

Research Article

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Promoting Creativity in Education and the Role of Measurement

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Abstract

This paper outlines some of the factors involved in promoting creativity in education. Of particular interest is how teachers' attitudes and their perceptions of creativity are linked to their preferred ways of teaching and assessment. The role of measurement generally in enhancing creativity is briefly explored. Finally, it is argued that insufficient is known about cross-cultural differences in creative education and that a world-wide study would be desirable.

Introduction

Creativity is the capacity to confront a given problem in an original way. It is the capacity to look at a situation or problem from a different perspective or even from a variety of perspectives that are not derived directly from the problems definition"¹

According to Guilford (1950) creative abilities together constitute creative thinking which is characterized by "originality", "flexibility" "fluency", and "elaboration". Guilford maintained that these abilities are somewhat general and can be applied to a variety of tasks. Torrance defines creative thinking as the process, of "sensing gaps or disturbing or missing elements forming ideas or hypotheses concerning them testing these hypotheses and communicating the results possible modifying and retesting the hypothesis"²

Factors involved in promoting creativity in education

The capacity to be creative is an intensely human capacity. In this section the focus is on how students can be enabled to function as more creative individuals. Firstly it is important to make it clear that creativity is valued³. As a result of his research investigations across a variety of cultures concluded that creativity tends to flourish where it is valued. Similarly, I found that those teachers who were most keen to promote students' creativity also stressed the value of a whole school commitment to creative education. They particularly valued their head teacher's commitment⁴.

Inter-group differences in perspectives on creativity

Secondly, it cannot be assumed that everyone involved in promoting creativity in education sees creativity in the same way. For example, as a group, the female teachers were more inclined to see creativity in very personal terms — for example, as self-expression ($p < .01$) imagination ($p < 0.01$) and awareness of beauty ($p < 0.001$). The male teachers saw creativity more impersonally and they described it in terms of innovation ($p < .05$) and convergence ($p < 0.05$).

When assessing the creativity of students' work, the female teachers were more likely than the men to look for evidence of depth of feeling ($p < 0.001$), depth of thought ($p < 0.05$), originality ($p < 0.05$) and the extent to which students' work reflected the students' experience ($p < 0.01$). The male teachers preferred to evaluate students' work per se rather than attempting to assess whether or not it reflected their experience. They also valued the criterion 'elegance' more than the female teachers did ($p < 0.0001$).

Understanding what is involved in being creative

In order to promote creativity, it is also necessary to be aware of what enables people to be creative. Key factors include:

- motivation — this may be manifest as intense curiosity and persistence, or willingness to work hard

at resolving something which is unclear and when seeking a creative solution;

- a repertoire of heuristic/creative problem-solving strategies and the capacity to apply these appropriately;
- the capacity to imagine, especially the ability to envisage alternative scenarios/courses of action, and to select the most promising;
- access to, and familiarity with, the relevant body of knowledge;
- information-finding skills;
- other transferable skills, such as communication and ICT skills;
- domain - specific skills.

Teachers' ability to stimulate creativity

Teachers have a key role to play in enhancing creativity. Teaching for creativity can happen in the course of normal education. It doesn't necessarily need special time set aside (Fryer, 2003). The more teachers understand about creativity and its relationship to learning and motivation, the better equipped they are to enhance their students' creativity. So teacher training in creative education is crucial. Teachers can:

- stimulate students' motivation — in the tasks they set, when giving feedback on their performance, in their interactions with their students, and in the way in which they construct the learning environment;
- allow students to work alone for at least some of the time — so that they can get deeply absorbed in tasks they find motivating;
- enable students to evaluate solutions and, where appropriate, implement them;
- develop students' knowledge and skills;
- demonstrate that they value creativity;
- encourage questions and respect unusual questions

The role of measurement in enhancing creativity

In order to ascertain whether or not creativity has been successfully promoted in education, it has to be measured. But it is impractical to measure 'creativity'. Clearly, it is necessary to break down this task in ways which enable key research questions to be addressed, as we did in Science Alliance, a project designed to enhance elementary school children's creativity, interest in science and motivation to learn⁵

As far as assessment was concerned this included:

- feedback from teachers
- feedback from pupils
- the work the pupils produced
- teacher ratings of pupils' creativity
- a measure of self-esteem
- Objective creative thinking measures for pupils (before and after the project activity).

The objective measures included a teachers' checklist — a five point scale on which they were asked to rate each pupil's creativity; two 10-minute creative thinking measures for pupils (one verbal and one figural). The creativity measures were designed to assess idea generation in terms of quality, originality and the number of categories of ideas. They were administered in a non-threatening atmosphere (at the beginning and end of the project) and were introduced as 'activities' rather than tests. Although they were effective in distinguishing between schools' performance, we intend to refine them further before making them more widely available. In other words our findings on the objective tests need to be cautiously interpreted. Employing them in Science Alliance enabled us to collect some of the early data needed in working towards this refinement as well as offering a degree of objectivity to the evaluation of this project. Indeed, an important reason for including objective measures in any assessment procedure is that they do provide a check on more subjective means of assessment⁶.

Good Research Practice

In keeping with good psychological practice, it is important to employ a variety of measures, since all research measures have their strengths and weaknesses⁷. There are many kinds of data collection methods and data sources available including objective tests, structured or unstructured observations, self-reports, teachers' reports, students' ideas, questions or work. But it is not necessary to employ them all — otherwise there is a danger that the process of assessment could destroy the very phenomenon which is being assessed.

In other words, data collection needs to be carefully planned and sensitively carried out, with the minimum of impact. Measures need to be carefully chosen (or developed) to ensure that they are appropriate for the population being assessed and that they meet acceptable levels of validity and reliability. Ethical considerations also need to be taken into account. Additionally, in keeping with good practice, it is important to be willing to reassess regularly and to revise one's views. Careful data analysis using appropriate techniques is essential, as is the careful interpretation of findings⁸.

Conclusion

In this paper, a number of factors implicated in the development of students' creativity have been briefly reviewed. It has been argued that measurement does, indeed, have a role to play in enhancing creativity and that the investigative process is just the same as when researching equally fuzzy concepts — such as 'work' or 'play', for example. However, the quality of research is enhanced when investigators are conversant with the vast body of knowledge on creativity and creative education.

References

- ¹ Bolingbroke, C. and Fryer, M., (2009). Enabling culturally and linguistically diverse students to realize their potential – a British perspective, *Journal of Urban Education: Focus on Enrichment*, p48.

- ²Rogers, C. R. (1954). Towards a theory of creativity. In P. E. Vernon, (Ed.), (1970) *Creativity*. Harmondsworth: Penguin, p142
- ³Torrance, E. P. and Myers, R. E. (1970). *Creative Learning and Teaching*. New York: Harper & Row,p72
- ⁴Torrance, E. P. (1969). *Rewarding Creative Behavior*. Englewood Cliffs, NJ: Prentice-Hall,p67
- ⁵Fryer, M. (2006). Making a difference; a tribute to E. Paul Torrance from the United Kingdom, *Creativity Research Journal*, 121
- ⁶Fryer, M. (Ed.). (2004). *Creativity and Cultural Diversity*. Leeds, England: The Creativity Centre Educational Trust Press, p34
- ⁷ Fryer, M. (1996). *Creative Teaching and Learning*. London: Paul Chapman Publishing,p89
- ⁸ Fryer, M. (2003). *Creativity across the curriculum: A review and analysis of programme signed to develop creativity*. London, UK: Qualifications & Curriculum Authority,P45

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