

LEARNING AND EARNING: GRADUATE SKILLS FOR AN UNCERTAIN FUTURE

Philip C. Candy
University of Ballarat

ABSTRACT

It is often claimed that universities are among the most enduring institutions in the western world. In part this is because they perform certain distinctive functions that are valued in our society (such as the disinterested pursuit of the truth, the preservation of our cultural heritage, and acting as a social conscience and critic). In part, however, it is also because they have been extremely adaptable; reinventing themselves both in anticipation of, and in response to, changing social imperatives.

In recent years, universities throughout the world have had to adapt to a widespread requirement to be more closely aligned with the needs of the economy, and to produce employable graduates. This demand has come from at least three directions; from Governments, from employers and the professions, and from students and graduates themselves. Accordingly, universities have had to be more attentive to the demands of employment, which subdivide into two elements: the technical knowledge and skills required to function effectively in the workplace, and a set of generic attributes or personal transferable skills such as communication competence, teamwork, computer skills, and personal organisation.

Given the complexity of most modern workplaces, this represents quite a challenge in its own right. But in addition, the world of work is constantly changing, and, no matter how well prepared a graduate might be through his or her studies, it is certain that continuing learning will be required in order to keep abreast of changes and, if required, to change careers entirely. As a result, university courses must prepare their graduates for a lifetime of continuing learning; some of which will be subject-specific, and some of which will be generic and context free. Accordingly, the skills and attributes of lifelong learning sit on the intersection between, and to an extent unify, these two aspects of university study.

However, as already mentioned, universities are expected, and indeed are funded, to perform other functions besides vocational preparation, including supporting the pursuit of knowledge for its own sake. Thus they have a responsibility to provide for the lifelong learning needs of their students, their graduates and, indeed, of other members of the community. This has implications not only for what and how they teach, but also for other aspects of how they are organised and how they relate to other education and training providers within the community.

In this paper, it is argued that a concern with lifelong learning, and with the skills and attributes of the lifelong learner, unites the historic and the contemporary roles of universities, their development of generic and of situation- or context-specific outcomes, and their social as well as their academic mandates. As such, it represents a major unifying construct and a robust theoretical framework for universities, especially in times of rapid and pervasive change.

INTRODUCTION

Throughout the Western world, universities in the past decade or so have been undergoing a process of 'massification,' whereby access to higher education has moved from an élite and highly selective process to one which touches an increasing proportion of the population (DEET & OECD, 1993). In most OECD countries, for instance, the proportion of young people continuing with higher education after school has risen from less than 5% to around 30% of the eligible cohort.

Clearly, such a dramatic increase in higher education enrolments has had major impacts on universities: increasing class sizes; placing greater stresses on teaching spaces, libraries, computing laboratories and other infrastructure; leading to more diverse student groups; and requiring changes in both curricula and teaching methods. It has also been accompanied by changes in public attitudes towards higher education, including the expectation that universities will function more directly and unambiguously as training grounds for people to join the economy. Many traditionalists resent this shift, pointing to the historic role of higher

education as a social critic and conscience rather than as an arm of economic policy. However, the pressure in favour of greater utilitarianism emanates simultaneously from Government, employers and students alike and, as such, has proven hard to resist.

One of the consequences of this vocational emphasis has been a stress on producing graduates who are 'work ready,' especially in the sense of being expert in particular fields of practice. In support of such an orientation, professional associations ranging from engineering to nursing, from accounting to librarianship, and from medicine to teacher training (and many others as well) engage in extensive processes of course review and accreditation to ensure that graduates in those disciplines are eligible to practise in their chosen fields.

However, specialist expertise is not enough, and employers have increasingly emphasised that graduates also need to be adaptable and flexible; and that they need to be able to: manage themselves and others, communicate well orally and in writing, keep up to date in their chosen field, be technologically literate, and generally to manifest a range of more generic or personal transferable attributes in addition to their subject-matter skills and knowledge.

This demand has confronted universities with an additional challenge; namely, how to develop (and, once developed, how to evaluate) such attributes, especially when courses are already filled to overflowing with disciplinary content – much of it mandated by professional associations and registering bodies. Many universities have responded to this challenge by specifying for their graduates a set of generic attributes or transferable skills, and by modifying the curriculum, and altering their teaching and assessment approaches, in order to provide such additional learning outcomes. The story of how they have done so is a fascinating case study in adaptation and responsiveness, particularly in the online or virtual environment where some of these attainments may be difficult to develop or to verify.

But there is more. The extraordinarily rapid pace of social, technological, cultural, economic, legal, and educational change throughout the world, combined with the increasingly global interconnectedness of societies and economies, emphasises the need for people who are not only technically proficient and employable, but who are adaptable and responsive; in short, who are capable of continuing learning after they have graduated. As a consequence of this realisation, there is now increasing attention within higher education to the production of graduates

with this elusive but valued attribute; namely, the willingness and ability to go on learning once the scaffolding afforded by the educational institution is removed.

It is the purpose of the first part of this paper to explore major lines of development in this domain and, in particular, to address the issue of how universities and other higher education institutions can *assist students and graduates to develop the skills and attributes of lifelong learners*.

However, it is also argued that helping to produce lifelong learners is only part of the role for universities, which also have an obligation to their graduates, and indeed to other members of the community, to provide opportunities for further systematic learning. Accordingly, the second part of the paper will focus on how universities and other higher education providers can *provide lifelong learning opportunities*. It is concluded that lifelong learning provides a valuable unifying theme for the work of universities and, indeed, that this has historically been the case.

