Developing a Strategy for Assessing Creativity: the Creative Spiral

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> *'It is clear that there is no one definition of creativity that can be agreed upon. Also, not surprisingly, given the problems defining it, the measurement or assessment of creativity also poses many problems'.* Kleiman (2005)

Context

After a decade of professional practice within animation for film and TV I entered teaching, with no prior experience. At that point I considered myself to be a 'visual' learner. Thus I approached my first assessment procedure with some trepidation. In retrospect, I felt that a structure in the form of a diagram or visual aid would be beneficial to enable both students and novice teachers within art, media and design (ADM), essentially visual practices, to understand and design assessment procedures that accommodate creative input. This paper presents such a resource – the Creative Spiral – devised by the author, and the rationale behind it.

As teachers in higher education (HE) we endeavour to devise appropriate means and methods for establishing assessment criteria, undertaking the assessment process and giving feedback which will recognise and value creativity whilst fulfilling requirements set by quality and standards boards.

From earlier research into 'process' versus 'product' in relation to assessing creativity (Harris *et al* 2008) within ADM, it was clear that as an element of the creative process itself, *process* is as important as *product*. Jackson *et al* (2003) cite the following reasons for engaging students in a structured 'process for learning':

- To develop the skills and habits of evaluating/judging their own learning and learning needs.
- To make observations and keep records of *what* has been learnt and *how* it has been learnt as a source of personal knowledge and as a way of evidencing learning for assessment or accreditation purposes.

Jackson *et al* (2003) believe that students need to be energized, believe in themselves and be motivated by themselves and their peers to create an environment for learning. They suggest that through assessment methods we can

encourage this atmosphere - and to carry this through imaginatively and creatively the process may involve doing new things and taking risks, being personally exposed and uncomfortable, having feelings/emotions/conflict/fun and excitement.

To enable students to progress 'creatively', teachers should be able to help students identify creative input both in their own and peer projects, and reflect and evaluate as part of the assessment process. To encourage progress within a project students need opportunities for peer and tutor feedback, provided they are given at an early enough stage with time to act.

To establish what is required of students it is helpful if they are equipped with assessment criteria and marking schemes from the outset, designed to allow flexibility for creative input and to discourage 'grade-chasing'. These are also required for consistency in marking (Bloxham & Boyd, 2007), especially as students are often assessed by a team of markers. General criteria that give a framework of characteristics or qualities against which the students' performance can be judged (Gosling & Moon, 2001) may be effective. Cropley (2003) suggests that focusing on properties closely related to the real-life practice of the discipline in question can prevent grade-chasing, and recommends performance-based assessment such as portfolios.

To make a fair assessment of a student's work we need to understand the processes they have undertaken to produce the work. To do that we may best employ a variety of assessment tools allowing for diversity of learning approaches and also to identify situations where there are weak products / solutions but where the journey shows promise (or vice versa).

An Assessment Framework for Creativity: the pros and cons of RADSE

RADSE (Research, Analysis, Development, Solution, Evaluation) is an assessment method currently used in computer animation that could be employed as a general framework for assessment in ADM, as it allows for the assessment of creativity. It is a flexible structure permitting consideration of both process and product which does not require 'single instrument' tools and provides a basis for formative and summative assessment. It also provides a stable construct for component-based assessments such as portfolios. The flexibility of the framework allows for intrinsic motivational content to be in-built.

The basic constructs of the RADSE system:

▪ *Research* – these elements depend on discipline but could cover gathering reference materials in a scrap/sketchbook, mind-maps and other examples of free-association. These can be presented as portfolio components or formatively during critiques ('*crits*').

- *Analysis* might be redrawing or exploring materials in greater depth and extracting specific information. The analysis might appear in a sketchbook presented as part of a portfolio or during a critique.

- *Development* is where materials are taken apart, examined, compared and reformed or constructed. Research, analysis and development material generally form the basis for mid-term feedback sessions, can be individual tutorials or group presentations.

- *Solution* - the stage of summative final critique, tutorial or final hand-in, work can be submitted as an individual piece or as part of a portfolio.

