eCULTURE

Challenging the Status Quo. What is Driving Change in Assessment in Higher Education?

Patricia A. Williams*

*Edith Cowan University, trish.williams@ecu.edu.au

Challenging the Status Quo. What is Driving Change in Assessment in Higher Education?

Patricia A. Williams

Abstract

Assessment is an integral part of the student learning experience. It can be argued that it has the single greatest impact on student learning. Therefore it is imperative that we understand how assessment in higher education is changing, what drives these changes and how these changes affect individual teaching practice. This paper discusses assessment as a driver for change by examining the stakeholder perspectives and expectations of assessment, and equating these to potential drivers for change in student learning.

ECULTURE

Challenging the Status Quo. What is Driving Change in Assessment in Higher Education?

Patricia A H Williams
School of Computer and Information Science
trish.williams@ecu.edu.au

Abstract: Assessment is an integral part of the student learning experience. It can be argued that it has the single greatest impact on student learning. Therefore it is imperative that we understand how assessment in higher education is changing, what drives these changes and how these changes affect individual teaching practice. This paper discusses assessment as a driver for change by examining the stakeholder perspectives and expectations of assessment, and equating these to potential drivers for change in student learning.

Introduction

Change in teaching practice, more specifically in the lecturing and delivery of materials is usually the first point of transformation in teaching practices for individuals (Williams, 2005). However, it is assessment that potentially has the most significant impact on student learning (Chalmers & Fuller, 1996; Crooks, 1988; Gijbelsa, van de Watering, & Dochy, 2005; Marton & Saljo, 1976). Assessment is not a stand-alone aspect of the student experience; in many cases it is the driver for learning itself (James, 1994) and therefore is an integral part of the learning experience. One of the complexities associated with assessment is that it has multiple coexisting purposes, each valid yet competing. It should not be viewed merely as grading or as a problem identification instrument. Whilst it includes these aspects, it is also allied with achievement and learning, improvement and measuring quality of understanding, and indeed the quality of teaching. Assessment should be part of teaching and student learning, not a summary of it. Since there is agreement that assessment has the single greatest impact on student learning, it is imperative that we understand how assessment in higher education is changing, what drives these changes and how these changes affect individual teaching practice.

The changes in higher education have been caused by new technology and the shifting needs of the stakeholders in education (Ringel, 2000). Assessment practice has become a central topic in tertiary education due to the emphasis on graduating students with generic and 'new' literacy skills, in response to changing methods of communication, globalization and workplace needs (Johnson & Kress, 2003). Information literacy, superior communication ability and teamwork proficiency are but a few of these generic skills. The responsibility for developing these skills in students has been given to tertiary education and "pressures are rising for institutions to provide evidence of their broader usefulness" (Hearn & Holdsworth, 2002). The skills, determined by new technologies and communication mediums, are not necessarily explicitly taught, they form part of every subject and therefore need to be assessed as part of the overall subject evaluation of students.

This paper discusses assessment of skills and knowledge as a driver for change by examining the many stakeholder perspectives and expectations of assessment, and equating these to potential drivers for change in student learning.

ECULTURE

According to Hornby (2003) the purposes of assessment are varied: they are formative in nature to provide guidance for subsequent learning; summative assessing performance; certification rewarding by qualification; and evaluative where the relevant interested parties can assess the success of the education process. The following section presents a discourse on the purpose of assessment from the various stakeholder perspectives.

Stakeholders in Assessment

The demands for changing assessment come from various directions. The drive to integrate knowledge and contextualize it locally and professionally is prevalent. In addition, the pressure to develop generic skills embedded in usual teaching and to evaluate these skills multi-dimensionally is prominent (Center for Support of Teaching and Learning, n.d.). Assessments are often developed by time poor academics that are under pressure to assess authentically and over a wide range of competencies and skills, yet they are faced with large classes to manage and with an audience that will only focus their attention on the outcomes of the assessment rather than the process (Race, 1993).

The stakeholders in education are not only students, teachers, faculty, school and university; they extend to employers, industry and the broader community. The community and industry have similar expectations of the general characteristics of graduates. The tertiary education system i.e. universities, have to cater for these expectations within its pedagogical structure. From a faculty, school and academic viewpoint, discipline related expectations have greater significance than for students who are primarily outcomes motivated. Vreijenstijn (cited in Kekale, 2002) notes, "society demands value for money; students wish that research and education contributes to their individual development and prepares them for a position in society; and employers wish education to provide students with knowledge, skills and attitudes needed at work."

