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Working 'through' graduate attributes: A bottom-up approach

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Keywords
graduate attributes, teaching strategies, community of practice

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Working 'through' graduate attributes: A bottom-up approach

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***Abstract**: The implementation of graduate attributes is a contentious addition to the agenda of Australian universities as they face issues related to quality assurance and funding. In this case study, we describe a way that we as teachers can work 'through' rather than uncritically with the graduate attributes. We suggest that the graduate attributes potentially allow the university community to focus on the processes of pedagogy. The paper also demonstrates how the graduate attributes can be used to initiate the development of a community of practice through collaboration and sharing of teaching strategies. The project allows a bottom-up approach for interpretation of a top-down policy initiative.*

***Keywords:** Graduate attributes, teaching strategies, community of practice*

Introduction

Universities in the western world have, for more than a decade now, been involved in a "…transformation of public institutions so that they operate according to market logic" (The New London Group, 1995, p. 8). One example of this transformation is the move to ensure that universities can demonstrate that their graduates possess, in addition to key disciplinary knowledge, the kinds of knowledges and dispositions that are valued by potential employers (National Committee of Inquiry into Higher Education, 1997). This move represents a growing convergence of the goals and values of business, government and education. This convergence is not just conceptual, it is also embodied in the Australian context, for example, in the make-up of the members of the Business/Higher Education Round Table (B-HERT). B-HERT is "… a forum where leaders of Australia's business, research, professional and academic communities can address important issues of common interest, to improve the interaction between Australian business and higher education institutions, and to guide the future directions of higher education" (2003, p. 40).

One focus of a number of recent B-HERT publications has been the promotion of the idea that Australian universities need to develop the generic skills of their graduates alongside their

disciplinary knowledge. These generic skills are the skills, values and attitudes which potential employers might find desirable: "The contemporary focus on generic skills is really part of a bigger, as yet unresolved, debate about the purpose of university education and how to develop educated persons who are both employable and capable of contributing to civil society" (2003, p. 6).

These generic skills, as B-HERT has named them, have also attracted other names over the last decade including 'graduate attributes', 'transferable skills', 'core skills' and 'key skills', depending on the national and educational context within which they are being developed (Bolton and Hyland, 2003; Chanock, 2003; Hager, Holland and Beckett, 2002; Jones, 2002;).

In the context of many western universities and the Australian context in particular, the emphasis placed on generic skills is indicative of a larger debate. This debate is about the purpose of university education (see for example, Barnett, 1998) and the type of knowledge or knowledges that are seen as valuable in this era of the 'entrepreneurial university' (Gallagher, 2000; Gibbons, 2000). In Australia, the emphasis on generic skills is also linked with quality assurance and funding. The connection between graduate attributes and quality assurance measures is obvious, for example, in the following excerpt from the University of Wollongong's Strategic Plan (1997-2005): "The attributes of a Wollongong graduate are the touchstone against which the university's academic programs are compared and against which, ultimately, the university's effectiveness can be measured" (p. 5).

In this paper, we focus on our role as teachers in a regional Australian university within the context of this larger debate about purpose and knowledge. The specific context of our paper is one particular approach to the implementation of generic skills, which we refer to as graduate attributes at the University of Wollongong.

Knowledge, purpose and graduate attributes

In the Australian university context, descriptions of graduate attributes are detailed in individual university policy documents. By way of further clarity, we refer readers to the list of nine graduate attributes and their related tertiary literacies currently recognised by the University of Wollongong (2001). And, while each university's specific attributes are meant to distinguish graduates of a particular university or a particular course from graduates from other universities and/ or courses (Nunan, 1999), generally, they encompass such things as:

> (1) the acquisition of a body of disciplinary knowledge, (2) the critical understanding which comes from the communication, application and evaluation of a body of knowledge, (3) the commitment to ethical action and social responsibility, and (4) a capacity for employment and lifelong learning (Jones, 2002, p. 3).

