Developing a Language for Assessing Creativity:
a taxonomy to support student learning and assessment

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Introduction

"Creativity" is not easily defined and therefore is difficult to assess. Yet we still need to work towards a way to "provide an infrastructure to defend and support marking decisions" about assessment (Bloxham & Boyd 2007 p.88) that recognises creativity within our own pedagogic context. With particular reference to Art, Media and Design, this paper explores how departments could develop a language of creativity that works towards reinforcing meaning and interpretation, not only for formative and summative assessment, but also for grade and level descriptors, curriculum design, and subject benchmark statements.

Why is there a need to develop a language for assessing creativity?

As Gordon (2004 p.62) notes, "[t]eachers within the creative arts and media frequently are or have been practitioners". But does this experience give us the armour needed to assess fairly, plainly and without bias or subjectivity? Cowdroy and Williams (2006 p.98) admit that when assessing students' work, tutors in the creative arts have tended to rely on their intuitive understanding of creative ability and "what we teachers like" about the work. Care has to be taken if the work is a product of the tutor's influence, like an old master's apprentice, that you are marking the ingenuity or lateral thinking – the "wow factor" – not just an execution of ideas under guidance. With a diverse group of academics, creativity may have many meanings, but the "knowing it when they find it" approach is no longer acceptable (Gordon 2004 p.62) – especially where students are undertaking joint courses, where completely different marking schemes and expectations of the cohort are experienced.

The misinterpretation of feedback also needs to be addressed, since while "the value of feedback depends upon the student's particular conception; students who do not yet share a similar understanding of academic discourse as the tutor would subsequently have difficulty in understand and using the feedback" (Weaver 2006 p.380). This can result in disappointed, disheartened, and even demoralised students, who will lack confidence for future learning.

Therefore we need to work towards a discourse about "creativity" among hourly paid lecturers, module leaders, course leaders, subject areas and departments, to find solutions that aid the assessment and evaluation process, while providing students with explanation and reasoning for the diverse assessment practices, relating to the creative process and product.

How can the department establish a language for assessing creativity?

Indeed, as Jackson *et al* (2006 p.169) argue, "it should be possible to separate subjective judgements of creativity from judgements of technical goodness and from judgements of aesthetic appeal. It is important to demonstrate that it is at least possible to separate these dimensions". Using mechanisms such as departmental or team workshops (see Jackson 2005 for a good model), tutors could have the opportunity of debating how words from their own practice and professions could be added to a taxonomy aimed at building a "language of creativity".

However, taxonomies may have to be developed that are level-, subject- and even module-specific. This could be put into practice as long as the framework for courses allows flexibility and students are made aware of the relative meanings within grade descriptors, aims and objectives or learning outcomes, as well as briefs. For the students to understand the taxonomies and the assessment criteria and processes, workshops could be implemented within modules for explicit discussion of their meanings.

Second marking helps towards limiting subjectivity as "research has found evidence of subconscious bias in relation to factors such as cultural origin, gender and confidence" (Bloxham & Boyd 2007 p.94), the latter being a particular problem with novice staff. Current practice in Art, Media Design is that only 20% of the work needs to be second-marked; however, if that 20% is marked before the other assignments, in combination with grade descriptors and assessment criteria, this sets the tone for the rest of the marking.

Supporting student learning and assessment through a taxonomy for creativity

From a review of the literature and educational practice, it is clear that the process is as important as the product or output when assessing creativity. A mapping of learning and teaching sequences could give us an insight into where and how to assess the creative process and output, and where to implement and discuss a "language of creativity". This will also allow us to develop grade descriptors to fit module learning outcomes.

To that end, Bloom's taxonomy of educational objectives has been aligned with a typical learning sequence from BA Interior Design and Technology (see Figure 1). It

shows that even though Bloom conceives a hierarchy of learning, the reality is that the process is cyclical. Indeed, even when we arrive at the summative assessment, this is just a point in time, as the process could continue further. The summative assessment process and the subsequent feedback on it should work towards the future learning of the student, maybe contributing to spiral learning.