Employers, Industry and the Community

There are increasing expectations of graduates to possess lifelong learning and generic skills. These generic skills are characterized by superior communication and teamwork skills, critical thinking, and abilities associated with lifelong learners, such as independent study skills (CSHE, 2002). Universities translate these expectations into skills known collectively as 'graduate attributes' (ECU, 2002; Murdoch University, 2004; University of Melbourne, 2002; University of Wollongong, 2004). "There is growing interest on some campuses in encouraging scholarship and teaching that is responsive to broader social and economic needs" (Hearn & Holdsworth, 2002). Industry and employers, whilst also requiring discipline specific knowledge, have similar demands.

Universities

The purpose of assessment from a university perspective is two-fold (Chalmers & Fuller, 1996). Firstly, it is to grade students to meet the course requirements, which includes examination and judgment of the students work and learning. This encompasses setting and maintaining standards (CSHE, 2002). Secondly, it is to help students in their learning through consolidation of learning, feedback and advice. These quality outcomes are achieved by

giving the responsibilities of the teacher to provide valid, educative and comprehensive assessments (Teaching and Learning Standards Working Party, 2003).

Faculty and Schools

The purpose of assessment, from the faculty and school (departmental) perspective is to mirror that of the university whilst providing for discipline and industry specific objectives. In reality, the faculty and school perspective aligns and operationalizes the university perspective, and encompasses the requirement for adequate administration and quality of assessment in large classes. "Concerns about program quality, undergraduate teaching effectiveness, and efficiency have led to both internal and external demands for regular reports of accountability and assessment" (FCHS, 2002).

Academics

Ramsden (2003, p.182) suggests that the multiplicity of purposes of assessment means that it is often the weakest part of the teaching process, and thus does not achieve the learning we desire for students. This is mainly due to a lack of knowledge of how to undertake assessment design and implementation professionally. For the academic, assessment needs to align with the demands of the organization, faculty, school, and with personal teaching philosophy. Consolidation of learning, motivation and promoting deeper investigation into course content are desirable objectives from the school and academic viewpoints. Whilst the university is ultimately responsible for the academic standards, in reality it is the academic staff whose "judgment define and protect standards through the ways in which they assess and grade the students they teach" (CSHE, 2002, p.17).

There is a compelling argument that as educators we want our students to make meaning of what is taught for themselves and therefore stimulate deeper thinking and structurally more significant learning in today's workplace environment (Johnson & Kress, 2003). Organization of the students learning, and consolidation of this learning for the student is an important aspect of assessment for the teacher. Strategies associated with these objectives, have been shown to improve understanding and skills, and assist in long term retention of material (Crooks, 1988). From the academic viewpoint assessment is also an opportunity to support and correct student learning.

Students

Chalmers and Fuller (1996, p.41) assert that assessment strategies adopted by students are commonly focused on marks and grading. Therefore, the student view of the purposes of assessment frequently varies from those giving or marking those assessments. Distinguishing levels of achievement can be strong motivator for students. It assists students if the grading "criteria is clear and defensible" (Crooks, 1988). From the student perspective assessments show the strengths and weaknesses of their learning.

In consideration of the multiple purposes of assessment, it is clear that collation and integration of all the stakeholder viewpoints is a complex yet highly important facet of tertiary education. The following section examines how these viewpoints are creating change in assessment.

ECULTURE

What are the Drivers for Change?

Some of the drivers for change come directly from the multiple stakeholder expectations, whilst others are formed from a synthesis of these expectations with pedagogically sound practice. The method to bring together all the perspectives of the various stakeholders and emerge with assessments that fulfill the required criteria is to produce what is termed 'effective assessment'. The principal driver in effective assessment is the direct alignment of teaching practice to meet the broader societal expectations; second is awareness by academia of the needs for the principal driver and improved educational practice; third is as a consequence of the second in moving to a more student-centred environment in tertiary education; and lastly there exists a driver to address the specific issues in creating this environment.

Alignment

Aligning the purpose of assessment, i.e. the stakeholder requirements, with teaching practice can be problematical. However, it is important that this alignment be a strategic goal in individual teaching practice in order to support the outcomes of student learning (Biggs, 1999). Failing to align learning objectives and assessment can sometimes be attributed to institutional policy. The measurement oriented nature of university defined objectives creates this problem, however using a standards model for assessment has the potential to align and better assess student performance following their learning (Biggs, 1998).