DEVELOPING LIFELONG LEARNERS THROUGH HIGHER EDUCATION: AN AUSTRALIAN STUDY

Background to the study

A concern with promoting the ability to go on learning can be traced back to the very origins of higher education. However, in Australia at least, the issue has been thrown into sharp relief in the past couple of years by several government reports. In 1990, the Report of the Senate Standing Committee on Education, Employment and Training – *Priorities for Reform in Higher Education* (the Aulich Report) – had this to say:

"Australia is producing graduates who all too frequently are not familiar in any disciplined sense with the society in which they are going to practise their chosen profession, who are not critical, analytical and creative thinkers, whose education does not provide the basis for adequate flexibility, *who are not sufficiently attuned to the need for lifelong learning* and who are not good communicators. In short we are producing highly trained technicians who are under-educated in the broader sense of the term" (Aulich Report, 1990, p 3, emphasis added).

At least some of these ideas were picked up again and echoed a couple of years later in the Higher

Education Council's report *Achieving Quality*, where it was stated:

"It is broadly agreed that if higher education is to enable graduates to operate effectively in a range of activities over a period of time, a lifetime in effect and not just immediately after the studies are completed, then it must *develop the characteristics that support learning throughout life*. Discipline specific skills in many areas have only a short life, and what will be needed in even the medium-term cannot be predicted with any great precision (*Achieving Quality*, 1992, p 20, emphasis added).

Whilst it might be appealing to imagine that everyone who arrives at university is already an accomplished and versatile learner, capable of taking control of his or her learning both in the academy and beyond, in fact many people lack this capacity. Indeed, the 'massification' of higher education already referred to has meant that the number and diversity of students has increased, which in turn has increased the need to help them with the skills and attributes required for continuing learning.

In 1993, the Australian Higher Education Council and the Australian Vice-Chancellors' Committee, jointly advertised for a consultant to undertake a study of what was somewhat inelegantly called 'The enabling characteristics of undergraduate education' (Higher Education Council, 1993). The purpose of the proposed study was,

"to identify whether and in what ways the content, structure, teaching modes and assessment procedures of undergraduate degrees, and the activities of student support services, are designed to lead to the formation of attributes which both enable and encourage graduates to become lifelong learners" (Higher Education Council Project Brief, 1993, p 2).

Members of the Academic Staff Development Unit at the Queensland University of Technology, under the leadership of the then Director – Professor Philip Candy – successfully bid for the consultancy, and were commissioned in July 1993 to undertake the project. As outlined in the submission, the purposes of the project were:

- i) to define the concept of lifelong learning and to enumerate the qualities and attributes of people capable of such learning;

- ii) to identify, from a study of the literature, those characteristics of undergraduate education that are held to enhance students' capacity for lifelong learning;
- iii) to assess, mainly from a study of mission statements and other public documents, the extent to which Australian universities actively seek to develop the capacity for continuing lifelong learning in their graduates;
- iv) to examine in detail a number of courses and programs of study, and to evaluate the ways in which the content, structure, teaching modes and assessment procedures, as well as student support services, contribute to the attainment of the above-mentioned goal;
- v) to provide case studies from a range of institutions, disciplines and types of awards; and
- vi) to offer recommendations on the staff [i.e., faculty] development and curriculum development implications of adopting a lifelong learning perspective in undergraduate curricula.

The study itself was undertaken principally between July 1993 and February 1994, although the Report was not published by the Higher Education Council until August 1994, under the title *Developing Lifelong Learners Through Undergraduate Education* (NBEET Commissioned Report No. 28). The Report, which is some 300 pages long, consists of two parts: some generic findings and overall recommendations in the first part, and ten detailed case studies in the second part. In the sections that follow, the main components of the study are outlined, before turning to a very brief consideration of the Report's major findings.

Approach to the Study

To give an overview of the Report and how the study was undertaken, a compressed picture of the project will be provided. It started with what one would normally expect – a literature review – through which approximately one thousand items of English language literature were identified. Of these, some 600 were obtained and read. Advertisements were placed in two national special interest newspapers; the *Australian Higher Education Supplement* and *Campus Review*, as a result of which some sixty submissions were received; from individual graduates, from professional societies and associations, from employers, and from institutions of higher education. In addition, the researchers examined the

mission statements of every publicly funded university in Australia; interestingly, it was found that of a total of 37, only 8 mentioned the development of lifelong learning as part of their mission.

As a kind of 'snapshot' of what was going on generally in higher education, the course coordinators of 18 randomly selected undergraduate programs across Australia were approached and asked for documentation about each course. This gave a sense of what a representative group of courses might be said to be doing across the Australian higher education system. In order to identify some 'exemplary' undergraduate degree programs, every Disciplinary Review in Australia since 1980 was examined, and professional societies and associations, as well as accrediting bodies, were also specifically approached. Vice-Chancellors were requested to nominate which of their undergraduate degree programs they thought best exemplified a commitment to the principles of lifelong learning. Using these various approaches, an attempt was made to 'triangulate' so that more than one source was saying "this is an interesting course," and as a result, 13 examples of particularly good practice were identified. It was also decided to profile seven student support services, libraries, computer-based education facilities, or learning and study skills units.

Having identified the programs to focus on, the Associate Investigator, Dr Gay Crebert, actually did a lot of the empirical work, spending nearly seven weeks undertaking interviews with faculty members, students, and graduates across Australia. For every one of those 13 programs, she interviewed first year and third year students, graduates, employers, teaching faculty, and support staff. Overall, she undertook 160 interviews, which yielded 3000 pages of interview transcripts. These were analysed in two ways. To write the body of the report, a horizontal slice – such as the responses of all the first year students, all the graduates, or all the teaching faculty – were taken and examined. In this way, it was possible to search for underlying themes and recurrent issues. To write the ten case studies that comprise the second half of the report, the investigators explored what everybody associated with each particular program said about it; aiming for what ethnographers call 'thick description.'

