

## ***Using Assessment to Engage Graphic Design Students in their Learning Experience***

Debra Ehmann

*Swinburne University of Technology, Melbourne, Australia*

This paper focuses upon the somewhat neglected area of design education. It argues that assessment can be used strategically to engage graphic design students in their learning experiences. The argument rests on claims that assessment is a dominant influence on the way in which students learn, as well as the main focus for student time and attention (Brew, 1999; Gibbs, 1999). Traditional concepts of assessment and approaches to teaching on design courses will be discussed to support the claim that they do not focus student time and attention in a way that encourages students to ‘construct meaning through relevant learning activities’ (Biggs, 2003a; 2003b). Design education has relied on the transmission mode of relaying experience, which allows students to remain passive in, as well as take a surface approach to, their learning. Learning activities designed to explicate assessment tasks as well as to promote peer interaction and discourse support a deeper approach to learning. Primary aims have been to use assessment to define ‘what’ is important for students to learn, in this case ‘how’ they work, as well as to create the learning activities that engage students in that learning. This paper draws on an initial case study undertaken in a Higher Education setting in a graphic design education context. The research pointed to problematic aspects with the implementation of assessment intentions. The researcher’s teaching practice has attempted to address some of these problems, and some of these practices are described. The conclusion drawn from the evidence is that assessment-focussed learning activities can have positive implications for the learning experience.

### **Introduction**

Since the 1980s there was a shift in higher education which led to student-centred approaches to learning. This shift has been described as a move “from a concern about teachers’ actions to a concern for what students learned from those actions” (Bloom, 1994 in Heywood, 2000, p. 56). Student-centred courses prioritise the student experience, with an emphasis on process and understanding rather than on what students remember (Gibbs, 1995). Learning for understanding has implications for the way we think about assessment. If assessment drives student learning (as suggested by Boud, 1990) and powerfully influences the way in which students behave as learners (Gibbs, 1995), then students must understand what is to be assessed. Teachers play a central role in creating assessment-focussed learning activities that encourage students to take a deep approach to their learning in which they meaningfully engage in the learning tasks.

Biggs (2003a, 2003b) uses the principle of constructive alignment to point out how assessment can be used to strategically improve the congruency between assessment and learning activity. In a constructively aligned teaching environment, the focus is on matching all aspects of the curriculum with what students do. Teaching methods and assessment tasks are aligned to the learning activities stated in the intended outcomes so that students

‘construct meaning through relevant activities’ (Biggs, 2003a, p. 1). A constructively aligned learning environment is structured so that students are more likely to engage in these learning activities. Assessment should explicate what it is students are expected to learn and measure student attainment of the learning outcomes. Therefore, assessment is the way teachers and students can establish whether each of the learning outcomes has been met. As Biggs (2003b, p. 164) argues, ‘assessment is the senior partner in learning and teaching. Get it wrong and the rest collapses’.

The purpose of this paper is to discuss how assessment was used on a design course to work toward ‘getting it right’ by improving the learning experience. It describes an action research project used to communicate the first phase of ongoing investigation into assessment practice within a design education context. This method was selected as it is well suited to the needs of researchers conducting research in their workplaces who have a focus on improving aspects of their own practice (Blaxter, Hughes, & Tight, 1996, p. 64). The initial case study (part of which was reported in Ehmann, 2005), took place on a BA (HONS) Graphic Design course in the UK. However, recommendations from this case study, were implemented in a different context on a BA (HONS) Communication Design course in Australia. Issues discussed in this paper are contained within the parameters of the Australian context. For the purposes of this paper, assessment encompasses all those activities undertaken by teachers and students which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged (Black & Wiliam, 1998, p. 2). The paper examines how assessment was used in a graphic design course to define what is important for students to learn, and then to link this with learning activities that support assessment tasks and improve the learning experience.

### **Teaching and Learning Activity in Design Courses**

In a study of non-completion Art and Design students in England, the quality of the student experience is cited as one of the three dominant influences in their premature departure from their course of study (Yorke, 2002). Yorke (2002, p. 116) suggests that this may be connected to the way in which programs in Art and Design are typically delivered, which he characterises as students generally being expected to get on with their creative activities. Yorke speculates that there may have been insufficient structure in the course for those students who withdrew. Ashton (1997) proposed a solution to insufficient structure through more effective and appropriate planning. It is worthwhile for design educators to take note of this, particularly in relation to often used approaches to design teaching and learning which encourage close contact, often one-to-one (Davies & Reid, 2000). This type of learning environment is teacher-focussed and largely dependent on the teacher transmitting knowledge.

