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Assessment of Student Learning: promoting a scholarly approach

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Introduction

Assessment of student learning matters more than ever in the changing world of higher education and with changing expectations society has of its university graduates. For this reason, it is imperative that all staff involved in supporting student learning (particularly new academic staff starting their lecturing careers) are enabled to understand the fundamental principles of assessment of student learning, so that they in turn can endeavour to enhance student learning through effective assessment (Stefani, 1998). The aim of this paper is to present a model for promoting the scholarship of assessment which highlights that assessment is an integral aspect of student learning.

Over the past decade or so, there has been considerably more focus on the nature and quality of university teaching. While it has always been the case that teaching in higher education matters greatly, there has been a tendency for the research element of an academic’s career to take precedence over their teaching responsibilities. However, there are increasing pressures on academic staff to provide an effective teaching and learning environment for all students. The advent of new technologies, for example, has resulted in ‘the knowledge explosion’, with the consequence that information is much more transient than was previously considered to be the case. While historically universities were primarily concerned with the ‘transmission’ of knowledge, culture and values through teaching (Hattie & Marsh, 2000), it is now the case, in a knowledge rich society, that a very different approach to teaching must be taken, to enable learners to develop a different skill set and be able to seek out, analyse and evaluate information (Breivik, 1998), rather than to simply accumulate knowledge.

There have been government demands for higher education to promote the concept of lifelong learning (Longworth, 1999), highlighting the need for a continuous ability to update one’s
knowledge, skills and understanding in any career pathway. There have also been global shifts towards mass higher education and widening participation, putting pressure on universities to develop a greater understanding of what it means to facilitate the learning of a more diverse student population. This in turn has put pressure on academic staff to develop an understanding of what it means to design, develop and deliver an accessible curriculum which acknowledges student diversity (Stefani & Matthew, 2002).

While these changes have been dramatic, there have been other developments relating to higher education, which have focused on the promotion of teaching in higher education and are redressing the balance between the privileged status of disciplinary-based research and the facilitation of student learning (Stefani, 2004).

For example, in the UK, the report of the National Committee of Inquiry into Higher Education (1997), otherwise known as the Dearing Report, highlighted the growing need to explicitly reward excellence in teaching and proposed that greater attention be paid to the skills development of academic staff involved in teaching students. The Dearing Report also proposed the initiation of the Institute for Learning and Teaching in Higher Education (ILTHE), to provide a professional body specifically relating to higher education teaching.

To become a member of the ILTHE (which has now been incorporated into the UK Higher Education Academy) requires experienced staff to submit a reflective portfolio of their current teaching practice, covering a range of activities associated with the facilitation of student learning (ILTHE, 2004). For academic staff new to higher education teaching, it has become commonplace for universities to provide a major professional development opportunity in the form of postgraduate level programmes through an Educational Development Unit (see Gosling, 2001). Many of these programmes are accredited by the ILTHE and relate to academic practice in general, or to the facilitation of student learning in particular, and all that this encompasses. Many universities within the UK have made the completion of such accredited programmes a compulsory component of the probationary period for new academic staff and completion of such a course allows for automatic membership of ILTHE.

One of the very positive benefits of the rapid and significant changes in the nature of higher education has been the ‘rediscovery’ of the concept of the scholarship of teaching. While eminent academics such as Elton (1986; 1992; 2003) and Boyer (1987; 1990) have long argued that scholarship is at the heart of what the profession of higher education is all about, a criticism which can be justly directed
towards academic staff is that they too rarely apply the same kind of thought processes to their teaching as they apply to their disciplinary-based research.

However, the scholarship of teaching has now achieved a greater level of importance and it has become almost fashionable to quote in all papers and publications relating to academic practice or educational development Ernest Boyer’s four categories of ‘scholarship’, namely the scholarship of discovery, integration, application and teaching (Boyer, 1990).

