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 (Heifitz, 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”.

REFERENCES