Types of Learning after Graduation

Central to this study, was an attempt to identify the qualities or attributes of a lifelong learner, so that programs could be examined in order to identify both the extent to which and ways in which these attributes are intentionally produced in graduates.

Before doing so, however, it was necessary to develop a taxonomy of types of learning in which people have to participate after they graduate. It was found overall that, although academics may know about their students' professional competence, about how they fit into the workplace, and about their employability, most of them have given little thought to the issue of how much or what sort of learning their graduates actually undertake after leaving university. Nevertheless, from the literature as well as from interviews with graduates and employers, four categories of such post-graduation learning were discerned.

The first is *workplace-based learning*. Although there is a huge body of literature about the kind of learning that happens in the workplace – some of it mediated by trainers, some of it self-planned, and some of it adventitious and serendipitous or accidental – no one knows precisely what sort of workplace-based learning any particular graduate, or, for that matter, any cohort of graduates is likely to encounter. To take law as an example; about 50 percent of law graduates do not practice the law as such. Of those who do, some will become sole practitioners in country towns; some will go into a small firm, some into a large firm or a multinational; some might work in the corporate law department of a big company, a bank or a government department; and some might work for an international agency or for a non-profit company. All these people are practising the law in one form or another and learning about the demands of their jobs; however, one degree is supposed to adequately prepare people for such a diversity of potential learning opportunities and trajectories. It is clearly not just a single unitary path that graduates follow in learning at work.

The second category of learning is *continuing professional education* which may be offered by a professional association, a university, a government agency, or a 'for-profit' provider. In many professions people are obliged, or at least expected, to attend these activities to maintain currency or, in other words, to upgrade and to keep up with new developments. Such learning commonly resembles that which is undertaken in university, although there are also significant differences, usually including the absence of formal assessment requirements.

A third type of postgraduate learning is *further formal study*; although there are a number of subheadings within this. Some undergraduates finish a degree and then do another one. Others undertake postgraduate awards, which may be postgraduate in time, or in level, or both. There is also an interesting group of people who, after a degree, undertake a qualification in a vocational

college. In Australia, this trend was found to be making a significant difference to the culture of teaching and learning in vocational education settings, as well as confronting vocational educators with the need to provide reciprocal pathways in terms of academic credit and advanced standing for students who already possess a qualification higher than that for which they are studying.

The fourth and final category of post-graduation learning is *self-directed learning* which comprises the huge – indeed virtually unlimited – sea of opportunities whereby people as adults and as citizens seek 'to be,' 'to become' and 'to belong.' Since the conduct of this particular study, and the appearance of the *Report*, this category has been augmented – perhaps even transformed – by the spread of the Internet, an aspect of lifelong learning that deserves a study in its own right.

Attributes and Qualities of the Lifelong Learner

After considering these various categories of learning, the next question was, "What kinds of skills and attributes, abilities and predispositions would a person need in order to be able to cope with such a range of possible learning contexts and challenges?" From the literature and from interviews, almost 100 attributes were identified; many of them turned out to be identical or else very closely related, although often expressed in different words. These many attributes were content analysed, and clustered to produce the following five:

- an inquiring mind,
- 'helicopter vision',
- information literacy,
- a sense of personal agency and,
- a repertoire of learning skills.

Each of these is discussed in greater detail in the *Report* (Candy et al., 1994), and is also illustrated by one or more of the case studies for the programs profiled. In retrospect, it might be argued that a mistake was made by focusing so heavily on personal, rather than interpersonal aspects of learning. Accordingly, on reflection, a sixth attribute should probably be added:

- interpersonal skills and group membership.

Armed with this profile of the lifelong learner, the investigators then turned their attention to various aspects of the undergraduate experience which might plausibly contribute to developing such attributes. The terms of reference for the study demanded attention to five components in

particular: the content of the curriculum, the structure of the curriculum, teaching approaches, assessment strategies, and student support services. Each of these dimensions is dealt with below.

Content of the Undergraduate Curriculum

The first of the five terms of reference was the content of the curriculum. Clearly it lay well beyond the intent of the project, not to mention the expertise of the researchers(!), to make recommendations about the detailed content that should or should not be included in any given degree; this is a decision for the content-matter experts who design and teach each individual course. However, it was recognised that every undergraduate program comprises more than just substantive content or applied skills and knowledge. Each degree is made up of three principal components: applied skills and knowledge, a firm foundation of general knowledge, and certain personal and transferable skills and abilities. However, while every undergraduate degree might have these three components, their relative weighting was found to vary from case to case.

The study was quite adamant in its argument that lifelong learning skills should be placed – conceptually at least – at the heart of every undergraduate degree program. At present, most undergraduate degrees are dominated by substantive disciplinary content: in some degrees such as accounting, engineering, and information science, as much as 90 percent can be prescribed. Wrapped around that disciplinary content is a thin veneer of generic skills: perhaps some lifelong learning and a few contextual studies. However, because these components are at the edge, they are marginal. The *Report* suggested the reverse; namely, that all undergraduate degrees in Australia should aim to have at their heart, the development of some lifelong learning competencies. Three reasons for this are advanced.