'Knowledge', within the context of graduate attributes, has been broadened to include not only the cognitive understandings traditionally produced by universities- i.e. disciplinary knowledge but also what might be termed 'affective' knowledge, that is the values and attitudes expressed in terms like 'commitment to…' and 'capacity for…' found in many of the documents related to graduate attributes.

In the introduction to our paper, we foregrounded the idea that the graduate attributes provide a point of intersection among particular shaping forces: social, economic and political and consequently, pose a challenge to the purpose of the university, its role in knowledge production and our role as teachers. Underpinning our paper are two key assumptions. These are interrelated and reflect two themes of this conference: holistic approaches to teaching and learning and the broadening out of what counts as knowledge in higher education.

The first assumption is that all educational policies and practices need to be viewed 'discursively', to use Fairclough's terminology (1995). So, we see graduate attributes policies as being contextualised within particular social, political and economic views of the world or 'discourses', rather than as 'neutral' or 'natural developments' from earlier policies. This discursive view has implications for *how* we as teachers might work *through,* rather than uncritically *with,* graduate attributes. By this we mean that graduate attributes policy can be coopted by the university community to explicate the tacit knowledge of teachers.

In relation to one of the themes of this conference, this procedural focus on *how* represents our interest in developing more *holistic* teaching practices rather than ones which focus on outcomes alone. And, this is perhaps the irony of concepts such as the graduate attributes which, as the name implies, focus so much on outcomes–i.e. the attributes of graduates that the university produces. We suggest that the graduate attributes open up a particularly interesting pedagogical space despite the notion of graduate attributes being firmly rooted in the idea that the contemporary western secular university is an entrepreneurial university. This is a teaching space which encourages, even demands, that our teaching practice be more than content transmission.

Our second assumption is that a focus on graduate attributes does not necessarily represent the displacement of one approach to knowledge production by another, but rather a change in priority for the types of knowledge sought (Etzkowitz and Leyersdorff, 2000, cited in McWilliam, Taylor, Thomson et al., 2002). Graduate attributes, perhaps ironically given their entrepreneurial origins, bring onto the mainstream university teaching and learning agenda an area of learning or knowledge that once might have been classed as *affective* as opposed to purely *cognitive*. Affective learning, at best, has largely sat on the periphery of the 'real' work of universities and university teaching staff. Affective learning might have been left to input by the 'service' sector of the university: counselling, vocational and learning development staff, or, seen as a by product of university education, influenced more by contact with peers than by faculty staff (Boylan, 2002).

If the agenda of universities has now shifted to producing students who not only can demonstrate disciplinary knowledge but also an understanding or valuing or commitment to ethical action and social responsibility amongst other things (another type of knowledge, it could be argued) what does this mean for our role as teachers? And, how might we as teachers attend to such an agenda?

*Illuminating graduate attributes,*a project from the University of Wollongong, provides a case study to examine these questions. We put forward this case study because we suggest that the design and approach used by the project team does a number of things in relation to the discussion we have developed in this paper so far. We suggest that the project design allows for a sharing of teaching strategies that focus on the holistic–the affective areas of learning as well as

the cognitive areas. And, we suggest that the design of the project encourages a refocus on the processes of pedagogy. Rather than uncritically complying with the concept of graduate attributes, we argue that we can use the concept as an institutionally sanctioned promotion of good teaching practice and the development of 'a community of practice' (Wenger, 1998).

Adopting graduate attributes - some responses

The implementation of the notion of graduate attributes, tied as it has become to quality assurance, and with implications for both pedagogy and institutional funding, has not been uncontested (Jones, 2000; Clanchy and Ballard, 1995). Responses within and among universities have varied (Barrie, 2003; Chanock, 2003). For some, the concept of graduate attributes has been taken on reluctantly and suspiciously as the unwanted child of a union among business, government, and education sectors. Others, as a number of entries in the B-HERT news (2003) seem to indicate, appear to have embraced the implementation of graduate attributes more enthusiastically or, at least, pragmatically. Generally, implementation responses have fallen into the following areas or combination of areas (Chanock, 2003):

- Mapping and developing where the graduate attributes occur in the curriculum, identifying gaps and developing curricula to fill these gaps
- Testing students' entry and exit score on psychometric tests
- Developing special subjects to teach graduate attributes
- Integrating the fostering of the attributes within existing curricula.

