

## **Edging Closer to the Creative Core**

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## **Abstract**

This paper considers some of the implications in expanding the teaching of creativity to art and design students from one class, taught by one person, to numerous classes taught by a team. In the process, a range of issues have to be addressed. These involve defining what sort of creativity is being taught, how content may be adapted to a more formal presentation, how the subject might be taught and by whom. In particular, the problem of assessment is examined and especially attempts to make it more objective. Using Best's contention that the process is identified by the product, emphasis is placed on assessing evidence of creativity in terms of product outcome. However, given the importance of the creative concept, the assessment process has to be capable of detecting the level of intellectual content. It is suggested that the Novelty-Creativity Taxonomy of Kaufmann and the Hierarchy of Creativity proposed by Cowdroy and Williams offer a means to resolve this conundrum while providing the foundations for objective assessment.

## **Edging Closer to the Creative Core**

### **Introduction**

The integration of 'creativity' into the curriculum is an issue that has generated much debate. How the subject should be taught and by whom, and how it fits into a curriculum already filled with existing 'core' content are questions that are still being explored. While it is generally taken as a given that creativity is inherent in the field of art and design, questions of definition, along with issues of content and, especially, exactly what is being assessed and how it is being assessed, are now the focus of attention. These issues are examined in relation to the experience gained in teaching this subject over a period of six years. First offered as an elective in 2003, the course 'Creative Thinking' has been available to all students at Queensland College of Art Griffith University in every semester since then. Subsequently, the course has grown and is now set to expand beyond its original parameters.

### **Content and Teaching**

The course 'Creative Thinking' relies heavily on experiential learning. The term is closely associated with the work and teachings of Carl Rogers. For Rogers, the elements involved in 'significant' or 'experiential' learning are personal involvement, self-initiated learning, pervasiveness and self-evaluation.<sup>1</sup> Rogers developed this model from his work as a clinical psychologist where he began to appreciate that to obtain the best response from people certain qualities are vitally important: realness/genuineness; empathy; trust/acceptance.<sup>2</sup> As much as possible, the teaching philosophy of Rogers permeates the course 'Creative Thinking'. In applying this student-centred approach my aim is to have everyone who finishes the course using some, or all, of the creative strategies they have learned as an everyday part of their lives, that is, to change their behaviour. Creative thinking, like any other skill, is learned behaviour and, like other skills, it is achieved through regular practice. This is reflected in one of the Analects of Confucius: 'I hear and I forget. I see and I remember. I do and I understand'. Therefore, every lesson includes hands-on exercises that physically and mentally engage the students, stretching the boundaries of their abilities and changing their understanding of creativity. Students are prepared to

attempt unusual and even [at least, to some] slightly scary activities in a class that is supportive and non-judgemental.

The teaching team is very important. In developing his influential 'Synectics' methodology, Gordon observed that the selection of individuals who comprised his synectic teams, was crucially important. The wrong mix produced dismal results<sup>3</sup>. The teacher has to have certain personality traits in order to obtain successful outcomes. Enthusiasm for, and a belief in, the content is an obvious requirement. Humour, inclusiveness and empathy are essential. Humour is the human face of creativity and, quite apart from the fun it brings to class activities, is so often implicated in producing highly inventive outcomes. The attributes I am alluding to are, in fact, related more to good teaching skills rather than disciplinary-specific skills and are particularly relevant to experiential learning. Group interaction is a key element in this method of teaching. Based on my own experience of having co-taught the subject, it is clear that the content cannot be rigid and has to be adaptable to suit personal style. Conversely, when a team may be delivering essentially the same material across different disciplines it becomes necessary to formalise aspects of content and delivery. It is becoming apparent that most of these issues may be resolved through the screening of teaching staff and having those selected undertake an induction process. Also, the provision of extensive class notes and a package of well-produced slide presentations are essential requirements.

### **Risk and Randomness**

In their review of trends in creativity research, El-Murad and West [2004] conclude that, with reference to advertising success, 'taken as a whole, the evidence on encouraging and enhancing creativity underscores the inhibiting effects of self-doubt, fear of risk-taking, fear of opposition and criticism.'<sup>4</sup> By devising different ways of introducing randomness [which, if you allow it to guide your actions, is risky] into the creative process my students have produced some impressive results, especially good outcomes having come from photojournalists. This has been achieved by working within individually predetermined frameworks, and then introducing chance sequences and elements. These elements are then juxtaposed in unlikely combinations. This is a powerful technique.<sup>5</sup> An acceptance of risk, and a preparedness to take risks, with some understanding of the consequences, is a necessary part of adjusting thinking

into a more creative mode. Class exercises include, for example, having to divide pieces of card using only scissors. This forces participants to do something irrevocable, to actually cut into the card. It is risky and there is no going back: you cannot unmake a cut. The atmosphere may be supportive but often the exercises, simple as they appear, can be difficult and even confronting to some people.