First, the document *Achieving Quality*, says that certain generic attributes should be expected of all Australian graduates, and one of these is the ability to go on learning. Secondly, if pride of place is given to learning-to-learn, then the learning of complex and often rapidly changing disciplinary knowledge is likely to be enhanced, accelerated and improved. Third, the skills of learning-to-learn will endure long after the detailed and specific knowledge is forgotten. Although it is perhaps a little trite, the old maxim is nevertheless true: if you give somebody a fish, you feed them for one day; if you teach them how to fish, you feed them for a lifetime. The same is broadly true of education: if,

as an educator, you teach somebody how to learn, you are giving them arguably one of the greatest of gifts; namely, the ability to learn things after you have disappeared from the scene and, indeed, the ability to shape their own destinies.

Structure of the Undergraduate Curriculum

In the same way that it is impossible to legitimately comment on the *content* of every course, except in the abstract, it is also inappropriate to specify the ideal structure of each and every course in every field. However, the study showed that in order to produce lifelong learners, an undergraduate degree program should ideally provide:

- a systematic and integrated introduction to the field of study,
- a comparative or contextualised framework for understanding the field,
- an opportunity to broaden the student and develop generic skills,
- appropriate freedom of choice and flexibility in structure and,
- a structure for the incremental development of self-directed learning.

Each of these will be examined in turn; firstly, *the systematic and integrated introduction*. It was found that many courses, by bending over backwards to respond to student needs and interests, and by being extremely flexible and accommodating, actually never introduce the students in any coherent way to a body of disciplinary knowledge. The consequence of this is often that graduates of these programs have breaks and discontinuities in their knowledge base which show up particularly when they attempt to learn more in later life, and especially if they choose to undertake postgraduate study. Some sort of solid grounding in an area guards against this possibility, while at the same time introducing students to the modes of thought in the particular discipline.

The second criterion has to do with providing graduates with *a vantage point from which to view their field of study* and practice both its antecedents and its consequences. If somebody understands the limitations of their field, about how knowledge is created and about where it is going, they are not so much narrowly trained as more broadly educated.

The third criterion relates to *broadening the students and developing their generic skills*. This is important not least because society-at-large has the expectation that graduates will be better rounded and more fully educated than those with a narrow vocational preparation. It is also important because,

while much disciplinary knowledge is transient, there are certain accomplishments such as skill in communication, team membership and team leadership, the ability to find use and evaluate information, and a capacity for critical thinking, which should be the hallmark of *any* graduate irrespective of the field in which he or she has studied. Although it was recognised that in many fields there is an abundance of disciplinary content which has somehow or other to be accommodated within the ambit of the degree, in terms of lifelong learning, space must also be found – or made – for broadening the students.

The fourth area is also something of a challenge; *freedom of choice and flexibility*. It is a challenge because it involves giving up some of the control that academics traditionally exert over the curriculum. It is a challenge too, because different students might choose patterns of subjects or alternative pathways through them, which can seem messy and inefficient. And it is also a challenge to reconcile such freedom and flexibility with the goal of providing 'a systematic and integrated introduction to the field of study', because students may wish to exercise choices that will lead them away from, rather than towards, a comprehensive understanding of the subject. However, notwithstanding these problems, flexibility and adaptability were found to be essential features of the undergraduate degree. Increasingly, many students are mid-career professionals or people seeking particular skills or knowledge, and degree structures must allow for choices in order to meet the needs and interests of such students.

Finally, there is *the incremental development of self-directed learning*. This study underscored the widely-held view that a course of study should ideally seek to devolve to learners a greater share of responsibility for valued instructional functions. This is not the same as dropping students into the 'deep end,' and forcing them to 'sink or swim.' But one of the hallmarks of the lifelong learner is the ability to take control of one's own learning, and there are compelling reasons for intentionally and progressively developing these skills throughout the undergraduate experience. In this way, by graduation, the students have had experience of setting goals, researching topics, and generally learning on their own. The 'staged withdrawal' of faculty over the period of three or four years, however, should be both explicit and agreed, so that students recognise this as a legitimate part of the educational experience, rather than regarding it as an abdication of responsibility on the part of the academic faculty.

Teaching approaches and assessment strategies

In addition to considering the content and structure of the curriculum, the study sought to identify those teaching approaches and assessment strategies that are likely to enhance the continuing learning of students after their graduation. Unfortunately, this study was not longitudinal, and it is therefore impossible to state with certainty which particular approaches work. Nevertheless, there is enough evidence to suggest that the following teaching approaches are most likely to encourage lifelong learning skills and orientations: those which encourage students to engage in self-directed and peer-assisted learning, those which involve experiential and real-world learning, methods which make use of resource-based and problem-based learning, and those which include reflective practice and critical self-awareness.

It was also argued that universities should, wherever practicable and appropriate, make use of open learning and alternative delivery mechanisms. This is not simply because they allow for freedom of choice and individual learning style preferences, but on the pragmatic grounds that much post-graduation learning – especially in professional and work-related contexts – actually occurs this way. Accordingly, it is argued in the *Report* that programs of undergraduate study should ideally introduce students to these technologies and approaches, so that they are comfortable and competent with them when they graduate. As mentioned earlier, the ubiquity of the World Wide Web both in universities and in the community, makes this particularly vital today.

Turning to the issue of assessment, a good deal of recent research indicates that students are particularly sensitive to the assessment requirements that govern their courses. Many of them are, in Miller and Parlett's words, "cue conscious" (1974) and are particularly attuned to the subtle – and not so subtle – hints that academic faculty members give about what is to be assessed. If, however, students are accustomed to forms of assessment that encourage 'reproductive' rather than 'transformational' learning – in other words which simply test their factual recall or treat knowledge as decontextualised fragments of information (as many multiple choice tests do) – then they may have difficulty in adapting to the complexity and fluidity of learning in real world settings. Accordingly, the *Report* recommended assessment practices which evaluate what, rather than how much has been learned; which provide an opportunity to teach as well as to test; which depend largely on peer- and self-assessment; and which provide timely, constructive feedback that

results in congruence between course aims and learning outcomes. Each of these assessment practices focuses on the learner, rather than on the teacher, and is accordingly more likely than conventional approaches to yield graduates who will be able to critically evaluate their own performance in whatever context they find themselves.