The University of Wollongong has established a number of structures to support the acquisition of graduate attributes through curriculum integration (see for example: Curtis, Lefoe, Merten, Milne, & Albury, 1999; Skillen, Trivett, Merten, & Percy, 1999) and generic graduate attribute programs, such as a compulsory zero-credit point subject for all first year students (Collins & Hill, 2003). While some generic programs do exist, the development of graduate attributes, takes place largely within the disciplines of study at the University of Wollongong. Such a response demonstrates according to Barrie (2003) a particular definition of graduate attributes as being either:

- *Translating attributes* "…which interact with, and shape, discipline knowledge (for instance through the application of abstract or context specific discipline knowledge to the world of work and society) and which are in turn shaped by this disciplinary knowledge" (p. 4); or
- *Enabling attributes* which sit "not as parallel learning outcomes to disciplinary knowledge but as abilities that sit at the very heart of discipline knowledge and learning" (p. 4)

The teaching of these types of knowledges then cannot be left at the periphery of the university or as a happenstance product of simply being a student. Such an argument gains further weight when we look at the University of Wollongong policy statements about graduate attributes. Here the attributes are further underpinned by tertiary literacies. The relationship between tertiary literacies and graduate attributes is described as follows: "Tertiary Literacies are the skills or capabilities that are essential for students to demonstrate the attributes of a graduate of the University of Wollongong" (University of Wollongong, 1999). This articulation between tertiary literacies and graduate attributes suggests that if the tertiary literacies are demonstrable, then

many are assessable. The guidelines for writing subject proposal*s*, part of theCourse and Subject Approval Kit provided by the University of Wollongong (2002a) for staff developing subject or course proposals also suggest this:

> **Tertiary Literacies**
> …Underneath each attribute are a number of indicators [tertiary literacies] that suggest a student is developing skills that contribute to that attribute. For example, by setting assessment tasks that require students to critically evaluate information sources students are given the opportunity to develop the attribute *A desire to continually seek improved solutions and to initiate, and participate in, organisation and social change*…
>
> **Assessment**
> …Achievement of some of the tertiary literacies can also be assessed in the course of assessing subject specific outcomes. Other tertiary literacy skills such as *demonstrates a social responsibility and concern* may not easily be assessed.

What is clear from these documents is that some Tertiary Literacies are assessable and therefore need to be explicitly taught or at least encouraged. But whilst it is clear *what* is required, *how* to achieve it has been unclear to many.

Illuminating graduate attributes project

There was a concern that implementation strategies for staff to make the graduate attributes and the related tertiary literacies explicit through their teaching were limited. As a result, a project team, funded by an internal grant, initiated a project to identify and share teaching strategies currently in use by individuals across the faculties. The team included faculty based academics as well as support staff from learning development, academic development, the library, and the tertiary literacies officer. A website was identified as a useful structure to share information since it could be updated regularly as new strategies were identified. The group was supported by a project manager to develop the collaborative process required to design a website to assist academics at the University of Wollongong to understand and implement effective teaching and learning strategies to help their students achieve the attributes of a Wollongong graduate.

In order to distinguish the strategies currently used, the project team identified effective teachers across the university and interviewed them about strategies they used in their teaching to develop specific graduate attributes. The strategies were developed into a standard format that focussed on the actions required of the teacher to implement the strategy. The interviewees reviewed the final strategy to ensure validity. This resulted in a collection of about thirty strategies for teaching aspects of the nine graduate attributes drawn from across all faculties within the university.

The website (http://www.uow.edu.au/about/teaching/attributes) links the current list of graduate attributes to the teaching strategies as identified in Figure 1.