An essential part of the course is a full three-hour session of 'Impro' [or 'Improv'] activities<sup>6</sup>. This is a cathartic activity where everyone is physically involved. Improv activities are inherently risky and you really cannot be certain of what is going to happen next. The range of activities demand immediate responses and generate attentiveness to the reactions and feelings of others, acceptance of others, a reduction of self-conscious embarrassment, and a lot of laughter! At the end of the session the members of the class always feel very energized and much more comfortable with each other. It bonds the group in a way that stays with them for the whole semester.

It could be argued that art and design institutions do not need a specific course in creativity when every member of studio teaching staff considers her/himself to be creative. However, while teachers are committed to inculcating creativity in their students, the way in which creativity is taught does not always follow a coherent structure. For example, it may be associated with technical skill. While technical skills are necessary to realize creative concepts, no amount of painterly skill or software knowledge alone will deliver creative outcomes. Still, aren't all art and design students inherently creative? One of my students, said: "We are expected to be creative because we're in an art college, but hardly anyone teaches us the techniques to be creative". Staff expect their students to be creative upon arrival, although this quality may be more potential than real, and this potential needs appropriate nurturing. According to Cowdroy and de Graaff [2005], teaching in art and design follows four main traditions, which they identify as the 'gift', the 'innate', 'studio apprenticeship' and 'reproduction'. These may be summarised as: Gift—a sort of divine inspiration that is as likely to be sullied by teaching as helped by it; Innate—you have either got it or you have not, but it may be nurtured; Apprentice—you absorb it through association with living masters, and; Reproduction—copy past masters to gain skills. As the authors note, these traditions do not concentrate on imaginative conceptualization. They make the point that 'conceptualization is the essence of creativity; and if this is neither taught nor assessed, then it must be accepted that

creative ability as a whole is neither taught nor assessed.’<sup>7</sup>. The difficulty for the teacher is that conceptualization may not be assessed directly but only through a student’s understanding of her or his own concept in terms of the appropriate philosophical and theoretical frameworks that relate to the creative outcome, what has been called ‘Authenticative Assessment’<sup>8</sup>. This may involve working backwards from the end product and associated documentation to detect the intellectual underpinnings. It is, therefore, important to clarify what sort of creativity is being assessed and how it may be assessed as objectively as possible, all the more so if the same course is taught across a range of disciplines.

### **Definitions and Assessment**

Assessing the level of creative output requires agreement on which aspect of creativity is being assessed and how best it may be measured.<sup>9</sup> Having reviewed 120 definitions of creativity, Treffinger et al noted the need to adopt a specific definition in order to clearly assess the characteristics one intends to assess.<sup>10</sup> After reviewing numerous tests of creativity, the conclusion drawn by Feldhusen & Goh was that ‘The best direct indicators derive from product assessment or from inventories of creative activities and achievements.’<sup>11</sup> A characteristic outcome of the practice of art and design is the product. This does not deny the process behind the creation of the product, but it does forefront the need to have tangible evidence of creative thinking. Accordingly, from the outset, I adopted the parameters proposed by Best [1982] as the basis of my approach to teaching creativity. It does, therefore, inform the way I assess student outcomes. These are amongst the preconditions that Best, taking a philosophical approach to the topic, considered to be essential:

1. The process is necessarily identified by the product.
2. Creativity is not a mental state or activity distinct from the forms in which it could be expressed.
3. Creativity grows out of and therefore depends upon cultural traditions.
4. A necessary condition for creativity is to have acquired the requisite techniques.
5. There are objective criteria for creativity.<sup>12</sup>

Best's framework requires elucidation; For example, how is the creative product assessed and by whom? The operational definition of creativity arrived at by Amabile provides one answer:

'A product or response is creative to the extent that appropriate observers independently agree it is creative. Appropriate observers are those familiar with the domain in which the product was created or the response articulated. Thus, creativity can be regarded as the quality of products or responses judged to be creative by appropriate observers, and it can also be regarded as the process by which something so judged is produced.'<sup>13</sup>