Student support services

Finally, the study involved looking at the provision of the following student support services that are linked with lifelong learning outcomes:

- libraries and learning resource centres,
- computer-based education facilities and,
- study skills and learning support units.

The study profiled seven of these student support services, in an attempt to distinguish those that concentrated simply on helping students to be better students, from those that had a broader mandate and sought to help the students to become better *learners*. There is a whole chapter about them in the full *Report*; however, in brief, it was discovered that, in many of these service units, there is an enormous reservoir of expertise that needs to be harnessed to the purpose of producing lifelong learners. The best way of achieving this is through routinely building such institutional support into undergraduate programs, and through treating the staff who work in them as full and equal partners in the design and delivery of the learning process.

A climate of intellectual inquiry

After completing the survey of the five basic building blocks of the undergraduate program – curriculum content, curriculum structure, teaching methods, assessment approaches, and student support – it became apparent that a university could be attending to all five of these things and yet still not produce lifelong learners. This was an intriguing problem, and so the graduates were asked whether this was the case, and if so, why? Their answers indicated that, for many of them, lifelong learning did not seem to have been valued in the departments and programs where they had studied. In their experience, it was not something they saw being modelled by the faculty; indeed, in many cases, there was no real sense of intellectual excitement in the department.

Thus, perhaps the most important finding about developing lifelong learners, though one which was not anticipated in the terms of reference, is the influential role played by the intellectual ambience of the school or department; in particular, the extent

to which the faculty members themselves are continuing lifelong learners. An orientation towards lifelong learning is not developed simply by the application of principles and guidelines – no matter how comprehensive, enlightened or well-intentioned – in a routine or formulaic way, but rather through the complex interaction of the "views and values of senior faculty, the attitudes and practices of academics and support staff, and the history and culture of the organisation" (Candy et al., 1994, p 183). As the *Report* itself states:

"The most vital determinant of whether or not graduates choose to become lifelong learners is the climate of intellectual inquiry in the institution, and the single most important factor influencing this climate is whether or not the academic faculty members themselves manifest a lively curiosity, a passion for their subject and a predisposition towards being continuing lifelong learners themselves" (Candy et al., 1994, p xiii).

Summary

It is customary to divide the work of higher education into three domains: teaching, research, and community service. In each of these three areas, the purpose is to induce or to facilitate learning, although the beneficiaries differ: in the case of teaching, it is the undergraduate and postgraduate students; in the case of research, the researchers themselves and other scholars; and, in the case of community service, the learners are members of the community-at-large. Since learning is never finished, it follows that the mandate of the university must be to foster and support lifelong learning.

If this argument is accepted, it is apparent that lifelong education is more than just an attractive slogan; it has significant implications for many aspects of higher education. However, one of the most interesting and somewhat salutary learning outcomes from this national study was that if universities actually did what is already known to be good practice, they would be much closer to the ideal of producing and supporting lifelong learners. In this regard, the *Report* drew attention to the various publications of the Higher Education Research and Development Society of Australasia, even reproducing as an Appendix, the Society's four page resource paper: 'Challenging Conceptions of Teaching: Some Prompts for Good Practice.' This consists of 47 questions designed for individual academics, groups of academics, teaching teams – maybe even whole departments – to spend a couple of hours reading through and talking about, as an aid to reflection on their practice. Although

question 17 is, "What approaches do you use to help students reflect on their own learning intentions, behaviour and practice and to develop effective skills for lifelong learning?" in fact the whole document is really about enhancing students' learning experiences at university and beyond.

THE PLACE OF HIGHER EDUCATION IN SUPPORTING LIFELONG LEARNING

From the foregoing, it is apparent that universities can do much to develop and to enhance the lifelong learning skills and attributes of their graduates. However, the story does not end there. As indicated earlier in this paper, universities actually have a dual mandate with respect to lifelong learning: the *development of lifelong learners*, and the broader *provision of lifelong learning opportunities*. Attention will now be focused on the second domain.

It is widely acknowledged that universities are not only important in the practical and instrumental business of producing employable graduates, they are also major repositories of educational expertise and of culture. Thus, whatever their role in developing lifelong learners, they have a broader role in terms of promoting lifelong learning within their communities. In a paper entitled 'Lifelong learning: An enduring mandate for higher education,' Candy & Crebert (1991) suggest a useful model for conceptualising the role of the university – or other higher education institution – in terms of lifelong education.

They begin with the notion that the university has three principal ways of relating to other learning contexts. The first is its relationship with the school sector, adult and community education, and various bridging courses that provide alternative routes into higher education. The second is the relationship which higher education institutions enjoy with 'out-of-school' learning contexts where some part of the students' learning occurs in the home, the workplace, or the community. And the third is the relationship which higher education institutions enjoy with their graduates (and indeed with other members of the community) through postgraduate study or, more commonly, through the provision of continuing education programs, public lecture series, and various forms of community outreach. These three dimensions are referred to as 'vertical linkages,' 'sideways linkages,' and 'forward linkages' respectively. Such a model, although somewhat simplistic, at least provides a framework for examining the university's systems and structures in the context of lifelong (and lifewide) education.