- *Evaluation* - students self-assess and reflect on possible areas for improvement, encouraged as an ongoing process through the medium of a workbook or reflective diary for recording issues/troubleshooting during creation of an assignment and later used to inform future work.

A drawback with RADSE, however, is that it appears to be linear and hierarchical - unlike creativity itself, which is perhaps better described as a circular process (cf. Kolb, 1984). I realized that I would need to refine or evolve the current RADSE structure and consider a more 'rounded' approach.

On examination of the creative process in relation to RADSE often there is no clearly identifiable starting-point, in that we are as likely to begin with the solution and work back toward analysis. This can be illustrated by the example of the 1917 work 'Fountain' by surrealist artist Marcel Duchamp. He discovered the piece of 'art' or urinal during the research stage of his work and subsequently as a 'found-object' it became the solution. He conceptualized the object, forming an analysis and evaluation. Indeed, artists/designers can arrive at a solution through serendipity as illustrated, yet still need to examine the processes in order to justify that the solution is the most appropriate.

Within computer animation it was often reported in evaluations that significant numbers of first-year students in their first semester had difficulty with the RADSE scheme. On analysing these evaluations of a previous cohort of 60 I noted significant numbers reported difficulties with the assessment scheme rather than with the work itself. However, in subsequent evaluations students no longer reported confusion, suggesting they had become familiar with the system and no longer felt it problematic. Thus, while the first year of a degree course can provide an opportunity to familiarize students with the constructs of assessment frameworks, we must facilitate those who become de-motivated with the system itself, for where we allow assessment formats to dominate, this can clearly inhibit creativity.

Towards a non-linear, non-hierarchical framework: the Creative Spiral

To enable students to identify what they might develop in future work and to encourage the creative process, I have attempted to combine my research into assessment frameworks with Harris et al's (2008) research into the language of assessment, plus some of Jackson et al's (2003) language for 'process for learning', to provide a visual aid with a creative syntax.

The resultant Creative Spiral prototype (Figure 1) is designed to assist students and teaching staff understand how to work with assessment issues to accommodate the creative process within ADM. This format seems appropriate as it is aimed specifically at students and teachers involved in the visual arts who are more likely to be 'visual learners' and as such respond to a 'visual aid'. The hope is that they may benefit from a mechanism which visually clarifies assessment structure and may go on to assist students to become self-regulated learners in future work by deciding on tactics, monitoring, checking, revising and self-testing.