There is a danger though, that merely quoting the most popular definitions of scholarship passes for a deep understanding of the terms of reference and indeed signifies that a scholarly approach is now taken at all levels in the teaching and assessment of student learning. To avoid this potential pitfall, it is incumbent upon educational developers in particular to enable all staff engaged in supporting student learning to interrogate the terms of reference of the ‘scholarship of teaching’ and to apply the principles to their disciplinary-based classroom practice.

It is clearly a positive step when academic staff discuss the scholarship of teaching, particularly in light of the contradictory moves to continue to polarize teaching and research through the imposition of a much greater level of performance-based funding for research activities in universities, thus putting pressure on young or new academic staff to focus on research rather than teaching. However, a second potential pitfall in the current emphasis on the ‘scholarship of teaching’, particularly if the term is not ‘unpackaged’ and understandings of what it means in different disciplinary contexts are not developed, is that teaching becomes (or perhaps remains) uncoupled from student learning and from the assessment of student learning (Stefani, 1998).

In essence, it would be a greater step forward to hear academics discussing the ‘scholarship of teaching, learning and assessment’, as this would give greater recognition to the fact that teaching and learning are complementary activities and that assessment is an integral component of teaching and of learning. It is known from research into student learning that assessment essentially drives the curriculum (Ramsden, 1992; 2003; Biggs, 1999) and furthermore that assessment in itself should constitute an episode of learning (Stefani, 1998). Therefore it is fundamental to effective teaching that assessment is seen as an integral part of the teaching and learning contract, and thus crucial that a scholarly approach is applied equally to the facilitation of student learning and to the assessment of student learning.
In the remainder of this paper I will attempt to present a potential model for promoting among academic staff the underlying principles of a ‘scholarly approach to assessment’, while at the same time showing the linkage between teaching, learning and assessment.

**The learning forum**

As mentioned above, in UK universities, and indeed many universities in Australasia, it is commonplace for new staff to be encouraged to pursue a professional development programme relating to teaching and learning in higher education. Having gained knowledge of many of the UK programmes through my role as an accreditor for the ILTHE and through being invited on to Quality Assurance Committees in many higher education institutions, I have noticed that assessment is often treated as a separate entity from teaching and learning. This can, in my opinion, reinforce a notion that assessment is something which is bolted on after course content has been decided upon. This may be because the vast body of research literature now available on teaching, learning and assessment cannot reasonably be packed into a few workshop sessions or even within longer modules of postgraduate professional development programmes. Frequently there is also a tension between supporting new staff in the ‘how to’ of teaching in higher education (given the difficult circumstances they face) and potentially imposing a body of research and literature which many staff may consider to be somewhat divorced from their own subject area.

However, I believe that if we are to succeed in the quest to encourage, support and enable staff to take a scholarly approach to teaching, learning and assessment, even in the difficult circumstances which we currently face, then educational developers must themselves take a scholarly approach in this enabling task. This idea is affirmed by researchers such as Lueddeke (1997) and Middleton (1998). Much of the work I describe here stems from my experience of co-facilitating a module within the University of Strathclyde postgraduate accredited programme entitled Advanced Academic Studies; this module, ‘Learning, Teaching and Assessment in Higher Education’, accounted for 50% of the overall programme. The intention of the module was to encourage participants to compare their own ideas about their day-to-day practice with those in theoretically informed literature on learning, teaching and assessment in higher education (Soden & Stefani 2001). Participants were expected to attend four full day workshops over a period of twelve weeks and, to gain credit for the module, had to present an assignment of 4,000-5,000 words, reflecting on their learning and showing ways in which they had applied that learning to
their disciplinary-based practice. Between workshops, participants engaged in peer critique of each other’s practice, which could include both their teaching and assessment strategies.

A logical model of curriculum development

To initially engage module participants in a discussion on curriculum design, development and delivery, I have found that engaging them in an interrogation of Cowan & Harding’s ‘Logical Model of Curriculum Development’ (1986) is helpful. This shows staff that assessment is an integral part of course design, not something which is ‘bolted on’ at some convenient chronological moment — convenient that is, only to the staff member doing the bolting (see Figure 1).