Vertical linkages

In the past, and in some higher education systems still, access to university has been for a privileged few, usually via selective and academically streamed high schools. However, as already discussed, since the 1960s in the United States, and more recently elsewhere, access to higher education has become increasingly open (DEET & OECD, 1993). One corollary of this so-called 'massification' of higher education has been much greater diversity in the student body in terms both of its demographic and educational profile. A second corollary has been the creation of multiple entry pathways from school and adult education programs, and even, in some cases, simply on the basis of demonstrated potential and life experience.

For higher education institutions, the consequences of this shift have been significant. Not only are many undergraduate class sizes considerably larger than in the past (with implications for teaching approaches used and the availability and practicality of individual academic advising), but the diversity of student backgrounds has led some institutions to introduce bridging programs, intensive study skills workshops, and even common first years to ease the transition and to provide an element of breadth into courses.

To facilitate these vertical linkages with other education and training providers, universities have also had to become more accessible, and even entrepreneurial, in making themselves attractive to potential students. Many universities have established linkages with targeted secondary schools and vocational colleges, in some cases extending down into early years of secondary schooling. It is increasingly common to find in Australia, New Zealand, the United Kingdom, and elsewhere, university students who are engaged in mentoring secondary students; in some cases those who are gifted and talented, and at other times those who are at risk of failure. Likewise, lecturing staff often provide intensive summer or weekend schools for upper secondary students. Vertical linkages can also be enhanced where academic staff are involved in offering in-service education and orientation to school teachers and college lecturers, encouraging them to promote further study to their students and to adopt teaching methods that may prepare students for the challenges of undergraduate study.

Another major aspect of these vertical linkages is in the provision of flexible entry requirements; in particular, in granting credit for learning obtained elsewhere. In Australia, for instance, universities have generally been reluctant until fairly recently to offer 'credit' or advanced standing for students entering their programs with vocational

qualifications, and have been even more cautious about recognising uncredentialled prior learning for those who are presently designated as 'non-traditional.' In the past couple of years, however, many institutions have negotiated articulation agreements with other educational providers, whereby students are able to enter courses at an advanced level on the basis of studies completed elsewhere. They have also established criteria for the Recognition of Prior Learning (RPL) or Recognition of Current Competence (RCC). Clearly this has challenged academics to be very explicit about the learning outcomes to be expected from their courses, and it has likewise required institutions to establish systems for evaluating and verifying applicants' claims for academic credit toward their studies.

Sideways linkages

In terms of lifelong learning, it has become increasingly apparent that individual universities do not have, if they ever did, a monopoly on providing valuable learning opportunities. For a start, with the rapid explosion in knowledge and the high cost of teaching and research infrastructure, it is becoming increasingly common for institutions to allow, or even to encourage, learners to gain some of their skills and knowledge through studies elsewhere. There are instances where degree programs are taught jointly by several institutions, with quite fluid cross-crediting arrangements and, in Europe and elsewhere, through programs such as ERASMUS and UNIMAP, it is now increasingly common for students to undertake at least some of their programs not only in other institutions, but in other countries.

Related to this, in light of the increasing connections between universities and their communities (including employers and the professions), many universities have established quite close working relationships with industries, professions, and governments; tailoring their programs for particular cohorts of students, sometimes teaching in specific training centres at those workplaces, and at times even jointly teaching with staff from partner institutions or organisations. In the United States, Europe, Japan, and to a lesser extent in Australasia, higher education is sharing responsibility for education with others, with consequent financial and educational advantages to both parties.

Even when programs have not been tailored to the needs of particular groups of learners, it is now quite common for students to obtain at least some of their learning through workplace-based assignments. These vary in length and complexity from field trips and visits, through 'sandwich

programs' where work and study are intertwined, to cooperative education and internships where a significant proportion of the accredited learning occurs in the workplace, often under the supervision of part-time 'supervisors' and adjunct faculty. All of this necessarily involves much greater flexibility, and relinquishing some control over the content of the curriculum. However, at the same time, it allows learners to gain academic credit for work experience, and also models the type of learning that many of them may be required to undertake after graduation.

The rapid uptake of the Internet, both within universities and in the community at large, has opened up other possibilities in terms of lifelong learning. On one hand, learners can access information, and even participate in communities of practice, whilst simultaneously engaging in conventional teaching and learning activities. Clearly, this brings to their study issues of currency, relevance, and complexity that might, in the past, have been reserved until after graduation. On the other hand, the Internet has rapidly opened up the opportunity for people who are actively engaged in practice to enrol in formal courses of study and access university-based resources in real-time, virtually without regard to geography. This is a huge topic, which deserves a paper to itself, but in terms of lifelong learning, it begins to approximate the ideal of a learning society, partly because it is so pervasive and seamless, and partly because it may involve other parts of the community (such as local television and radio stations, telecommunications carriers, community libraries, and telecottages (Crellin, 1994) or Community Learning Utilities) in providing support for learners who choose to learn on their own.

In discussing these various options, the question of costs cannot be overlooked. While some of these initiatives actually shift the burden of costs from the student to their employers, for instance, others involve the students in additional costs (such as the purchase of a computer, modem, or fax). There is an issue of equity here, which must not be overlooked; in their enthusiasm to become flexible and responsive to the needs of some learners or stakeholders, universities must guard against the possibility of unwittingly disadvantaging or disenfranchising others.

Forward linkages

The third dimension of the universities in the context of lifelong learning is the provision which they make to maintain contact with their graduates, and indeed with other members of the community. At one level, this relates to the ease of access to postgraduate education. In days gone by,

postgraduate education was a rarefied field, usually linked with pursuit of an academic or research career, and most people considered themselves well qualified if they possessed simply an undergraduate degree. In recent years, however, the changing nature of the marketplace has meant that many people require at least some postgraduate studies if they are to be competitive in gaining or retaining a job. Even where this is not a requirement, the rapid advances in many fields necessitate continuing professional education, some of which may be met through the provision of short-cycle graduate programs which meet very specific needs. Clearly, this has meant that entry requirements and study patterns have become much less rigid and, indeed, modularised and flexible learning packages are increasingly common in place of extended, research-based postgraduate studies.