Figure 1: THE CREATIVE SPIRAL (PROTOTYPE)
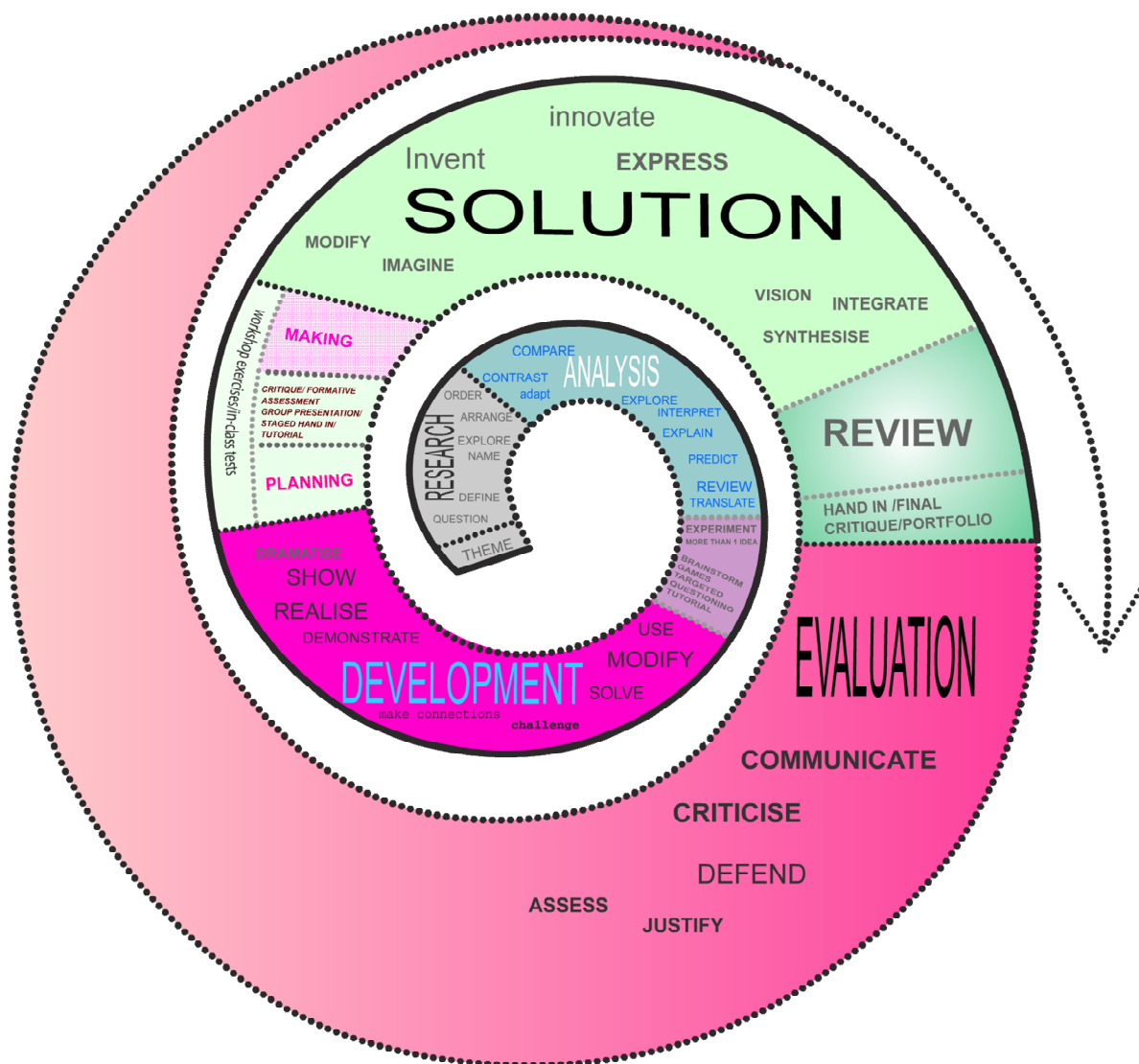
The Spiral indicates a clear need for students to experiment with more than one idea at the 'analysis' stage, to encourage alternative solutions, to be confident, persistent, determined and provide opportunity for adventure. In order to encourage self-regulation and independence it is important to choose assessment tools that encourage students to provide a variety of solutions and monitor progress to allow for revision.

On evaluating the effectiveness of RADSE I noted that it is not easy to break stages down so they neatly fit into assigned categories. In certain cases development and analysis might be too closely related to satisfactorily define them, and the separation of categories can inhibit the creative process.

Students may repeat stages before feeling sufficiently engaged with research and analysis to achieve a solution and there needs to be flexibility in assessment procedures to acknowledge that this is not uncommon and that the process can be as valuable as the product. I have included a review stage prior to hand in to provide 'space' for retrospection, review and refinement. Evaluation is indicated as a concept that embraces the entire process.

Development is a diagnostic phase of the project where teachers can gauge the strengths and weaknesses of students' performance while there is still time to take actions towards improvement (Fry et al, 2006), further to identify and stimulate elements of creative input. Creativity does not follow a formula: it is as likely to be apparent at the idea stage as at the presentation stage. It is thus important to conduct early and regular critiques/stage checks/tutorials in order to foster creativity and to teach techniques that can be learnt and applied in different situations, such as brainstorming, creative problem-solving and mind-maps. Early 'crits' can stimulate ideas and enable strategic discussion of concepts (such as cliché, homage or plagiarism) and can help identify areas for further development, generate alternative solutions and allow students to be more adventurous. Staged hand-ins specifying items submitted cumulatively - and subsequently forming a portfolio - can clearly separate and define what is being asked, for especially at first-year level.

Embracing the Technical

As the processes of art and design often require mastering tasks and techniques together with creative and conceptual skills, it is important to recognize and incorporate different approaches - or 'divergent' and 'convergent' thinking - into assessment instruments. The first is more related to creative thought processes and independent thought, the second involves drawing from a variety of sources, so as to find an answer to a problem (Hudson, 1967).

