**Research**

**Comparing Creativity Assessments in Higher Education**

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**Introduction/Need for Research**

Priority Area 4 of the National Research Agenda (Doerfert, 2011) advocates the significance of meaningful and engaged learning in all environments to develop tactics that shape a society of diverse, highly educated professionals who will take on major societal problems and develop innovations that will spur economic growth. The cultivation of creativity is critical for the pursuit of knowledge, and having the means to assess creativity can help instructors to teach more effectively, help students develop into more effective learners and, in turn, successful people within the workforce and in life (Jackson, 2006).

Much of the research that exists in the realm of creativity in education makes the assumption that most students, at some level, are capable of creative work; that it can positively contribute to the lives of individuals as well as society; and that its encouragement among academics and students is essential to universities’ missions (Edwards, McGoldrick, & Oliver, 2006). Moreover, educational psychologists are discovering and exploring the role that creativity plays in student development and taking note of its importance in classroom learning (Sawyer, 2012; Jackson, 2006). Of all the cognitive abilities, the concept of creativity it is arguably the most difficult to assess due to its complex and subjective nature. In industry and elsewhere, people demand innovation and are confused with the task of measuring it. Having a better grasp and knowledge of this subject will give faculty the means to assess and conceptualize creativity and creative work.

**Theoretical Framework**

This study was guided by the social constructivist theory (Sawyer, 2012). Knowledge is context dependent, ever changing, and can be built upon. Sawyer (2012) advocated the constructivist viewpoint stating that learning is always a creative process and may lead to better retention, understanding, and active use of knowledge. Since instructors are both facilitators and learners in this process, they determine appropriate responses to challenges students face, and, in turn, which creative assessments to utilize.

**Purpose and Research Objectives**

Several attempts at assessing creativity in higher education have been developed over the years. The purpose of this study was to examine literature for student creativity assessments utilized in higher education and compare their assessment measures. The primary research objective was to compare and contrast selected creativity assessments used within higher education.

**Methodology**

In order to accomplish the research objective, several data sources were used to collect literature for the investigation. Primary sources included peer-reviewed journal articles and book chapters in the realm of creativity. Sources were found using key words searches including the terms “create,” “creativity,” “creative thinking,” “divergent,” “divergent thinking,” and “originality.” Frameworks containing assessment measures for creativity were then evaluated to determine how the assessment was used, how it measured creativity, and how it was applied to higher education. Four creativity assessments are compared below and were chosen based on their relevancy in the field of creativity and higher education.

**Results/Findings**

The **Torrance Test of Creative Thinking** (1988) devised five measures, both written and verbal, of a person’s creative production focusing exclusively on creative output. Perhaps the oldest of measures, this assessment has been utilized in children and adults spanning across various disciplines. The model uses three picture-based exercises to assess the following measures: fluency, or the number of responses; originality, or the novelty of responses; elaboration, or the detail of responses; resistance to premature closure; and abstractness of title. Torrance’s approach is not comprehensive in measuring creativity, but rather evaluates the creative individual.

The **Taxonomy of Creative Design** (Nilsson, 2012) offers a holistic vision of how creative work can be understood or developed incrementally. Although relatively new, this method has been successfully utilized specifically within group settings in higher education to assess origin and influences of a work. The model views creative work as a final product, and it categorizes that work as an imitation of another product, a variation of a single product, a combination of two or more products, a transformation of a product into a new form, or an original creation. In this method, one can assess the degree to which a work is creative and where it fits on the model (Nilsson, 2012).

In the **Requirements Model (**Unsworth, Wall, & Carter, 2005), creativity is measured based on standards or requirements established before the work is made. This model has primarily been utilized within industry settings, but could easily be transferrable to assignments in higher education. It seeks to measure relevance, value, and effectiveness against concise guidelines and makes the assumption that creative work is often visually pleasing. However, most visual responses derive from distinct pieces of information that can be measured. In sum, if there are straightforward requirements for creative work, it can be straightforwardly assessed.

The **Systems Model** (Csikszentmihalyi, 1999) suggested the social value of a creative lies in the intersection between three entities: the person, or the individual work; the domain, or the area of knowledge; and the field, or the experts of the domain. Developed in the field of psychology, this widely known model has been utilized across various disciplines and found success within higher education (Jackson, 2006). The Systems Model measures creativity based on the social and community response to the work. It is in this creative intersection where the process of creativity happens—the person creates the work, the field accepts the work, and, as a result, the domain is changed.

Each model is distinctive in its own right, and it is the responsibility of the educator to determine which assessment method best aligns with desired outcomes. In regard to Torrance’s approach, the model seeks to measure creativity in a concise, quantifiable method. Yet, it tells nothing of the relevance or value of the creative work. Likewise, the System’s Model measures the relevance or value in a social context, but is highly subjective as society is always changing. The Taxonomy of Creative Design and Requirements model both thrive when comparing work against itself and not to others, but the Taxonomy Model differs in assessing novelty and influences of work.

**Conclusions/Implications/Recommendations**

These four models offer various ways to assess creativity or creative work. However, one can question if creativity can be confined to one agenda or model, as well as the extent to which a creative method is transferable. One can look at influence, output, requirements, or the social domain—evaluating which model to use depends on the situation as each model is met with its own strengths and weaknesses. Instructors and facilitators should look at the desired outcome to determine which assessment fits best with their program. Future research is needed to understand the nature of creativity so that an all-inclusive measure could be developed. Additionally, future research should seek to overview and update measures and assessments in place due to creativity’s subjective nature so that researchers can stay relevant within the field.

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