From the wider community and employer perspective, alignment with desired generic skills has initiated focus on graduates attributes. Further, the necessary alignment of the graduate attributes with course requirements is occurring at the faculty and school level. The interpretation of graduate attributes and promotion of generic skills with a discipline specific context requires significant work in embedding such skills and assessment of them within a course structure. Whilst it should be undertaken at an overall course level, embedding and assessing the skills remains the responsibility of the individual academic at the subject level.

Academic Reflection: How and Why we Assess

Increased awareness by academic staff of the need to question how and why they assess, often initiated by post-graduate study in education, is a promoter of change in assessment practice. Reflection on the issues and incorporation of fundamental pedagogical practice results in reassessment of individual teaching practices including assessment. Elementary to a review of teaching practice is to refocus on the outcomes for students in tertiary education. Bloom (1956) defined a taxonomy of three general educational objectives:

- cognitive (thinking and knowing),
- psychomotor ('practical' skills), and
- affective (attitudes and values).

Using this taxonomy, cognitive progress by students can be assessed sequentially "by asking them to *recall* or *recognise* information, *comprehend* and *apply* information and principles and, finally, *critically analyse* or *problem solve* in new situations" (James, 1994). Practical skills can be assessed by observation and affective characteristics by student self-reflection.

Further, generic skills such as critical thinking, collecting, analyzing and evaluating information, teamwork, communication skills, and use of technology are now expected of

graduates (Drew, 1996; Klenowski, 1996). These are, by nature, skills that are developed over time and by experience. Therefore, the development and assessment of such skills must be seamlessly integrated with learning and assessment across the course. Interpretation of this must include correlation between activity and outcomes. One of the most important principles in assessment design is that we have an understanding of the difficulties for students to achieve the specified outcomes if we have not carefully correlated the outcomes with the assessment activity itself (Crooks, 1988).

Student-Centred Learning

The constructivist view of learning highlights the distinction between the teacher imparting information and the student engaging with the task to construct their knowledge (Biggs, 1991). Lack of motivation in study and focus on final grades, results in assessment being taken more seriously by students than other parts of the learning experience (Crooks, 1988). Thus, to ensure assessment achieves the outcomes the teacher desires, it must be focused on the student and what affects their learning, otherwise known as student-centred learning. Student-centred learning covers many topics: the fundamental approaches students take to their learning; obtaining and using of feedback, including self-evaluation; engagement; authentic tasks and application to the real-world; motivation; and student input to assessment.

Engagement of student in their discipline specific subject matter is important. Thus engagement may also be promoted by the use of authentic, contextualized assessment. Authenticity to tasks, pertinent to the professional direction of the course, is vital to both motivate learning and expose students to the realities of life outside university. Further, there is a push to make assessment criteria explicit to students and as Crooks (1988) suggests, informing students is a positive action in student assessment. However, whilst it assists students to make criteria explicit and transparent, there is a danger that in doing so may promote surface approaches to learning that are marks driven and concentrate on meeting the specified marking criteria rather than engaging in the learning itself (Norton, 2004). Developing a sense of ownership can be a potent motivator and increase commitment to tasks and to change (Race, 1993).

It is evident that trying to cater for improved student-centred learning and to the multitude of needs of the students themselves can drive change, albeit a complex driver.

Additional Issues

The student population is changing from the once homogenous, full time, young and academically select few, to a larger, more heterogenous group with diverse backgrounds, experience abilities, and expectations (Fraser & Greenhalgh, 2001). Thus large class size is a part of university teaching for reasons of economics and resourcing (Ramsden, 2003, p.147). The issues associated with teaching and assessing in large classes is not inconsequential. It is widely accepted in the literature that small class environments are more likely to promote higher level thinking, motivation and attitudinal change in students (Teaching and Educational Development Institute, 2001a). Hence, if these objectives are to be pursued in the large class environment the reliance on teaching alone will not suffice to produce the desired outcomes. Assessment too must be carefully constructed to help the students achieve higher order thinking and promote deeper learning as well. Excessive marking loads, consistency and quality in marking, valid assessment versus manageability, feedback, monitoring

plagiarism, and the limitations provided by some assessment methods to evaluate higher order thinking skills are some of the issues facing assessment in large classes.