Drew (2000) draws on a number of studies to argue that it is the way in which teachers conceive of and approach teaching that encourages deep learning and that this factor is more significant than the characteristics of individual learners. Teachers who conceive of teaching as helping students develop or change their conceptions are more likely to create a learning environment that concentrates on peer learning and process (Drew, 2000, p. 191). Integrating assessment into learning activities has the potential to significantly influence perceptions of the learning environment so that it encourages interaction rather than transmission.

### **Assessment in Design Courses**

Design education poses interesting pedagogical problems: it is traditionally practice-based, project-based and involves assessment without formal examinations. Design education is somewhat neglected within educational research, perhaps for reasons of its non-standard

procedures and methods. With few exceptions, one significant area of neglect in design education research is assessment. Davies (1996) is notable for highlighting assessment issues in design education, and that within design courses assessment has tended to concentrate on the outcome—the artefact—rather than the process of learning. One consequence of this has been that students are encouraged to take a surface approach to their learning, where they are ‘planning work to please the teacher rather than making sense of a complex world’ (Davies, 1996, p. 329). This may appeal to teachers, in part, because it is easier to assess, but it also encourages an approach to learning that is passive.

Design assessment does need to take the artefact into account. However, it also needs to recognise that student participation can increase when their learning is placed in a realistic context (Brew, 1999). This requires the introduction of assessment that gives a greater weighting to process. Assessment that places the emphasis on process allows students to develop an understanding of how they work—i.e. the journey is the destination. The assessment of process also has the potential to recognise the importance of student conceptions of their learning where design can be seen “as a platform from which to explore their own perceptions of a complex world and modify them in light of new experiences” (Davies & Reid, 2000). It can encourage a deeper approach to learning where risk-taking and discovery are emphasised, rather than a surface approach where work is done ‘to please the teacher’. Gibbs (1995) cites the use of portfolios in graphic design courses, where the quality of the outcome is moderated by evidence about process. However, ‘how’ this occurs within assessment is not necessarily made clear to students. If a function of assessment is to capture time and attention (Brew, 1999; Gibbs, 1999), then process must be given a weighting in assessment, and learning activities must motivate students to engage in that journey.

### **Initial Case Study**

The initial case study that forms the basis of this paper evaluated an assessment and feedback mechanism introduced on a BA (HONS) Graphic Design course in the UK. Both quantitative and qualitative methods of data collection were employed. Analysis of data collected from a questionnaire survey given to 46 second year students (response rate was 85%) assisted in forming questions for follow-up semi-structured interviews. Questionnaire respondents were anonymous but interviews were conducted with 19 students and 4 staff. Student interviews took place in established peer groups of 4-5 students. This was partly because the timing of interviews coincided with the end of their study for the year, but it was also considered that interviewing students in established peer groups might offer a less threatening atmosphere. Interviews were recorded and transcribed for analysis.

Assessment requirements were communicated to students in a project book handed out at the beginning of the semester. This contained project details including learning outcomes, assessment criteria, the assessment sheet, deadlines, weighting for each project and any other specific requirements. The assessment sheet drew attention to ‘how’ marks were awarded, 50% for process and 50% for outcome, as well as ‘what’ was assessed, the criteria. The criteria related directly to the design process. Students were given models of good performance that evidenced the relationship to the assessment criteria. Peer groups, comprising 4-5 students, formed the basis for learning activities within the classroom. Assessment was used to help students understand learning outcomes, to offer timely feedback so that students could understand how to improve their work, and, to encourage student involvement in their learning.

Peer-assessment took place as part of the learning activity during class. Students also undertook self-assessment at the end of the project by rating their work against the criteria. This served a dual purpose. Because staff rated student work against the criteria, students could compare their ratings against staff ratings. There was also the potential to create a space for dialogue where students could engage in discussion, negotiation and argument (Brew,

1999). Feedback had always taken place. However, the assessment sheet and the learning activity had the potential to: focus students and staff on what was important; facilitate student participation; offer the opportunity for students to express their understanding; and, help students develop the skills necessary for critical thinking and reflection.

### **Findings from the Initial Case Study and a Response to its Recommendations**

Data from the initial case study conducted in the United Kingdom raised a number of problems with design assessment. Analysis of this data produced a series of recommendations which formed the basis for the Communication Design course design in Australia. The response to recommendations is based on information from student peer-assessment sheets, observation of as well as participation in student groups, and information that has been informally communicated to this researcher by students in discussions after the activities were completed.