In the original model of curriculum development presented by Cowan & Harding (1986), the educational terminology in vogue was that a course had aims and objectives. In compliance with current trends, it is now more common to talk about learning outcomes, so in the modification of the original model which I use, I have changed aims for learning outcomes. Using the model therefore also allows for dialogue on the setting of learning outcomes for any course or programme.

A further modification which has been made to the original model is to ask not only about the ‘How’ and the ‘What’ of the assessment strategy and the teaching and learning strategies, but also to ask the question ‘Why?’ I use this with participants in workshop settings to emphasize the need to interrogate our classroom practice and to reflect on our actions (see Figure 2).

This model allows for an interrogation of ‘how’ to assess and ‘what’ to assess. I have always interpreted ‘how to assess’ to mean ‘how can we assess for the stated learning outcomes?’ Asking this question allows an opportunity to encourage module participants to pause and reflect on the learning outcomes for any course in which they have a teaching role, and to think through the assessment devices they use. Interactive discussion will invariably result in a list which includes essays, reports, case studies, laboratory-based practical or creative work, individual and group projects, written tests and examinations, etc. This list is not exhaustive, but drawing it out does allow for some discussion on the appropriateness of assessment strategies and the contexts in which different assessment methods might be used, and for references to be made to case study material and other resources which might be useful.
The more interesting question which the model encourages is ‘what am I assessing?’ or ‘what knowledge, skills, understanding, creativity, attitude and aptitudes, etc., will we assess?’

To open up assessment in this way allows for deeper level dialogue with staff relating to the goals of higher education. How can we assess student learning fairly, objectively and rationally without developing our own conceptions of the learning outcomes or the overarching goals of higher education? While to enter into a dialogue on the goals of higher education may appear to detract from discussion on teaching, learning and assessment, it is important on the one hand to recognize that the key domain of academic staff is within their disciplinary base.
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Figure 2: A simplified version of Cowan & Harding’s Logical Model of Curriculum Development (1986). The model places learning outcomes at the centre and includes ‘why’ in addition to ‘what’ and ‘how’, relating to assessment, learning and teaching.

(Becher, 1989; Becher & Trowler, 2001), but on the other hand, that the changing needs of the graduate employment market (Harvey et al., 1997; Stefani, 2004) require university staff to take a broader view of the goals of higher education. We must recognize that in an era of mass higher education, pursuing a university degree programme is, for most students, merely a step (albeit a major one) on the pathway of lifelong learning (Longworth, 1999). Thus, while we don’t want to detract from the integrity of the disciplinary domain, we must take into account that we are preparing students for a dynamic employment market which requires graduates to be flexible, adaptable and able to take responsibility for their own learning and development.
What are the goals of a ‘higher’ education?

While the contemporary higher and further education curriculum is a highly contested arena (Soden & Stefani, 2001), there seems to be a general consensus that it should enable students to think for themselves or to become ‘critical thinkers’ (HEQC, 1995; 1996). In working with academic staff new to teaching in higher education, it is fair to say that many of them begin their career with a staff-centred view of the curriculum, considering only the needs within the discipline, which often do not go much beyond course content and ‘traditional’ modes of assessment.

In broad terms, one of the key goals of higher education can be expressed as enabling students to become autonomous, independent learners (Boud, 1995). However, we then have to address the question of what characterizes the autonomous, independent learner? Prior to the recent emphasis on ‘the scholarship of teaching’, there was already a growing focus on the development of the ‘reflective practitioner’ in higher education. This terminology came in to vogue with the publication of Donald Schön’s seminal work entitled ‘The Reflective Practitioner’ (1991) and was a call for ‘education for reflective practice’ which, as Schön argued, is crucial to the professions and to professionalism. The concept of reflection has now become a more fundamental aspect of teaching and learning in higher education and has had an impact on the ‘what’ and the ‘how’ of assessment of student learning.