Experts are, by definition, skilled in the technique of their specialisation. Also, their expertise has to be an expression of certain attributes of a cultural tradition, otherwise it would not be recognised as such. Therefore, the use of expert observers would combine the cultural and technical requirements demanded by Best. Amabile goes on to contend that a definition based on process is not feasible, and that the most useful definition for empirical research is one that is based on an examination of products<sup>14</sup>. Amabile, however, in contradistinction to Best, struggles to arrive at a means of assessing creativity that is wholly normative, and cannot avoid a degree of ipsative criteria, believing 'it is not possible to articulate objective criteria for identifying products as creative.'<sup>15</sup>. The reason being that, ultimately, the judgement of observers is subjective. Hence her 'Consensual assessment technique' [CAT], that relies on a number of observers whereby individual bias is ameliorated—an approach that would be familiar to most teachers of art and design. She also notes that creativity frequently correlates with technical quality and high-level creativity in certain fields is not possible without an extraordinary command of technique.

That there are objective criteria for judging creativity appears to be the one condition of Best's with which Amabile is not in agreement. Having had to assess specifically creative outcomes for some years now, I have found myself inevitably siding with Amabile while, at the same time, seeking ways of making the process more objective.

With Best's definition providing the foundation, the means of assessing student activity in the course 'Creative Thinking' became focused on student learning and product outcome. There are two assessable items in the course, a group seminar presentation and a 'creative product', which may or may not be the outcome of group

work. A written rationale, which provides the conceptual framework, with an annotated bibliography, is required for both items. For the seminar presentation, risk is a prominent assessment criterion. The inclusion of this criterion impels students to push themselves beyond their comfort zones by pursuing a course of action where the outcome is not predictable. Assessment for the seminar presentation criteria include:

1. Level of risk evidenced in presentation
2. Demonstrated creativity/innovation
3. Written Rationale (minimum 500 words) plus annotated bibliography
4. Structure of seminar
5. Audience participation

The 'creative product' may be two- or three-dimensional, or it may be a process. This assignment may be undertaken individually or in small groups. The criteria for assessment are broad because they attempt to cover a wide range of outputs. Students have the option of submitting their own assessment criteria [in advance of their submission] which must include as least two items plus a written rationale. This allows for individuals to better express the conceptual basis of their work. Applying Best's criteria, proposals describing what may have been are insufficient in themselves: The 'product' has to clearly express its conceptual underpinnings for these to be assessed against an actual outcome. Assessment criteria for the creative product include:

1. Demonstrated creativity/innovation
2. Practicality (can it work?)
3. Overall visual impact (Gestalt qualities)
4. Written Rationale & Research (1,000 words minimum)

plus annotated bibliography if appropriate.

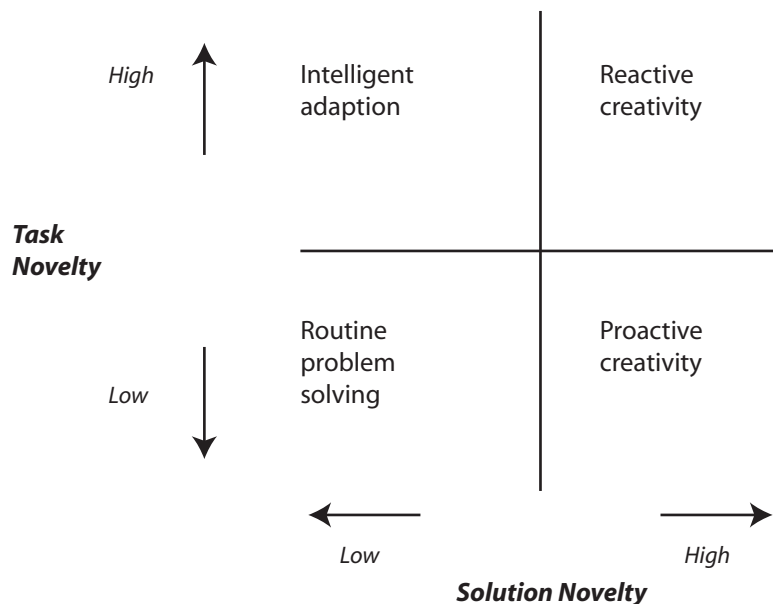
The ongoing difficulty has been the explanation of what exactly constitutes 'creativity' in this list of criteria and quite how it may be assessed in ways that are more objective than subjective. Fortunately, ways of identifying levels of creativity, that also provide a framework for assessment, have been developed over recent years. Two methods that may be applied to art and design education are those of Kaufmann [2004] and Cowdroy and Williams [2006].