#### ***Relevance of the Assessment Criteria***

Students' perceptions related to the relevance of the assessment criteria are briefly discussed to support the fact that they were viewed as important to their learning. Gibbs (1995) states that in student-centred approaches to assessment, criteria and marking need to fit the nature of the tasks and the actual learning achievement expected from a particular method of assessment. There was evidence from both the student questionnaire and the follow up interviews to support the relevance of the criteria to students' project work. This was either rated as very important or somewhat important on the questionnaire. In the follow up interviews all respondents except one indicated they were relevant to their project work. Responses from student questionnaires and interviews suggested that assessing the process of design as well as the artefact would improve their learning. Two typical responses from the anonymous student questionnaire survey were:

All (of the) criteria have to be looked at individually in graphic design; therefore all (of them) are relevant.

You should consider all of these (criteria) in design—the criteria are) useful as a learning process.

A similar view was expressed in the interviews:

It's opening up your mind. You're forced to think about it, to follow different ideas, not just come up with one idea. In a way it forces you to think more creatively (Student B)

I think it helps you a lot. It makes us realise it's as important as outcome. The emphasis helps us to get from the start to the finish....It makes you actually sit back...and say...'Have I actually looked at everything?' (Student D)

Yeah, with the emphasis on process it definitely lets you know...how you're getting on in a project. (Student O)

#### ***Defining Levels for the Assessment Criteria***

A problem identified in the initial case study was the absence of level descriptors for each of the assessment criterion. The assessment sheet did contain the assessment criteria and offered guidelines in relation to what was expected. The absence of level descriptors meant that students were less likely to internalise what they were expected to achieve. The research of Rust, Price, & O'Donovan (2003) supports the significance of defining levels of achievement

and their model has influenced the approach to clarifying levels for the assessment sheet. While it is understood from their research that defining levels of attainment is not sufficient to develop a shared understanding of expectations, it was considered an important step in working toward a shared understanding. An example is offered in relation to a group presentation of initial research, where one assessment criterion is presentation. For the purposes of this paper, two levels, unsatisfactory and excellent are described:

**Unsatisfactory.** Evidences significant issues with communication. For example: the structure hinders communication; statements are unsupported; the presentation is too long or wanders from critical issues; there are significant issues with grammar or spelling that hinder communication.

**Excellent.** Evidences a professional approach that enhances communication. For example: the structure clarifies and enhances communication; statements are supported using appropriate resources; the communication is concise and remains focussed on critical issues.

Defining level descriptors has the potential to clarify levels of expectations for students, however, it can also be beneficial for staff. In an interview from the initial case study, Teacher B states,

It [the assessment sheet] clarifies for me what we are marking and makes me look at all aspects of the student work.

Also, defining level descriptors can make giving feedback to students even easier (Rust, Price, & O'Donovan, 2003) as well as remind students and staff of their responsibility in relation to the assessment task. As Teacher D states,

The students have to explain themselves and we have to explain ourselves to the students. There is no way you can fudge anything because it is there in black and white.

### ***Using the Assessment Criteria to Modify the Teaching and Learning Activity***

There is evidence from the initial case study indicating that during the project the criteria were not used to focus feedback in order to improve overall learning. For example:

I didn't really discuss the criteria at all with students during the project.  
(Teacher A)

I think if I had looked at (the criteria) a bit more, it might have helped me more. (Student D)

A recommendation from Ehmann (2005) was that assessment criteria and the use of the assessment sheet should be embedded in classroom practice during a project through its use in peer-assessment. This rests on the understanding that peer-assessment has the potential to encourage thinking, increase learning, increase student confidence, and give students greater insight into the assessment process (McDowell & Sambell, 1999). Students in one peer group now peer-assess the work from another group with guidance from staff. A practice marking exercise preceded this task. Work was rated against the criteria and feedback offered. Students indicated that they found the task stressful and daunting, particularly in relation to rating someone else's work, but that it also helped them to think more deeply about what was important to learn which was reflected in the assessment criteria. Ehmann observed, as well as took part in, discussion and debate concerned with understanding criteria and the levels of achievement. The atmosphere during this task was lively and focussed which supports its relevance as a learning activity. A review of the assessment sheets also indicated the usefulness of the learning activity; although there was some evidence of feedback directed

toward 'pleasing the teacher', overall, students genuinely attempted to offer their peers feedback in order to encourage improvement.

As part of their project, students were required to present an initial 'response map' midway through the project. This included initial research, conclusions from the research and initial concepts derived from research. Again, students undertook peer-assessment, then the following week during class time they undertook a reflective exercise where they were asked to review peer feedback in order to define areas for improvement. Each student was required to produce a written response to this exercise. Specifically, they were asked to be critical in relation to decisions made and actions taken in order to examine the project purpose as well as reflect on choices that had been made. Peer groups then discussed each individual's written response in order offer additional feedback. The purpose of such an exercise was to generate appropriate learning activity and quality of attention required for learning (Biggs, 2003a, Biggs, 2003b; Gibbs, 1995). Students in this research indicated that the experience helped them re-examine what they were trying to communicate through their project, and that feedback from peers offered alternative possibilities for future action. The focus for the learning activity was on students constructing meaning, rather than on the teacher transmitting knowledge.