Figure 1. Homepage of the Graduate Attributes site

Each attribute is hyperlinked to sample strategies. When one of the attributes is clicked, it opens a page that shows a teaching strategy from one of the nine faculties in the university. The website has been designed to share strategies across and within faculties through a navigation structure that allows the user to either view examples for a particular attribute or for a particular faculty by selecting navigation across the attributes or through the faculty contexts, as demonstrated in Figure 2.

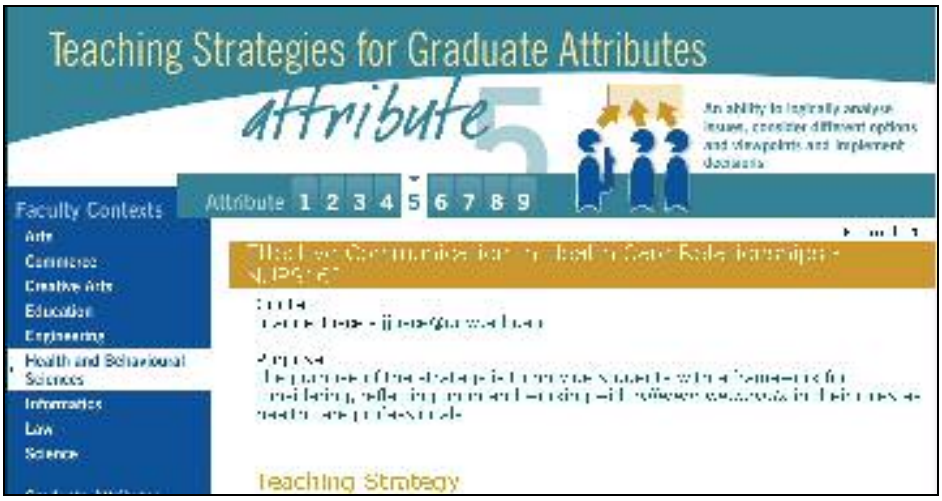

Figure 2. Navigation of site

The purpose of each strategy and its relationship to the graduate attributes are identified before the strategy is explained. The example then focuses on the role of the teacher, identifying the steps the teacher takes to implement the strategy as demonstrated in Figure 3.

Teaching Strategy

1. The lecturer uses a strategy which is an experientially focused exploration of working with different viewpoints and is a conscious attempt to encourage students in a supportive way to reflect on their own values which affect the way they view a problem or issue. These views may be open to change over the duration of the subject and after exposure to different ways of viewing a situation.

    - The lecturer draws explicitly on the attributes and relates these to the health care profession: ie being able to consider and work with a diversity of individuals and viewpoints is valued as a professional attribute. So the "why are we doing this"? is addressed throughout the subject in terms of developing professional skills.

    - Cultural viewpoints in the broad sense of the word 'culture' (ie. popular culture, stereotypes, students' perceptions of their 'own' and 'other' cultural values and viewpoints) are explored through stimulus videos (eg *Stranger in Town*.)

    - Students also interview a peer about the ways in which 'culture' (in its broad sense) has impacted on their experiences of the health care system.

Figure 3. Sample teaching strategy excerpt

The website is linked to the Teaching and Learning Strategic Plan (University of Wollongong, 2002b) to highlight its importance to the university but relies on the bottom up strategy of identifying and sharing current teaching practice. Whilst the website focuses on the sharing of information, the contributors are identified with contact information to encourage collaboration between staff about the strategies. By encouraging such contact, as well as 'corridor conversations' within and across faculties about graduate attributes, the project supports the development of a community of people within the university who collaborate on teaching strategies for graduate attributes and share their knowledge. This we suggest is the beginning of a "best-practice community", whereby the members provide validation though their adaptation and use of the strategies (Wenger, McDermott & Snyder, 2002, p. 76). In order to expand the community, staff members are invited to submit additional strategies through a contribution page where strategies for specific faculties or attributes have not been identified. Templates are provided for each attribute with a sample to be adapted by the contributor.