## Towards Objective Assessment of Creativity

Kaufmann's 'Novelty-Creativity Taxonomy' offers a means of distinguishing between different kinds of creativity and intelligent behaviour. By comparing the task [novelty of stimulus] against the response [response novelty] this taxonomy provides a hierarchy of levels of creativity where each response may be judged against the level of response to the stimulus: Familiar Task + Familiar Solution; Novel Task + Familiar Solution; Familiar Task + Novel Solution; Novel Task + Novel Solution. In the last of these the problem is addressed at the conceptual and theoretical level<sup>16</sup> and is regarded as providing the most creative solution. Thus the degree of intellectual input appears to be the defining factor. Kaufmann illustrated his taxonomy diagrammatically, as shown in Figure 1.

Figure 1. The Novelty-Creativity Taxonomy [after Kaufmann, 2004]



The categorization of task in relation to the degree of intellectual input is reflected in the work of Cowdroy and Williams [2006] who have also developed a scale that may be considered objective. With regard to assessing creativity in the visual arts, Cowdroy and Williams produced a hierarchy of levels of creativity and creative ability comprising three levels. To summarize the attributes of this scale, the highest level is Conceptualization, which is exclusively intellectual, the intermediate level Schematization, combining both intellectual and iterative abilities, and the lowest

level Actualization, involves procedural thinking, iterative and crafting abilities for the production of the work<sup>17</sup>. Each one of the three levels is linked to a predominant form of memory which is respectively, emotional, declarative and procedural. Since significant creative ability therefore includes at least schematization and actualization thinking abilities, they concluded that a work of ‘artistic merit’ must have involved all three abilities in its production.<sup>18</sup>

These two scales each appear to provide the foundation for assessing a wide range of creative outcomes. While the authors may have approached the topic from somewhat different directions, it is noticeable that these two scales share common features. This convergence is encouraging since it implies broad agreement over what constitutes objective assessment. Without meaning to devalue the underlying philosophical bases, it is possible to illuminate the correspondence between the them by overlaying the two scales. Then, Routine Problem Solving may be compared with Actualization, Intelligent Adaption with Actualization/Schematization, Proactive Creativity with Schematization, and Reactive Creativity with Conceptualization. A tentative overlay of the two scales is offered in Figures 2a and 2b.

Figure 2a. A tentative overlay of Kaufmann’s Novelty-Creativity Taxonomy with Cowdroy & William’s Generic Creative Ability Criteria.

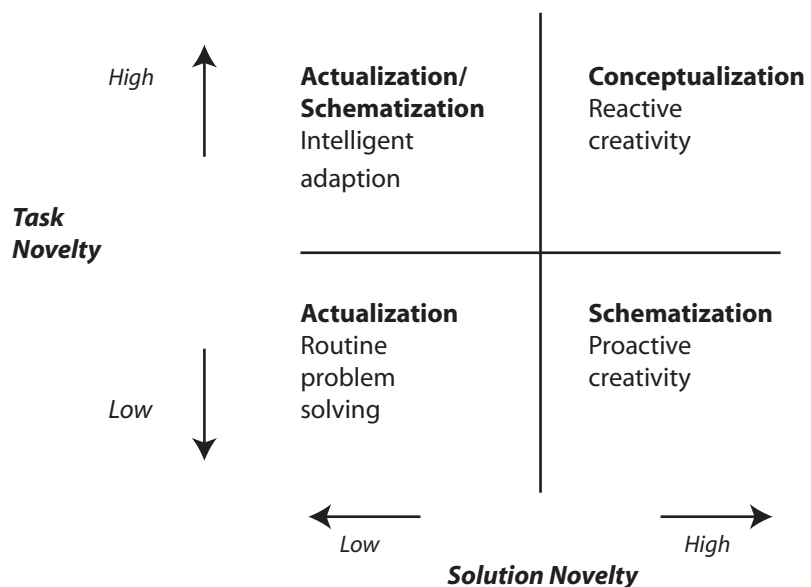
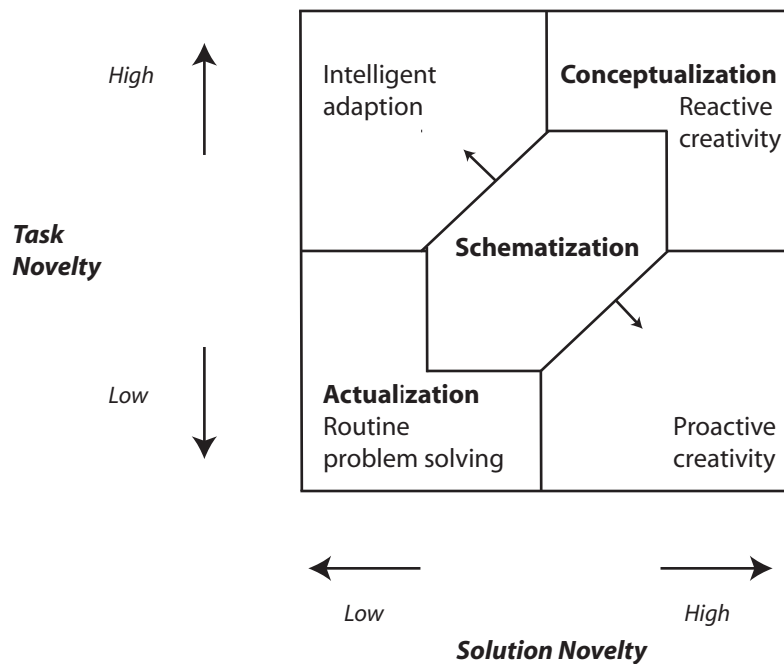