## Conclusion

The research focussed upon a 'non-standard' educational domain, design education, and the role of assessment within it. Consistent with results from 'standard' educational domains, it found that assessment has the potential to define 'what' is important for students to learn in order to focus students' time on assessment tasks. It has also argued that integrating assessment with learning has the potential to align teaching methods and assessment tasks to the learning activities stated in the intended outcomes. If assessment is the main focus for student allocation of their time and attention, then educators must explore ways to use assessment to encourage the development of learning as well as actively involving students in that learning. A final point of interest is that despite the difference between the standard and non-standard domains, assessment protocols offered the same pedagogic opportunities.

## Notes on Contributor

**Debra Ehmman** is Education Development Coordinator and Lecturer in Communication Design at Swinburne University of Technology in Melbourne Australia. She was a Senior Lecturer in Graphic Design at Southampton Institute in the UK. She has completed a Masters in Educational Improvement and Effectiveness at Keele University, a Postgraduate Certificate of Teaching and Learning in Higher Education at Southampton Institute, a BA (Hons) Degree in Design at the University of South Australia, and a Degree in Anthropology at Adelaide University. Research interests relate to design education with a focus on assessment.

**Address for Correspondence.** Swinburne University of Technology, High Street Prahran, Melbourne, Australia. Email: [dehmann@swin.edu.au](mailto:dehmann@swin.edu.au).

## References

- Ashton, P. (1997). Learning together – an exploration of how students use each other as a resource for learning. In Rust, C., and Gibbs, G. *Improving student learning: improving student learning through course design* (pp. 52-60). Oxford: The Oxford Centre for Staff and Learning Development.

- Biggs, J. (2003a, April). *Aligning teaching and assessing to course objectives*. Paper presented at Teaching and learning in higher education: new trends and innovations conference, University of Aveiro, Aveiro, Portugal.
- Biggs, J. (2003b). *Teaching for Quality Learning at University* (2<sup>nd</sup> ed.). Berkshire: Open University Press.
- Black, P. & Wiliam, D. (1998). *Inside the black box: raising standards through classroom assessment*. London: School of Education, Kings College.
- Blaxter, L., Hughes, C. & Tight, M. (1996). *How to research*. Buckingham: Open University Press.
- Boud, D. (1990). Assessment and the promotion of academic values. *Studies in Higher Education*, 15, 101-111.
- Brew, A. (1999). Towards autonomous assessment: using self-assessment and peer assessment. In Brown, S. & Glasner, A. (Eds.), *Assessment matters in higher education: choosing and using diverse approaches* (pp. 159-171). Buckingham: Open University Press.
- Davies, A. (1996). Assessment and transferable skills in art and design. *International Journal of Art and Design Education*, 3, 327-331.
- Davies, A., & Reid, A. (2000). Uncovering problematics in design education: Learning and the design entity. Paper presented at *Reinventing Design Education* conference, Curtin University, Perth, Australia, December.
- Drew, L. (2000, December). *A disciplined approach: Learning to practice as design teachers in the university*. Paper presented at Reinventing Design Education conference, Curtin University, Perth, Australia.
- Ehmann, D. (2005, November). *Futuregraduate: the role of assessment in design education*. Paper presented at Futureground conference, Monash University, Melbourne, Australia.
- Gibbs, G. (1995). *Assessing student centred courses*. Oxford: Oxford Centre for Staff Development.
- Gibbs, G. (1999). Using assessment strategically to change the way students learn. In Brown, S. & Glasner, A. (Eds.), *Assessment matters in higher education: Choosing and using diverse approaches* (pp. 41-53). Buckingham: Open University Press.
- Heywood, J. (2000). *Assessment in higher education: Student learning through assessment and evaluation*. London: Jessica Kingsley Publishers.
- McDowell, L., & Sambell, K. (1999). The experience of innovative assessment: Student perspectives. In Brown, S. & Glasner, A. (Eds.), *Assessment matters in higher education: Choosing and using diverse approaches* (pp. 71-82). Buckingham: Open University Press.
- Rust, C., Price, M., & O'Donovan, B. (2003). Improving students' learning by developing their understanding of assessment criteria and processes. *Assessment & Evaluation in Higher Education*, 28, 147-164.
- Yorke, M. (2002). The student experience in art and design— some issues arising from research on non-completion. *Art, Design and Communication in Higher Education*, 2, 115-118.