One of the most interesting aspects of the site is the way in which it focuses on sharing teaching strategies for translating and enabling attributes (Barrie, 2003) - the ones which shape and are shaped by disciplinary knowledge, and, the attributes which are at the heart of disciplinary knowledge. These attributes are housed most obviously in the 'professional' degree programs and so are not new to curricula and subject design and development (Hoddinot & Young, 2001). For example, the Engineering degree is carefully monitored and accredited by a professional body, Engineers Australia. The main objective of the professional body is to accept among its membership university graduates who are capable of confidently working in their profession. This may be in design, construction, or any other engineering specific field. The second requirement of the professional body is communication and management skills, which are proving increasingly important. The third and most important requirement is ethics, where

engineers have to have the highest ethical standards. The engineering courses at The University of Wollongong, which lead to a Bachelor of Engineering degree, satisfy all the requirements of the professional body, Engineers Australia. This is done through designing subjects to equip students with analytic skills, teamwork skills, communication and management skills and knowledge, and an understanding and application of ethical standards in experimental and project work.

The Health and Behavioural Science degree is another area in which translating and enabling attributes are core. The examples highlighted in Figures 2 and 3 demonstrate actual teaching strategies which can be used to encourage Attribute 5. These strategies add a richness and depth created by practical experiences and reflection to a subject content which may already deal theoretically with the need for healthcare professionals to accommodate different viewpoints. Because Figures 2 and 3 highlight a strategy rather than content, that is the *how* rather than the *what,* there is the potential for other disciplinary areas and subjects which might not so easily articulate with these types of attributes to adapt the strategy to their own context and content.

Dissemination of the website

The use of this website for academics depends on how well academics, understand, value and contribute to the site. In order to engage academics to use the site a number of initiatives have been identified:

- The names and contact details are provided to encourage discussion with those who have proposed the strategies.
- A university launch occurred in February 2004 by academic leaders in the university to give the site status.
- The site was demonstrated at faculty meetings to promote its use.
- Cross-faculty workshops were implemented to encourage exploration of the site and discussion of adapting the strategies to meet the needs of different disciplines. The face-to-face workshops were also used to encourage staff to contribute their own ideas to the site, both during the workshops and afterwards.

Through the demonstration of teaching strategies, opportunity to discuss the implementation of strategies during the workshop program and the encouragement for staff to contribute to the site, the project team anticipates the site will grow to include a much wider range of strategies beyond the thirty already contributed. More importantly, through developing a collaborative climate of sharing teaching strategies the team are modelling a practice where staff are willing to share ideas and learn from others. Our own processes parallel what we want our students to achieve.

Future Directions

The challenge for any innovation is the effectiveness of the implementation. In this case the challenge is to both encourage academics to make use of the site and to contribute new strategies so the site evolves. Evaluation of the innovation will occur at the end of the first

year of use and will include a review of website usage statistics, a survey of all academic staff and focus groups with self-nominated staff. It will focus on the following questions:

- How frequently has the site been accessed since the launch?
- How is the site being used by academics?
- What changes have been made to the curriculum as a result of the innovation?
- How has it assisted academics to introduce new strategies for the development of graduate attributes?

Following the evaluation of the use of the site in 2004, the University anticipates developing a further site to support the development of postgraduate research attributes.

Conclusion

The project we have described takes advantage of the potentially interesting pedagogical space opened up by the graduate attributes in that the attributes are used as a conduit for a holistic approach to teaching and learning. This space recognises affective areas of learning as well as the cognitive. More than this, the project provides an avenue for linking academics through the sharing of teaching strategies and the discussions which occur as the result of this sharing.

The university teaching community, through this project, have begun to address its responsibility to develop teaching and learning environments for encouraging the students to develop the attributes rather than leaving this as the sole responsibility of the students. Rather than uncritically complying with the concept of graduate attributes, we have used the concept as an institutionally sanctioned promotion of good teaching practice and the development of a community of practice.

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