Figure 2b. A tentative overlay of Kaufmann's Novelty-Creativity Taxonomy with Cowdroy & William's Generic Creative Ability Criteria.



## Conclusion

Teaching a course in creativity that is based on experiential learning requires a selected team that understands the content and how to deliver this effectively. Careful selection of staff, along with an appropriate induction procedure, is necessary for a successful teaching outcome. Team teaching is probably the best way to achieve positive results. An objective assessment is possible only when levels of creativity are defined and are compared with a generally agreed upon scale. Objective means of assessment will greatly assist teams of teachers who are dealing with numerous separate classes, especially when a variety of disciplines may be involved. The work of Kaufmann and of Cowdroy and Williams provide significant advances in achieving these goals. Importantly, their work provides the foundations for the objective assessment of creative outcomes.

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<sup>2</sup> Rogers, C. R. 1967. *On Becoming a Person. A therapist's view of psychotherapy* London: Constable.

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- <sup>4</sup> El-Murad, J. and D.C. West. 2004. Definition and Measurement of Creativity: What Do We Know? *Journal of Advertising Research* June: 188-201p.197.
- <sup>5</sup> Jones, J.C. 1991. *Designing Designing* London: Architecture Design & Technology Press.
- <sup>6</sup> Johnstone, K. 1979. *IMPRO: Improvisation and the Theatre*. New York: Theatre Arts Books.
- <sup>7</sup> Cowdroy, R., and E. de Graaf. 2005. Assessing highly-creative ability, *Assessment & Evaluation in Higher Education*, Vol.30, No.5, October 2005: pp.507-518. p. 511.
- <sup>8</sup> Cowdroy & de Graaff 2005, 515.
- <sup>9</sup> Cropley, A.J. 2000. Defining and Measuring Creativity: Are Creativity Tests Worth Using? *Roeper Review* December. Vol. 23, No.2: 72-79. Feldhusen, J.F. and B.E. Goh. 1995. Assessing and Accessing Creativity: An Integrative Review of Theory, Research, Development. *Creativity Research Journal* Vol.8, No.3: 231-247. Treffinger, D.J., G.C. Young, E.C. Selby, and C. Shepardson. 2002. *Assessing Creativity: A Guide for Educators*. Research Monograph. USA: The National Center on the Gifted and Talented, University of Connecticut, Storrs, CT.
- <sup>10</sup> Treffinger et al. 2002, 16.
- <sup>11</sup> Feldhusen & Goh 1995, 240.
- <sup>12</sup> Best, D. 1982. Can Creativity Be Taught? *British Journal of Educational Studies*, Vol.XXX, No.3 October: 280-294. P. 293.
- <sup>13</sup> Amabile, T. M. 1996. *Creativity in Context*. Boulder, Colorado: Westview Press. P.33.
- <sup>14</sup> Amabile, 33.
- <sup>15</sup> Amabile, 34.
- <sup>16</sup> Kaufmann, G. 2004. Two Kinds of Creativity—But Which Ones? *Creativity and Innovation Management* Vol.13, No.3, September, p.161
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- <sup>18</sup> Cowdroy, R., and A. Williams,106