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The Relationship Between Creativity And Academic Achievement

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Abstract

This study investigated relationship between students' creativity and academic achievement. The sample size of 72 subjects was conducted to collect data from the student questionnaire and Torrens creativity were used. Field of information gleaned from questionnaires and were analyzed by using both descriptive and inferential statistics. These results are captured components of creativity and achievement, and there were positive significant relationships.

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1. Introduction

Naderi et al. (2010): Numerous recent research has been conducted on the subject of creativity (Charlton, 2009; Heinze, Shapira, Rogers, & Senker, 2009; Ivcevic, 2009; Miller, 2007; Runco, 2007a, 2007b; Simonton & James, 2007; Yusuf, 2009) in relation to academic achievement (Deary et al., 2007; Lau & Roeser, 2008; Nofle & Robins, 2007; Steinmayr & Spinath, 2009), creativity and academic achievement (Ai, 1999; Coyle & Pillow, 2008; Palaniappan, 2005; Palaniappan, 2007a; Steinmayr & Spinath, 2009) academic achievement and gender (Barkatsas, Kasimatis, & Gialamas, 2009; Hosenfeld, Köller, & Baumert, 1999; Penner & Paret, 2008) as well as creativity and gender (Ai, 1999; Habibollah. et al., 2008; Naderi et al., 2008; Palaniappan, 2000, 2007b). The relationship between creativity and academic achievement has been examined by a number of investigators. According to one study, creativity is hardly correlated with academic achievement (Ai, 1999). Ai (1999) noted that "the zeal to investigate the relationship between creativity and academic achievement dates back to the 1960s, when Getzels (1962) first reported the results of their research on the role of creativity in school achievement". Their investigation had an important effect on psychology in the field of education and set off a flood of investigations to understand what the nature of creativity was like. Their study involved 449 high school students, on whom they examined in

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order to find similarities and differences in the groups of students who had scored well on intelligence assessments and students who had scored well on creativity tests (Guilford of scores Naderi et al., 2010).

Creativity means literally, "create", "creation" or "creative force" and "power to create new works" (Naderi et al., 2010).

Creativity

Creativity means literally, "create", "creation" or "creative force" and "power to create new works". (Anwar, H., 1381: 286). Creativity is the ability to make or bring to existence something new, whether a new solution to a problem, a new method or device or a new artistic object or form. Penick (1992) described creativity as a process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements and disharmonies as well as identifying, searching for solutions, making guesses or formulation of hypotheses, and possibly modifying and restating them, and experimenting to find results and finally communicating the results. Nwazuoke, Olatoye and Oyundoyin (2002) argued that environment where a child finds himself/herself could foster or inhibit creativity. Though a child may have the innate or genetic ability for creativity, yet parents and teachers have roles to play to enhance and foster the creative traits. Dingledine (2003) asserted that family support, availability of learning materials and social pressures are some of the factors that influence the development of creativity. From these findings, it is clear that if teaching, assessment and social environment do not support creative thinking, the innate tendency in learners to be creative may be subdued. Creativity is fundamental to self-reliance although much research has been done in the field of creativity, but education experts and scholars on a common definition of creativity in science and technology have not lost.

Santrak (2004) believes Creativity an ability to think about things in new ways to achieve unusual and unique solutions in problems (Saif, 2008). Guilford (1950) Father of creativity research stated that what makes creativity is people effort to solve problems (Fazeli, 2008). Torrance (1998), assumes that four elements of creativity as a fluid structure, flexibility, originality and skills to incorporate. He has a fluid definition, the total number of ideas and related, and interpreting meaningful responses. High grade of fluid, representing total number of ideas associated with a particular stimulus. While flexible are directed with the number of different classes, different responses. A person who obtains a high grade of flexibility in dealing a problem, due to the different angles and offers a variety of classes. The originality is always statistically abnormal responses to stress responses are rare, representing exploration, constructive and original thinking, People that obtains in originality, it always obtains a high score stem from the creation of solutions and offering ways are not only fits successfully created, but the solution, the less people come to mind.

Ai (1999) especially studied the relation between creativity and academic achievement. In this study, the students were randomly selected from 68 schools (2,264 students, 38% were boys and 62% were girls). Three creativity batteries, the Torrance Test of Creative Thinking (TTCT), the Abedi-Schumacher Creativity Test (CT), and the Villa and Auzmendi Creativity Test (VAT), were administered to the students. The academic achievement of the students' was assessed using a self-reported achievement in four subject areas English, natural science, mathematics and social science. A canonical correlation analysis found that when operationalized by their grades, creativity was related to academic achievement for both boys and girls. For girls, related to two of the academic subject areas (social science and English) and *fluency* related to natural science and mathematics.

Research Objectives:

The general goal: understanding the relationship between creativity and academic achievement of students.

Partial objectives:

1. Determining relationship between Fluid component (creativity) and academic achievement of students.

2. Determining relationship between extended component (creativity) and academic achievement of students.
3. Determining relationship between Innovative component (creativity) and academic achievement of students.
4. Determining relationship between flexibility component (creativity) and academic achievement of students.

2. Methodology

2.1. Research design

The study method was correlation.

2.1.1. participants

To determine J.C Morgan's table is used, the sample size was 242, number of clusters based on random sampling was carried out.

2.1.1.1. Instruments

Research Tools: Questionnaire of creativity and academic achievement of the students' average scores were used.

The reliability of the measurement device

Cronbach's Alpha test was used to determine reliability. In the pilot study on 30 patients' population surveys, the reliability of the test method alpha 0.95 is obtained.

The data were analyzed by using statistical software (SPSS) frequency, mean, and so the inference was provided for hypothesis testing of correlation coefficient was used to examine relationships between variables.

3. Results

Table1. Correlation between Creativity and achievement

	r	sig(2Tailed)**
1. Fluid component of creativity	0.679	0.00
2. Extent creativity component	0.445	0.00
3. Innovative component	0.879	0.00
4. Flexibility component	0.839	0.00
5. Creativity	0.769	0.00

P<0.01

As seen correlation between main component and sub components there are high correlation between them.

4. Discussion

These results have been approved: There are positive significant between extended components, flexibility components, components of initiative as creativity and academic achievement of students.

To conclude, this study provides empirical support for the relationship between aspects of creativity and academic achievement. Further research is needed to verify the nature of this relationship using other measures of creativity

and academic achievement, and across other nations and different programs of study, in order to establish if similar findings hold in other settings and contexts.

Confirming main hypothesis, there is a correlation between these two variables. Thus, we can conclude with 99 percent confidence that there is positive significant between creativity and academic achievement and higher levels of creativity for students increase their academic achievement.

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