Promoting the goals of a ‘higher’ education at disciplinary level

Working with academic staff accustomed to thinking in their disciplinary language (Becher, 1989; Becher & Trowler, 2001), ‘reflection’ as a concept must be unpackaged into different terms, terms which may be seen to have meanings compatible with the knowledge understanding, skills and attitudes which are key to different disciplinary domains.

In working with staff through such issues, I have found it to be important to encourage them to take ownership of such concepts as ‘critical reflection’ and ‘critical thinking’ and to support them in translating or transforming these concepts to give them a meaning in disciplinary terms. It is after all a tall order to shift one’s thinking towards teaching and assessing for the development of these higher
order thinking skills, when essentially this is at odds with a ‘traditional’ content-driven curriculum and assessment strategies which are primarily based on knowledge content (Fisher, 2003).

When first exposed to a discussion of the goals of higher education and to the ways assessment strategies can either enable students to develop higher order thinking skills or can in fact impede the development of such skills, many staff members in workshop settings give some indication that they feel uncomfortable with such notions and in fact may want to reject the ideas altogether. In this situation, I work back to first principles and revisit the five different understandings of learning discerned by Säljö’s (1979) interviews with adult learners, which were expressed as follows:

1. Learning as a quantitative increase in knowledge, i.e. acquiring information or knowing a lot
2. Learning as memorization, i.e. storing information that can be reproduced
3. Learning as acquiring facts, skills and methods that can be retained and used as necessary
4. Learning as making sense or abstracting meaning. Learning involves relating parts of the subject matter to each other and to the real world
5. Learning as interpreting and understanding reality in a different way. Learning involves comprehending the world by re-interpretting knowledge, or transforming knowledge.

(reproduced in Ramsden, 1992)

This almost always achieves its intention, allowing a deeper discussion relating to what the module participants hope to achieve through their teaching and it allows us to ask the question ‘do we necessarily facilitate student learning and then assess that learning in a way which recognizes transformation of knowledge?’

**Assessing for the goals of higher education**

While it is easy enough to assert that learning is an active process and that at the level of higher education it should result in a process of transformation of knowledge, there is also ample indication that curriculum design, as it is currently conceived, does not necessarily support the development of critical thinking and reflection. For
example, the work of Stephen Brookfield (1995) suggests that critical reflection requires an environment where the self-worth of the learner is respected, where the curriculum is built around the needs and aspirations of learners and where learners are willing to have their own views challenged and can feel safe to challenge others.

While it may be possible to create this type of environment in small group teaching, we need to question the complexities of achieving this in the context of mass higher education and the concomitant large classes which academic staff must deal with. It is important to work with staff in a manner which recognizes the constraints they work with and to reassure them that achieving and assessing for the higher level goals of higher education is not a simple task, but if they themselves develop a greater understanding of what they are in fact trying to achieve, then the chances of success should be greater.

When I work with staff in participative workshops on assessment strategies, I am constantly moving back and forth between the model of curriculum development previously discussed (to remind staff where ‘assessment’ is positioned in this model) and discussions on research into teaching and learning (to affirm the linkages between these three processes).

Returning to the question of why we are not always assessing for higher order skills, the reviews of research into teaching and learning carried out by Kember (1997) suggest that curriculum design may influence lecturers to focus on subject matter in their teaching rather than on the development of critical thinking. Soden & Stefani (2001) suggest that this is because curriculum content is usually specified far more fully than key skills, attitudes and attributes. It is also the case, of course, that lecturers are offered little help in clarifying what is encompassed in the notion of good ‘thinking’. Thus they are not clear what it is they are supposed to be helping students to develop. It should not be a surprise therefore that the lack of clarity about the nature of thinking leads to the confusion about how good thinking and critical reflection might be assessed.