Other problems, and possible solutions, lie is a greater adoption of technology for both learning and assessment. Online assessment is an issue which requires significantly more investigation; however this is outside the scope of this paper. Teachers need support from schools and faculty to make the opportunities to develop effective assessments in a growing context of accountability in the quality of teaching and learning in higher education. Lastly, the issues of size are compounded by a greater diversity of student backgrounds, culturally and intellectually (CSHE, 2002).

Conclusion

It is not in dispute that student learning is driven to a great extent by assessment. Hence, it can be harnessed to guide and promote learning if it is driven by alignment with the needs and expectations of all those involved in tertiary education and consistent pedagogical practice. In addition, correlating all educational stakeholder perspectives with individual teaching practice and creating effective assessment, requires an understanding of the overall purposes of assessment and the instructive structure to which it must become part of. With the increase in demand from the community, employers and industry to graduate students with significant generic skills, the universities must uphold both these requirements and the traditional educational structures upon which learning is built. These, together with the faculty and school provision for discipline specific outcomes, ensure that the academic holds great responsibility in helping students to meet these goals. Affiliated with this are the needs and points of view of the students themselves. The academic is both the facilitator of the learning, and the assessor of it. These two tasks necessitate research and reflection by the academic to meet all the expectations and goals. It is up to them to create effective assessment which includes constructive alignment (Biggs, 1987, 1999, 1991) of learning outcomes with assessment.

Research has shown that assessment is frequently considered outside of the teaching process (Teaching and Educational Development Institute, 2001b), yet from the perspective of the student we know it is a key factor in their learning (Biggs, 1999; Crooks, 1988) and therefore should be an integral part of the teaching process as well as the learning process for the student. At the foundation of addressing assessment is the assumption that students are able to make the best use of the learning opportunities presented to them. This is generally not the case, particularly when the student population is no longer drawn from the elite cohort it is once was (Chalmers & Fuller, 1996, p.3). It is therefore important to consider the learning needs of students to enable them to become the proficient lifelong learners we are expecting through university education. Engagement in their learning, including through assessment, is part of the role of the educator (Ramsden, 2003; Shulman, 2002).

There are many drivers for change in assessment as it is no longer sufficient to 'do what we have always done'. Drivers come from stakeholder expectations, educational alignment of these expectations, awareness and reflection on current educational theory including the focus on generic skills and the push for more student centred learning environments, and specific discipline and school issues such as large class teaching. The change in purpose lies in making assessment student-centred and transforms from a testing of knowledge to a generation and learning of knowledge and skills through doing the assessment. This is both a cultural challenge for academic staff and for the students (Harris & Bell, 1990).

ECULTURE

References

Anonymous. (1999). Deep learning? *British Medical Journal, 319*(7209), 524. Retrieved 2004, Mar 30 from ProQuest database.

Biggs, J. (1987). *Student approaches to learning and studying*. Melbourne: Australian Council for Education Research.

Biggs, J. (1998). *What the student does: teaching for enhanced learning in the 90's.* Paper presented at the HERDSA - Transformation in higher education: conference proceedings'. Auckland, NZ.

Biggs, J. (1999). *Teaching for quality learning at university*. Buckingham, UK: SRHE and Open University Press.

Biggs, J. (Ed.). (1991). *Teaching for learning: the view from cognitive psychology*. Hawthorn, Vic: ACER.

Bloom. (1956). *Major categories in the taxonomy of educational objectives*. Washington University. Retrieved 21 November, 2003, from http://faculty.washington.edu/krumme/guides/bloom.html

Center for Support of Teaching and Learning. (n.d.). *Assessment of student learning*. Syracuse University. Retrieved 10 September, 2004, from http://cstl.syr.edu/cstl/t-l/assess2.htm

Chalmers, D., & Fuller, R. (1996). *Teaching for learning at university*. London: Kogan Page.

Crooks, T. J. (1988). *Assessing student performance* (Vol. 8). NSW, Australia: HERDSA.

CSHE. (2002). *Assessing learning in Australian universities*. Centre for the Study of Higher Education for the Australian Universities Teaching Committee. Retrieved Feb 02, 2004, from www.cshe.unimelb.edu.au/assessinglearning

Drew, S. (1996). *Key skills in higher education: background and rationale* (Vol. SEDA Special No 6). Birmingham: SEDA Publications.

ECU. (2002). *Graduate attributes @ ECU* (Handout). Mount Lawley, WA: Centre for Learning and Development Services, Edith Cowan University.

FCHS. (2002). *Faculty of Computing, Health and Science: Operational plan 2002-2004*. Perth: Edith Cowan University.