Bloom's Taxonomy	Interior Design Technology BA (Hons)
	Assignment Brief
1. Knowledge	Research
2. Comprehension	Reflection/Analysis
3. Application	Process
4. Analysis	Reflection
5. Synthesis	Synthesis
6. Evaluation	**Concept**
5. Synthesis	Practice and Process
4/5 Analysis/Synthesis	Development/Practice and Process
3. Application	Creative Output
6. Evaluation	**Critique** (Formative Assessment)
4/5 Analysis/Synthesis	Development
3. Application	Creative Output
6. Evaluation	**Presentation/Critique** (Summative Assessment)

Figure 1: Teaching and Learning Sequences in Design Disciplines

The learning sequence shows that the creative process is being developed throughout the module.

A taxonomy of creativity has potential benefits for students, as McKillop (2006 p.132) explains: "A student in art and design often brings considerable personal experience into the subject matter of their work and can often find it difficult to step back and view their work objectively, so it is important to understand how they feel about having their work assessed". By giving students opportunities to develop and analyse and reflect on their 'creativity' in stress free situations, the assessment process could be less daunting. Using such a taxonomy as a tool, ongoing discourse about creative processes and outputs should be present throughout our modules.

This approach can help students to consider the appropriateness of novel ideas: as Sternberg (2001 citied in Dickhut 2003 p.3) observes, a "creative and intelligent person may produce a novel idea, but without wisdom, the novel idea may be 'foolish' or inappropriate" (also see Craft 2006). It can support formative assessment, which "should provide feedback to students to allow learning to be enhanced and is considered to be the lifeblood of learning" (Trotter 2006 p.507). In addition, for students to understand what they are being assessed on, clear criteria and grade descriptors that include descriptions of creativity need to be developed.

A *Taxonomy of Creativity* which extends the Bloom model has been devised by the author in consultation with teaching peers and students. Figure 2 shows how learning outcomes and the Taxonomy of Creativity are at the hub of designing assessment modes and points, while establishing an explicit approach to the assessment process – allowing tutors to develop assessment criteria and grade descriptors, and the students to take part developing their own criteria for formative assessment points.
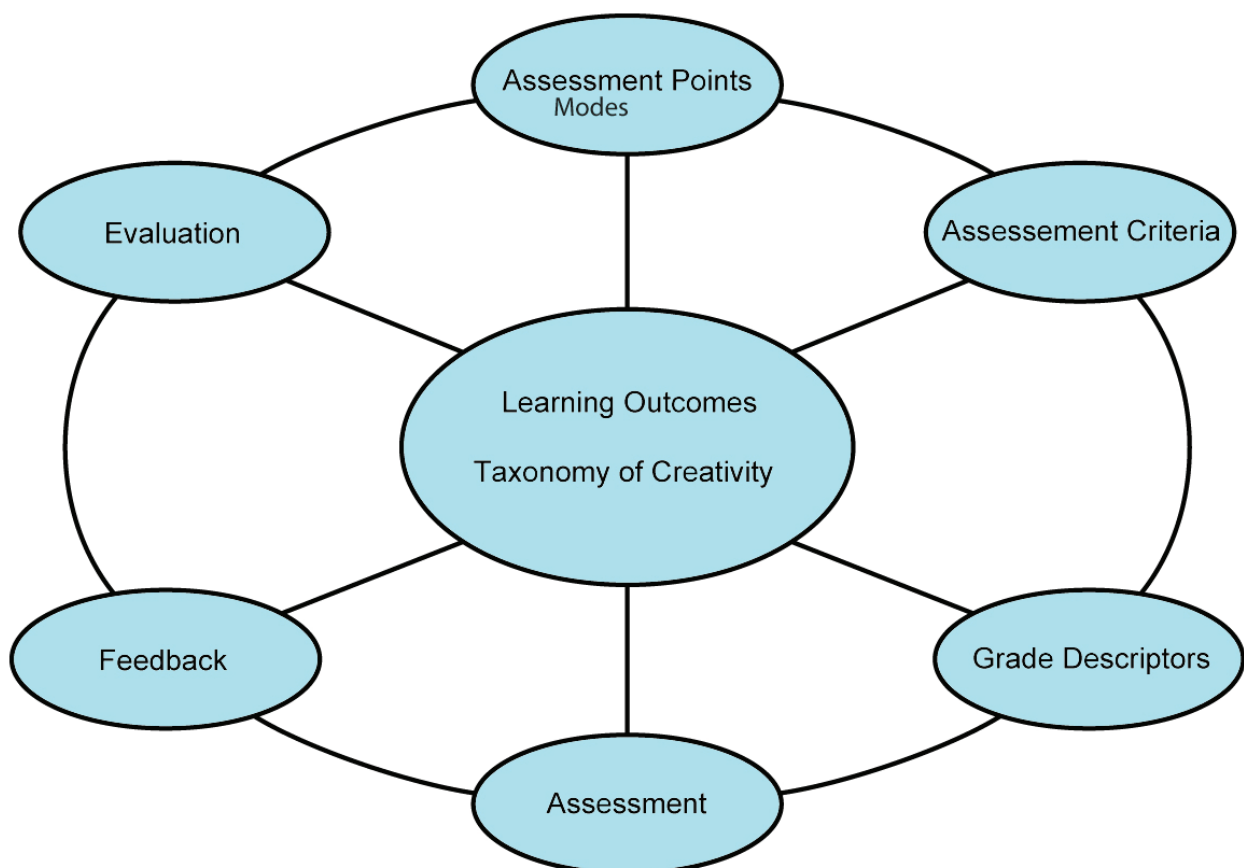