However, not everyone wants to undertake further formal study towards an award, and universities are also committed to providing continuing professional education, often in competition with other agencies such as the professional associations, employer groups, evening colleges, and industry-based 'for-profit' providers. For universities to be relevant to the lifelong learning needs of their graduates, they need also to be responsive to what the educational market is asking for, and to be more aggressive and responsive in terms of modes of delivery, costing and marketing.

Universities have also had a traditional role in extending learning opportunities to the public at large, often through exhibitions and public lectures, short non-vocational courses, and providing access to their libraries and other facilities for public use. Many universities have regrettably had to limit their activities in these domains to the provision of user-pays continuing education, which effectively precludes all but those in the wealthier professions from participating. This trend has been accelerated in those instances where continuing education has been disbanded as a central function of the University, and instead been dispersed to the faculties and departments, where specialist expertise is often missing and efforts become more fragmented and piecemeal. In these cost-conscious times, some of these initiatives have been, or threaten to be, curtailed and it is important that the time-honoured community outreach function is not entirely overwhelmed by principles of cost-recovery and profit-making.

Summary

For a variety of reasons – some ideological and some practical – institutions of higher education have found themselves caught up in moves to promote access to opportunities for lifelong

learning. While they have continuing responsibility both as social commentators and critics to warn against the possibilities of educational totalitarianism, and as major repositories of cultural and technical expertise, they also have a responsibility to participate fully and actively in moves toward the learning society.

As long ago as 1985, Knapper and Cropley in their groundbreaking work on the relationship between lifelong learning and higher education noted that, "although educational change leading to the promotion of lifelong learning is difficult to implement, it is far from impossible" (p 87). Certainly, if universities are to take their rightful place as part of the total pattern of learning opportunities in our society, it will inevitably entail radically enhanced access to and use of higher education which will potentially have significant flow-on effects to all parts of the culture and life of higher education institutions, including the following:

- admission policies;
- seamless pathways from school and technical education right through to advanced postgraduate study;
- appropriate student support and fee structures that allow for maximum participation;
- greater specificity of learning outcomes, and recognition of learning gained elsewhere;
- portability of credentials and qualifications;
- flexibility in award structures and articulation between different levels of award;
- connections between and among universities and with other educational and training providers in the community;
- opportunity for learners to return to study in line with their evolving personal and professional interests;
- more overt involvement of employers and the professions in determining course content;
- ease of access to libraries, computers, and other learning resources and;
- provision of high quality staff and educational development, as well as learning skill support.

Clearly, a list such as this implies a potential repositioning of the higher education sector, away from a somewhat remote, elitist and inflexible posture, towards one that is responsive, accessible and adaptable to the changing needs of people and

their communities. While this viewpoint is certainly increasingly accepted and acceptable on pragmatic grounds alone, the concept of 'lifelong learning' provides a defensible and robust theoretical underpinning and a reasonably clear-cut rationale for many otherwise disparate initiatives and prescriptions for higher education as we enter the twenty-first century.

CONCLUSION

Although the term 'lifelong learning' may be relatively new in the lexicon of education, and especially higher education, the concept certainly is not. As long ago as 1852, in the inaugural address at Australia's oldest university – the University of Sydney – the Principal and Foundation Professor of Logic and Classics, Rev Dr John Woolley, said this of the fledgling institution:

"Our undergraduates will ... we may reasonably hope, possess a well cultivated and vigorous understanding; they will have formed the habit of thinking at once with modesty and independence; they will not be in danger of mistaking one branch of science for the whole circle of knowledge; nor of unduly exaggerating the importance of the studies which they select as their own. Above all, they will have attained the truest and most useful result of human knowledge, the consciousness and confession of their comparative ignorance" (Woolley, 1862, p 21).

It seems that, for individuals, the acknowledgment of ignorance is actually the beginning of a lifelong journey of continuing learning. For institutions, by focusing on developing lifelong learners in undergraduate programs, by broadening the scope of community outreach, and by forming strategic partnerships, universities are simultaneously reaffirming their historic commitment to providing support for learning in its many forms, contexts, and manifestations throughout life, as well as recognising the imperative to produce employable and vocationally prepared graduates.

NOTE: This paper is based closely on the structure and content of another paper by the same author which has been accepted for publication in the journal *Active Learning in Higher Education*, published by the UK Institute for Learning and Teaching in Higher Education and SAGE Publications, London.