Fraser, S. W., & Greenhalgh, T. (2001). Coping with complexity: educating for capability. *British Medical Journal, 323*, 799-803.

Gijbelsa, D., van de Watering, G., & Dochy, F. (2005). Integrating assessment tasks in a problem-based learning environment. *Assessment & Evaluation in Higher Education, 30*(1), 73-86. Retrieved November 12, 2005 from Expanded Academic Index

Harris, D., & Bell, C. (1990). *Evaluating and assessing for learning*. London: Kogan Page.

Hearn, J. C., & Holdsworth, J. M. (2002). The societally responsive university: public ideals, organisational realities, and the possibility of engagement. *Tertiary Education and Management, 8*(2), 127-144. Retrieved September 23, 2004 from ABI/Inform Global database

Hornby, W. (2003). Assessing using grade-related criteria: a single currency for universities? *Assessment & Evaluation in Higher Education, 28*(4), 435-454. Retrieved November 16, 2005 from Expanded Academic Index

James, R. (1994). *Assessment*. Centre for the Study of Higher Education, Melbourne University. Retrieved 10 September, 2004, from http://www.cshe.unimelb.edu.au/downloads/assessment_rev2.pdf

Johnson, D., & Kress, G. (2003). Globalisation, literacy and society: redesigning pedagogy and assessment. *Assessment in Education, 10*(1), 5-14. Retrieved November 16, 2004 from Taylor and Francis database

Kekale, J. (2002). Conceptions of quality in four different disciplines. *Tertiary Education and Management, 8*, 65-80. Retrieved November 12, 2004 from SwetsWise database

Klenowski, V. (1996). *Connecting assessment and learning*. Paper presented at the British Educational Research Association Annual Conference Lancaster University 12-15 September, 1996. Retrieved 10 September, 2004, from http://www.leeds.ac.uk/educol/documents/000000190.htm

Marton, F., & Saljo, R. (1976). On qualitative differences in learning: outcomes and processes. *British Journal of Educational Psychology, 46*, 4-11.

Murdoch University. (2004). *Graduate attributes at Murdoch University*. Retrieved November 10, 2004, from http://www.tlc.murdoch.edu.au/gradatt/

Norton, L. (2004). Using assessment criteria as learning criteria: a case study in psychology. *Assessment & Evaluation in Higher Education, 29*(6), 687-702. Retrieved November 12, 2005 from Expanded Academic Index

Race, P. (1993). *Quality of assessment.* Ch4 from Never Mind the Teaching Feel the Learning. SEDA Paper 80, 1993. Retrieved 10 September, 2004, from http://www.city.londonmet.ac.uk/deliberations/seda-pubs/Race.html

Ramsden, P. (2003). *Learning to teach in higher education* (2nd ed.). London: RoutledgeFalmer.

Ringel, R. L. (2000). Managing change in higher education. *Phoenix Institute: Assessment and Accountability Forum - Innovation and Quality Management in Adult-Centered Higher Education*(Fall 2000). Retrived November 16, 2004 from http://www.intered.com/public/aaf.htm

Shulman, L. S. (2002). Making differences: A table of learning. *Change, 34*(6), 36-44.

Teaching and Educational Development Institute. (2001a). *Teaching large classes: student performance in large classes.* University of Queensland. Retrieved 22 February, 2004, from http://www.tedi.uq.edu.au/largeclasses/pdfs/LitReview_2_StudPref.pdf

Teaching and Educational Development Institute. (2001b). *Teaching large classes: teaching and assessment in large classes.* University of Queensland. Retrieved 22 February, 2004, from http://www.tedi.uq.edu.au/largeclasses/pdfs/LitReview_3_Teach&Assess.pdf

Teaching and Learning Standards Working Party. (2003). *Academic Board: Teaching and learning standards* (Handout): Edith Cowan University.

University of Melbourne. (2002). *Attributes of the Melbourne graduate*. Retrieved November 10, 2004, from http://www.unimelb.edu.au/student/attributes.html

University of Wollongong. (2004). *Attributes of a UOW Graduate*. Retrieved November 10, 2004, from http://www.uow.edu.au/about/teaching/graduate_attributes.html

Williams, P. A. H. (2005). *Awareness invoking positive change: Reflections on lecturing practice in Computer and Information Science.* Paper submitted to the Teaching and Learning Forum: The Reflective Practitioner., Murdoch University, Murdoch, Western Australia.