Figure 2: Aligning Assessment with Learning Outcomes and a Taxonomy of Creativity

Assessment methods to develop student understanding of a language of creativity

As Pope (2005 p.51) reiterates, "[i]t is generally accepted that in order to properly assess a student's knowledge, an educator needs access to-and the use of-a variety of assessment methods". Without such methods students lack the encouragement and means for independent study: "Ellis (2001) suggests that the advantages of self- and peer assessment relate to student involvement, independence and assertiveness" (*ibid.*). With this 'assertiveness' students are encouraged to take risks and even fail in order to understand and resolve a 'creative output' and "need to know that credit will be given for 'dangerous work' that pushes boundaries" (Gordon 1996 p.64).

These ideas, if put into practice, can aid teaching and give students opportunities to demonstrate, practice and analyse their creativity and reflect on feedback within a formative structure. The understanding of the feedback is paramount for the students learning: for example, Wojtas (1998 cited in Weaver 2006 p.381), claimed that "many students improved their work once they understood the purpose of feedback and assessment criteria. Using Kolb's (1984) model of professional development, the self-reflective cycle of observation, reflection, planning and action can contribute towards the summative process and encourage independent learning (Trotter 2006).

Below are is a list of formal and informal assessment methods through which the students understanding of creativity and its meanings can be developed and assessed:

Brainstorming	Informal
Games	Informal
Targeted Questioning	Informal
Group work	Formal and informal Assessment
Tutorials	Informal
Critique	Formal and informal Assessment
Peer Assessment	Formal Assessment
Self Assessment	Formal and informal Assessment

The opportunities of formal assessment are numerous, however, care must be taken not to over-assess students, nor over-complicate assessment procedures. When it comes to gauging students' understanding of creativity, informal assessment methods can be as equally informative for both tutors and students. One of the most effective methods is group work, formally assessed or part of the teaching and learning process. As Cooper and Jayatilaka (2006 p.154) comment, "[t]he capacity for cross-fertilisation of ideas along with thorough problem exploration makes interacting groups potentially more creative than individuals" (also see Jackson *et al* 2006).

Conclusion

By encouraging a dialogue between staff and students, using workshops and formative processes as forums to discuss and debate the meaning of creativity as understood within different departments and subject and professional areas, protocols can be established to align our teaching with our assessment strategies. Promoting the development of a language of creativity that is discipline-specific, yet is recognised across the department, can contribute to limiting subjectivity within assessment practices. Encouraging subject, course and module leaders to identify possible formative assessment points throughout the semester, without over assessing, can serve to reinforce and explain creativity, not only within an assessment context but as part of the overall teaching and learning structure, through group work, games and exemplars.

At the same time, encouraging tutors to use grade descriptors and take a holistic approach to assessment can help the students to recognise " the intrinsic meaning of the target performance (Biggs 2001 p.153), taking into account both the process and product, and supported by formative, peer- and self-assessment. This approach, tied into a language of creativity can enable the students to understand and realise their targets, and enable tutors to mark fairly and more consistently.

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Biographical note

Janette Harris joined London Metropolitan University in 2005 as a Senior Lecturer in Interior Design and Technology having spent the previous 18 years in industry as a 3D practitioner, working with artists, designers and architects.
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