Within ADM, certain skills and tasks serve technical purposes that 'enable' creativity, whilst not in themselves essentially creative but dependent upon convergent thinking: thus both forms of thinking are necessary to produce completeness (Cropley, 2001). Where learning objectives are technical, clear demarcations laid from the outset can determine technical and creative expectations without restricting students from employing experimental and individual techniques and treatments as appropriate.

Indeed, clarity and transparency are essential in differentiating technical tasks since these often reflect the real-life practice of a discipline. The most suitable methods of assessment to mark technical tasks and skills are workshop exercises or in-class tests that differentiate skills from the creative expectations of portfolio work. As such, the Creative Spiral includes a section alongside the 'making' and 'planning' stages for the assessment of technical skills and tasks.

Conclusion

Teachers should be providing every opportunity for students to recognize creativity and to foster it where encountered. This pursuit would be greatly supported if creativity became more widely accepted as a valid and crucial aspect of *all* education: an ambitious task given the countless philosophers, artists and educators who have demonstrated that the recognition of creativity itself can be difficult to accurately describe.

Manifestations of creativity are varied, elusive and difficult to define, so within a diverse student body we will be presented with a huge potential of creative approaches. As educators we should ensure that *diversity* is recognized and allow students to work in new and interesting ways to both explore and express their creativity.

In order to encourage ADM students to develop creatively and to continue such development into future work, it is important to encourage and nurture individual aspects of work that are identifiably creative, to allow for the 'Wow Factor' and recognize that it can occur at any stage en-route to a solution, as well as in the solution itself.

By providing both students and teachers in ADM with a *structure* representing how assessment functions we can ensure consistency, clarity, transparency and fairness whilst also embracing the recognition and rewarding of creativity. Ultimately it should be the responsibility of teachers of ADM to encourage students to develop self-regulated capacities for creative performance based on higher-order thinking, utilizing a combination of both divergent and convergent thinking. Rayment (2007) provides examples of character traits and dispositions that teachers should foster, to support the development of self-regulated learning, including: generating alternative

solutions, being adventurous, self-confidence, willing to be wrong, persistence and determination. He suggests various pedagogic strategies to encourage this, such as asking questions, determining tactics, monitoring, checking, revising and self-testing.

An assessment framework such as the Creative Spiral works best when used in conjunction with marking schemes devised in alignment with an individual module's requirements. This is no 'one-size-fits-all' model, as success is so often dependent on student familiarity with the scheme. It is essential that we provide clear definitions of requirements from the outset and monitor student comprehension and engagement through feedback and evaluation.

References

Bloxham, S, Boyd, P., (2007) *'Developing effective assessment in higher education'* Open University Press

Cropley, A. J., (2001) *Creativity in Education and Learning* London: Kogan Page

Fry, H., Ketteridge, S and Marshall, S. (2003) *A Handbook for Teaching and Learning in Higher Education*: *Enhancing Academic Practice*, 2nd ed., London: Kogan Page

Gosling,G and Moon,J (2001) 'How to Use Learning Objectives and Assessment Criteria' in *How to use assessment criteria* SEEC Part 3

Harris J, Qualman C, Salamon M and Flint T (2008) 'Assessing Creativity'. Group Presentation for the Post-Graduate Certificate in Learning and Teaching in Higher Education, London Metropolitan University 12.01.08

Hudson, L (1967) *Contrary Imaginations; a psychological study of the English Schoolboy* Harmondsworth: Penguin Books

Jackson N, Kneale P, Boyle M. Shaw M, Reeves D. (2003) 'Nurturing creativity through Imaginative Processes for Learning' *Imaginative Curriculum Working Paper,* Learning and Teaching Support Network.

Kleiman, P. (2005) 'Beyond the Tingle Factor: creativity and assessment in higher education'. Paper presented at the ESRC Creativity Seminar, University of Strathclyde, 7th October 2005

Kolb, D. A. (1984) *Experiential Learning* New Jersey USA: Englewood Cliffs Prentice-Hall

Rayment, T. (2007) *The Problem of Assessment in Art and Design* London: Intellect Books

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