

The Relationship Among Creativity Thinking Ability, Creative Personality and Creative Product

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Abstract. The purpose of this study is to investigate the relationship among creative thinking ability, creative personality and creative product. For the above purpose, the following research questions were considered in this study: are there any significant relations in the children's creative thinking ability, creative personality and creative product? In this study there were 117 children subjects from fourth of the elementary school. Data gathered were analyzed for the verification of the hypothesis of this subject for using SPSS 18.0 program. The results of this study were as follows: creative thinking ability had significant relationship with and creative personality, however there is no correlation between creative thinking ability and creative personality with creative product.

Keywords: elementary school student, creative thinking ability, creative personality, creative product .

1 Introduction

In this study, tests on creative thinking ability, creative personality, and creative product are conducted to examine the relevance between these three factors. This study is going to look into how these sub factors affect academic achievement. The attempt to include creative product in creativity measurement will perhaps be helpful for understanding creativity of children.

There are scholars who emphasize creative thinking ability in defining creativity. Guilford (1967) considered creativity as an intellectual ability and a thinking process that needs divergent thinking. He suggested sensitivity to problem, fluent of thinking, originality, elaboration and redefinition as components of creativity. Torrance (1974) defined that 'creative thinking ability is the aggregation of generalized spiritual ability deemed to be working when making a creative achievement. He suggested fluent of thinking, flexibility, originality and elaboration as the sub factors of creative thinking ability. Torrance (1980; Torrance & Safter, 1990), based on this theory, developed a creativity test tool. Later a need for multi-factorial approach to creativity research was raised, insisting on its relevance with other variables. As intelligence or knowledge has no or very little relevance to creativity, it seems that other variables than cognitive ability affects creativity.

There are scholars who emphasize creative personality in defining creativity. In research on personality of creative people, Amabile(1983), Barron and Harrington (1981) studied personality traits of creative people in many fields, based on the observation that creative people have personalities that are distinct from uncreative people.

Creative product is an ability to directly perform a given task in one or more areas, and a behavioral aspect to judge whether someone is creative based on the actual result. These creative products are measured by CAT (Consensual Assessment Technique) designed by Amabile (1983), and very few research designs about its relevance with academic achievement of students.

2 Method

2.1 Participants

The present study focused on 4th grade students to investigate the relationship between creative thinking ability and creative personality. In total, 130 subjects were sampled from 5 elementary schools in Seoul. The present children's socio-economic background was middle-class. Excepting missing data, 117(boy: 56 girl: 61) students were statistically analyzed.

2.2 Instruments

1) Torrance Test of Creative Thinking (Figure, A.B)

Torrance Test of Creativity Thinking (TTCT) by Torrance (1974) was used for test of divergent thinking level. Validity of TTCT was reported by Torrance & Wu (1981). ($r=.22 \sim .76$). Reliability of present study was fluency .77 (.73), originality .70 (.64), abstractness .76 (.72), and elaboration .74 (.67).

2) **Creative Personality Scale** for school students developed by Hah (2001) was used to measure creative personality. This testing tool from elementary students to adults consists of five sub factors: Curiosity, self-efficacy, imagination, perseverance, humor. There are 6 questions for each factor, totalizing 30 questions. Each factor is assessed by 5-point rating scale. Testing reliability is .68 ~.80.

3) Creative Product

Story telling from the picture, which is one of the several tasks to measure creative performance by suggesting a heuristic task in everyday life, was performed. The subjects were asked to write an essay based on the pictures selected by discussing with the children's book writer and elementary school teacher from 'JOHN PATRICK NORMAN McHENNESSY- THE BOY WHO WAS ALWAYS LATE' (Jhon Mackintosh Burningham, 2009) in 30 minutes. Essay products assessments are performed by children's book writer with a master's degree in literature, 8 years of experience of Korean language teacher, and 18 years of experience of elementary school teacher. Reliability among graders was .82. Baer (1998) argued that evaluation result of experts shows high reliability and validity.

2.3 Procedure and Data Analysis

Each homeroom teacher was offered a simple workshop. TTCT and creative product was examined according to the time limit and test method, while creative personality test was performed freely and collected. The academic achievement was based on the report data at the end of the first semester from the homeroom teachers. The relations among children's creative thinking ability, creative personality and creative product were analyzed according to total scores and sub factor scores. The scores were analyzed Descriptive Statistics and Pearson's Correlation Coefficient Analysis using SPSS WIN 18.0 statistical package.

3 Results

3.1 Descriptive Statistics

Table 1 reports the mean, standard deviation and correlations among the sub-factors of creative thinking ability, creative personality and creative products and academic achievement.

3.1.1 Relations between Creative Thinking Ability, Creative Personality and Creative Product

There are some relationship among sub factors of creative thinking ability (fluency, originality, abstractness, and elaboration), creative personality (curiosity, self-efficacy, imagination, perseverance, and humor) and creative product(aesthetic appeal and unique work).

Our results shows that there is no correlation among creative thinking ability, creative personality, and creative product. It differs from the published research by Hah (2001) who suggested there is correlation among them. However, Hah's study had the myriad of sampling, about 1800 research subjects, and relatively low correlation coefficient, $r=.18$, which explains the difference from this study.

Also, the result showing there is no correlation between creative thinking ability and creative personality with creative product, perhaps suggests that creative product is another factor that can measure creativity.

4 Conclusion

Creativity is defined as the integrated ability of human intelligence to produce new, original, and valuable product to solve a problem and in order to measure creativity, evaluation of the product can be considered very important part.

Measuring human creativity is an issue that will continue to be discussed in the future. This study focused on understanding the independent roles of three methods of creativity measurement, including creative product test in addition to creative thinking ability and creative personality test. After measuring creative thinking ability, creative personality, and creative product of 117 elementary school students and examining correlation between the results, the following conclusions were made:

First, creative thinking ability, creative personality, and creative product measure students' creativity and the variables had almost no correlation with one another. Each three methods to measures creativity have a limited degree for some different part(Lew, 2010).

Second, in school environment, all students can be creative and it is the critical point to find out how to discover their creativity. Although the creative performance of students may not be deemed creative at the moment, it is necessary to seriously contemplate education for students who have creative potential.

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