REFERENCES

- Alanen, A. (1982). Lifelong education-permanent education-recurrent education. Adult Education in Finland, 19(2), 3-41.
- Aulich, Sen. T. G. (Chair) (1990). Priorities for Reform in Higher Education. Report of the Senate Standing Committee on Employment, Education and Training. Canberra: Australian Government Publishing Service.
- Ball, C. (1989). Aim Higher. London: Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA).
- Ball, C. (1990). More Means Different: Widening Access to Higher Education. London: Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA).
- Ball, C. (1991). Learning Pays: The Role of Post Compulsory Education and Training. Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA).
- Ball, C. (1992). Profitable Learning: Summary Report, Findings and Action Plan. Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA).
- Bélanger, P. & Gelpi, E. (Eds.). (1995). Lifelong education. International Review of Education, 40(3-5), special issue.
- Butler, A. (1989). Lifelong education revisited: Australia as a learning society. Discussion Paper. Carlton: Commission for the Future.
- Boud, D. (1997). Providing for lifelong learning through work-based study: Challenges for policy and practice. Paper presented at the International Conference on Lifelong Learning, Guildford, Surrey.
- Candy, P. C. & Crebert, R. G. (1991). Lifelong learning: An enduring mandate for higher education. Higher Education Research and Development, 10(1), 3-17.
- Candy, P. C., Crebert, R. G. & O'Leary, J. (1994). Developing lifelong learners through undergraduate education. National Board of Employment, Education and Training Commissioned Report No. 28. Canberra: Australian Government Publishing Service.
- Crellin, I. R. (1994). Telecentres and Telecottages: A new approach to rural community development and technology transfer. Paper presented to the 38th Annual Conference of the Australian Agricultural Economics Society held at Victoria University at Wellington, New Zealand, 7-11 February 1994.
- Cropley, A. J. (1977). Lifelong education: A psychological analysis. Oxford: Pergamon.
- Cropley, A. J. (1979). Lifelong education: Issues and questions. In A. J. Cropley (Ed.), Lifelong education: A stocktaking. Oxford: Pergamon.
- Cropley, A. J. (Ed.) (1980). Towards a system of lifelong education: Some practical considerations. Hamburg: Unesco Institute for Education.
- Cropley, A. J. & Dave, R. H. (1978). Lifelong education and the training of teachers: Developing a curriculum for teacher education on the basis of lifelong education. Oxford: Pergamon.
- Dave, R. H. (1973). Lifelong education and the school curriculum. Unesco Institute for Education Monograph No. 1. Hamburg: Unesco Institute for Education.
- Dave, R. H. (1976). Foundations for lifelong education. Oxford: Pergamon.
- Delors, J. (Chair) (1996). Learning: The Treasure Within. Report of the Unesco Commission on Education for the Twenty-first Century. Paris: Unesco.
- Department of Employment, Education and Training and Organisation for Economic Cooperation and Development (1993). The Transition from Elite to Mass Higher Education: Proceedings of an International Conference. Canberra: Australian Government Publishing Service.
- Department for Education and Employment UK [DfEE] (1998). The Learning Age: A Renaissance for a New Britain. London: DfEE.
- Faure, E. (Chair) (1972). Learning to be: The world of education today and tomorrow. Report of the International Commission on the Development of Education. Paris: Unesco.
- Fryer, R.H. (Clair) (1997). Learning for the 21st Century. First Report of the National Advisory Group for Continuing Education and Lifelong Learning. London: NAGCELL.
- Hernstadt-Schulman, C.H. (1975). Premises and programs of a learning society. Research Report No.8. Washington, D.C.: American Association for Higher Education.
- Higher Education Council, National Board of Employment Education and Training (1992). Higher education: Achieving quality. Canberra: Australian Government Publishing Service.
- Higher Education Council (1993). The enabling characteristics of higher education with respect to lifelong personal and professional learning. Unpublished Project Brief. Canberra: National Board of Employment, Education and Training.
- Higher Education Research and Development Society of Australasia (1992). Challenging Conceptions of Teaching: Some Prompts for Good Practice. Campbelltown, NSW: HERDSA.
- Ingram, J. B. (1979). Curriculum integration and lifelong education: A contribution to the improvement of school curricula. Oxford: Pergamon.

- Kallen, D. (1979). Recurrent education and lifelong learning: Definitions and distinctions. In T. Schuller & J. Megarry (Eds.), Recurrent education and lifelong learning. London: Kogan Page.
- Kangan, M. (Chair) (1974). TAFE in Australia: Needs in Technical and Further Education. Report of the Australian Committee on Technical and Further Education. Canberra: Australian Government Publishing Service.
- Knapper, C. K. & Cropley, A. J. (1995). Lifelong learning and higher education. London: Croom Helm.
- Longworth, N. & Davies, W. K. (1996). Lifelong learning: New vision, new implications, new roles for people, organisations, nations and communities in the 21st century. London: Kogan Page.
- Miller, C. & Parlett, M. (1974). Up to the mark: a Study of the examination game. London: Society for Research into Higher Education.
- National Institute of Educational Research of Japan [NIER] and Unesco Institute for Education [UIE] (1997). Comparative Studies on Lifelong Learning Policies. Tokyo: NIER.
- Organisation for Economic Cooperation and Development (1973). Recurrent education: A strategy for lifelong learning. Paris: Centre for Educational Research and Innovation, OECD.
- Parkyn, G. W. (1973). Towards a conceptual model of lifelong education. Paris: Unesco.
- Riley, R. W. (1993). Changing the culture: A lifetime of learning. Adult learning, 4(6), 19-20.
- Skager, R. W. (1984). Organising schools to encourage self-direction in learning. Oxford: Pergamon.
- Skager, R. W. & Dave, R. H. (1977). Curriculum evaluation for lifelong education. Oxford: Pergamon.
- Tuijnman, A. C. & van der Kamp, M. (Eds.). (1992). Learning across the lifespan: Theories, research, policies. Oxford: Pergamon.
- Weil, S. (1992). Creating capability for change in higher education: The RSA initiative. In R. Barnett (Ed.), Learning to effect. London/Milton Keynes: Society for Research into Higher Education/Open University Press.
- Woolley, J. (1862). Lectures delivered in Australia. Cambridge: Macmillan.
- World Initiative on Lifelong Learning. (1995a). An action agenda for lifelong learning for the 21st century. Part one of the report from the First Global Conference on Lifelong Learning. Brussels: WILL.
- World Initiative on Lifelong Learning. (1995b). CALL for developing human potential. Part two of the report from the First Global Conference on Lifelong Learning. Brussels: WILL.