While weaving in a theoretical backdrop to the scholarship of assessment, when working with staff to encourage them to consider the structure of assignments which they set for the students, I often quote my experience of being invited into a department to discuss with a senior academic ‘the appalling set of essays’ he has just received from a class of postgraduate students. My role as an educational developer involved acting as a consultant for staff to support them in dealing with teaching and learning issues. In response to the question, I suggested that this academic provide
me with the set of essay questions which had been presented to the students and that I organize some workshops with the students to explore the gap between the academic expectations within the course and the student achievement.

In facilitating a series of workshops with the student group, I was much less interested in the actual subject matter and course content than in the students’ conceptions of what was expected of them.

During these workshops, I discovered that the problem lay primarily with the ‘stem’ of the essay questions. While the academic staff involved were indeed trying to promote ‘critical thinking’ by setting assignments in the form of essays which asked students to ‘compare and contrast’, to ‘interpret’, to ‘critically evaluate’, etc., it turned out that the students were very poor at defining these terms. Their tendency was to ‘describe’ or to merely ‘present’ what they considered to be the appropriate content relevant to the topic of the essay. After further discussions with the irate staff member, it turned out that while academic staff wanted to promote critical thinking and to assess for critical thinking and reflection through the device of essays, the methods of teaching or facilitating learning did not in any way promote such critical thinking in the classroom. The teaching methods were primarily transmission-based and content-driven with few opportunities for students to engage in critical inquiry.

This cameo which I share with the module participants is one of many in a similar vein which I have experienced while working as an educational developer. It highlights and affirms that academic staff themselves need to critically analyse the assignments they set for their students and ensure that there is a shared understanding between staff and students of what is expected within the teaching and learning contract (Stefani & Nicol, 1997). In other words, enhancing students’ capacity for critical reflection requires us to offer clear guidance about what is required for critical reflection, give feedback on how reflective capacities can be improved and model critical reflection throughout the courses we offer and present (Brookfield, 1995; Harvey & Knight, 1996).

After sharing such anecdotes, I invite staff within workshop sessions to reflect on ‘critical thinking processes’ relevant to their discipline and how they might build such processes into their courses, model them for students and also assess for them. From the discussions and feedback I receive from staff, the sharing of anecdotes helps them to understand more clearly what I mean by asking them to take ownership of the terminology of ‘reflection’ and ‘critical thinking’ in their own disciplinary-based terms.
Assessing for critical thinking and critical reflection should be important whatever the learning level in any university course, but it must be clear to the students what is expected of them and every effort must be made to ensure that students understand the assessment criteria in the way that staff intended them to be understood (Orsmond et al., 1996; 1997).

There is a natural lead in here to discussions on how academic staff set assessment criteria and whether they consciously, explicitly, link assessment criteria to the intended learning outcomes for the courses being offered. There is research to suggest that lecturers often assess students on easily assessable matters, such as memorization of large bodies of factual material (Boud, 1995). In other words, staff sometimes actually reward a surface approach to learning whereas the focus should be on how students use, interpret or criticize material to do something with it, taking a deep approach to learning (Marton & Säljö, 1976; Ramsden, 1992; Entwistle, 1995).

The language of assessment

Sharing the underlying principles of teaching, learning and assessment within workshop settings takes up a lot of time. It is a facet of the Advanced Academic Studies programme, upon which the work described is based, that it must be interactive and must allow for the sharing of experiences amongst the participants. The intention of this is to model peer learning and to encourage staff to promote peer learning within their own classes.

It is also the case that the programme is based upon the concept of ‘situated learning’, whereby the staff are being presented with new ideas about teaching, learning and assessment which are theoretically underpinned, but they are not being bombarded with ideas on ‘how to teach in your classes’. Rather they are being encouraged to reflect on the class discussions, the recommended readings which are a standard aspect of any accredited programme and their classroom actions, to try to reinterpret their practice in the light of the insights they have gained (Soden & Stefani, 2001).

