the data collected in the research also consisted of spoken dialogues produced by beginning students in the Control Group (CG) (N=10) and the Experimental Group (EG) (N=12) using language covered in the first 6 weeks (after 30 hours of face to face contact) of their MC study. Students in the CG were not taught with SEA but they used the same learning materials as the EG group of students. Students in the EG, on the other hand, were taught by SEA. All of the students speak English as their first language, had no prior exposure to or learning of other tonal languages, and were total beginners of MC. Students were not allowed to read a script either in English translation or in characters. Therefore, the oral performances were undertaken totally from memory and students' pronunciation would not have been affected by the need to recognise characters or influenced by pinyin (the Chinese romanization).

The spoken performance data collected from both groups were marked by 9 native speakers of MC. All native speakers came from Beijing, China and are considered to be native speakers of MC. None of them were language specialist. They did not receive any practice in the rating task prior to the assessment session. Assessors

were asked to listen to conversations made by the 22 subjects and rate the naturalness of each individual's speech on a scale of 1 to 9 with 1 being totally unnatural and 9 being of a native speaker level. The markers did not know which group each student belonged to at the time of marking. The conversations were presented to the markers in random order. A T-test was used to find out whether there were significant differences in the *ratings* of the nine native speakers of MC. The consistency of the native speaker ratings of the students' oral performance was also calculated using the Cronbach Alpha reliability test in SPSS.

In addition, end of semester questionnaires and one to one interviews with the researcher about the learning process were used to elicit information on learning strategies that learners used in their MC learning. The researcher was also the classroom teacher of these students.

RESULTS

Result of the perceptual rating by native speakers

Subjective perceptual results of the nine native speaker markers confirmed that the students taught by SEA from the EG performed better than those in CG who were not taught by SEA. Students in the EG achieved an average rating of 5.33 out of 9 (a native speaker) with a standard deviation of 0.82 compared to the CG's average rating of 4.51 with a standard deviation of 0.73. The difference in the means of the perceptual rating scores given by the markers was significant at $p < 0.05$ level ($p = 0.02$). Furthermore, the level of agreement reached by the nine native speakers was very high as indicated by an inter-rater reliability score of 0.92.

Quality of speech produced by students in the CG and EG

The quality of the conversations produced by both groups differed a great deal. The 10 students in CG produced sentences with a mean length of utterances (MLU) ranging from 2.6 to 8 with an average MLU of 5.7 syllable per utterance. In contrast, 12 students in EG produced sentences with a mean length of utterances (MLU) ranging from 5.8 to 11.85 with an average MLU of 7.77 for the entire group. Sentences longer than 10 syllables were defined as longer sentences. EG produced, on average, 6.36 long utterances per student compared to the CG. The interaction pattern in the students' conversations in the CG was mainly in the form of question and answer. In contrast, students in the EG provided rich contexts in their conversations.

Results of the qualitative data collected from CG and EG

The face-to-face interviews were conducted using a number of guiding questions asked by the researcher. From five students in EG, the interview data showed that students in EG were much more active in their learning than the CG. The categorization of strategies used to analyse this data is based on those of Oxford (1989). However, these strategies were not provided to students in either group at the beginning of the semester in the learning process. One stand out performance strategy used by students in the EG group was the amount of practice they used in their learning. In the five students' interviews, the strategy of 'practicing' was mentioned an average of 7.4 times compared with the 2.2 times by the students in CG. Furthermore, students in EG used a wider range of strategies in their learning.

The use of physical movements and gestures in the learning MC using SEA clearly made students less inhibited and more motivated to speak. Furthermore, they gained a number of new ways, such as how to employ action, to enhance their learning. The enthusiasm for SEA was further reflected in the results of the end of semester questionnaire which showed that when comparing the amount of time on task by both groups of students, EG students spent 3 times longer (10 hours per week versus 3 hours per week) than the CG students in their self-study even though 50% of the students in EG were mature age students who worked full-time.

DISCUSSION AND CONCLUSION

Research findings of this study suggest that SEA can effectively develop more proficient speakers of MC. The learning sequence in SEA and the data and audio CD-ROMs make the process of learning MC much more motivating for students. So far, SEA has only been successful in teaching of MC and Thai (Zhang & Buranapatana, 2008). Theoretically, it can be applied to the learning of any languages as the principle of making what the students select coincide with the needs of the target language communities still holds in the teaching of other languages. SEA can also be applied to alphabetic languages such as English, for example, to cope with the lack of stress in L2 learners' spoken speech (Benrabah, 1997; Hahn, 2004). In a recent small-scale application of SEA to L2 English learners, in some students' speech there was sufficient proof to show improved word stress, better phrasing and pauses after using SEA for a total of 4 hours. Their spoken form was perceived by IELTS' examiners to be clearer and more fluent (Johnson, 2006). Ideally, teachers should possess some understanding of acoustics phonetics, psycholinguistics, applied

linguistics and cognitive psychology when applying SEA. However, an enthusiastic, open-minded teacher can achieve similar results if the procedure in SEA is followed closely.

CONCLUSION

The learning of foreign languages using SEA is different from an episode of learning in traditional foreign language courses in which learning stops outside the door of the language classroom. Through procedures that enable students to stimulate the senses of the body to learn, not only do we achieve the objective of a foreign language class (i.e. teaching them the target language), we also build into their bodies a set of tools which they can activate beyond the classroom door. This clearly contributes to a learner's lifelong learning. That is to say, it is not sufficient to merely provide students with, say, Oxford's list of learning strategies (Oxford, 1989) at the beginning of a semester and tell students to use them because they are good for language learning. For instance, the strategy of 'Applying images and sounds' is hard for students to apply because they do not know what they need to do. In SEA, the procedures also clearly utilize image making and visual representations a great deal but the difference is that in SEA, these visualizations or images of language are created through the students' bodies by students thus making them the originators of such visual images rather than receivers of images or visualizations provided by teachers. The findings of this research demonstrate that allowing students to be in charge of their learning both mentally and physically is clearly motivating for students and enables them to achieve a higher level of intelligible speech in the early phase of their foreign language learning.

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