In addition to promoting a scholarly approach to teaching, learning and assessment through an interrogation of the goals of higher education, it is of course important to ensure that the participants understand the basic language of assessment. Terms such as summative and formative are clearly defined with ample scope for discussion on the importance of formative feedback to affirm student learning. There is always a considerable level of discussion relating to the difference between criterion-referenced assessment and norm-
referred assessment. There has, for example, always been ample anecdotal evidence that academic staff have a ‘sense’ of what they are looking for in student assignments, but do not necessarily fully articulate the criteria. Having this ‘sense’ of what they are looking for in an assignment has led to a preponderance of norm-referenced assessment, comparing one student’s performance with another or, put another way, assignments are put into a rank order (Biggs, 1999). This is an ineffective means of assessing student learning and affirms the notion of ‘the hidden curriculum’ (Miller et al., 1998).

Many subject areas favour the use of essays as a means of assessing student learning. After having the discussion relating to ‘what exactly are we assessing?’ as described above (i.e. are we assessing content knowledge or are we assessing critical thinking?), it is highly productive to ask course participants to reflect on how they assess essays. Do they have clear criteria? Do they share these criteria with their students? Are they sure that their students understand the criteria in the way they meant these criteria to be understood? This exercise is intended to encourage reflection on how assessment is carried out and how fairly staff are treating their students.

The key point to convey is that the assessment of student learning entails making a judgement as to how well a student’s performance matches the intended learning outcomes for a given course. This in turn requires the setting of criteria relating to these learning outcomes. The task for staff is to apply the scholarship of assessment within their own disciplinary contexts, and to work towards assessing for higher order thinking skills.

The examples of discussions, exercises and reflections which I have presented are not exhaustive. Indeed, within the module it is not possible to cover every facet of assessment, but the hope is that participants take more of an interest in the pedagogical underpinnings of their practice and will follow up on the module by engaging in further professional development opportunities available to them. To end the module, I generally present the following simplistic guide to the assessment process. I present it to staff as an aid to their practice which can be used whatever the format of the assessment and whatever the medium being used.

The key processes associated with assessment are:

- setting the criteria for assessing student learning in accordance with the learning outcomes
- ensuring a shared understanding between staff and students of the assessment criteria
• selecting the evidence that would be relevant to judge against these set criteria
• ensuring students understand the nature of evidence to be provided
• making a judgement about the extent to which the assessment criteria have been met
• ensuring transparency of these judgements
• communicating assessment outcomes to students
• providing useful feedback to the students on the assessment outcomes.

Summary

Clearly there is no definitive way to introduce or raise awareness among academic staff to the scholarship of teaching, learning and assessment. The intention of this paper is to give some insights into how staff can be supported in developing an understanding of the relationship between student learning and assessment of student learning. While I choose to use the model of curriculum development presented by Cowan & Harding (1986), others may choose to use the model of alignment of learning, teaching and assessment proposed by Biggs (1999). On the other hand, educational developers working with disciplinary-based staff may choose to use neither of these models, but rather to use a case study approach, for example on facilitating understanding of learning and assessment.

While this paper does not touch upon many other aspects of assessment, the modular structure of the Advanced Academic Studies programme allows for further inputs on assessment in other modules. The course assignments require participants to reflect on their current practice and to engage with other easily accessible literature on teaching, learning and assessment.

There is often insufficient time to go into particular types of assessment in great depth, for example peer- and self-assessment, group work assessment and online assessment. However, these modes of assessment are almost always brought up by participants in the course of discussion and there is always scope to provide extra resources for the participants on request. However, the ethos of the Advanced Academic Studies programme from the outset was to promote scholarship and a scholarly approach to the facilitation
of student learning. If the underlying principles of assessment are better understood, it is hoped that in the long term, academic staff will recognize that assessment is integrally linked to learning and that they will develop the skill of transforming their theoretical understandings into pragmatic classroom action.

References


