

THE EFFECTS OF CREATIVE TEACHING METHOD ON MOTIVATION AND ACADEMIC ACHIEVEMENT OF ELEMENTARY SCHOOL STUDENTS IN ACADEMIC YEAR 2014-2015

Javad Soleymanpour

*Department of Curriculum Planning, Islamic Azad University, Tonekabon Branch, Tonekabon, Iran
(Corresponding Author)*

Abstract

General purpose of the study is to examine the effects of creative teaching method on motivation and academic achievement of elementary school students in academic year 2014-2015. Research method is quasi-experimental by implementing pre-test and post-test with groups of experimental and control. Statistical population include all of students in elementary school that the number of them are 1184 students and are selected by cluster random sampling in school. Numbers of 50 students (25 students in control group and 25 students in experimental group) are statistical sample of this research. Methods of data analysis have been descriptive statistics and independent t-test. Total results of the research have shown that teaching based on creative model in elementary school classrooms with regard to features of genuineness and fluency and flexibility in educational situations affect academic achievement and motivation in experimental group. There is significant difference between experimental group and control group to the effect of creative teaching method and this difference in favor of group that is used creative teaching method in the classroom.

Keywords: Model of Creativity, Motivation, Academic Achievement, Elementary School.

1. Introduction

Communities need to the intellectual forces to grow. In fact intellectual human resources are foundation for the advancement of society. Until several years ago attitude of teachers to training focused on to provide information and teaching skills to learners and hence the use of methods that were called exercise and repetition seemed very helpful. Along with formal training were common relationships of teacher with student in many businesses and student were suffered great suffering to dominate work and to achieve a professor degree (Amabile, 1987).

Creativity is regarded as one of the higher mental abilities. This issue has been interest to philosophers, scientists of experimental sciences and scientists of theoretical sciences and human. To expand the scope of review of creativity and clarification of talent in creativity, psychologists especially psychologists of education field have suffered great efforts. However what is offered in the areas of creativity is the most includes fostering creative techniques. It is tried that creative ways be opened by the teacher and student. The teacher should taught using teaching methods currently in such a way that with creative indexes can called creatively it. Students must also take advantage of creative solutions in learning (Paul, 2005).

Creative teaching is opportunity to students' activities and this gives an incentive for progress in affairs. According to Hoffman view (2006), motivation is defined as the set of factors that cause

people to move towards the target and activity, conducts it and is cause of it persistent. So creativity can be a factor to the development of targeting individuals (Kar, 2006).

Helporn believes that creativity can be described as the ability to form new combinations of ideas to meet its requirements (Ahghar, 2001). Perkins knows also an important feature of creative thinking to be lead the conclusion that is applied to problem solving. In fact, this yields that will judge about being creative of thought. So far, scientists have proposed several ways to foster creative thinking. For example synectics teaching method encourages learners to freely think about a topic or something and comments about it (Nodding, 2008).

Gilford (1959) as one of the pioneers of the investigating the phenomenon of creativity believes that there are two types of convergent thinking and divergent thinking. In his view, convergent thinking or logical thinking about a problem is looking for a simple solution. The person with convergent thinking state that each problem has a solution and it is to say, while divergent thinking and creative thinking deal with solutions of unusual and diverse. The person with divergent thinking is the dissident and welcome of transformation, change and innovation

Robert Gagné (1977) in hierarchy theory of learning, the eighth and highest type of learning is problem solving learning. He believes that creativity is a specific learning. Visberg (1988) has presented clear and simple definition of creativity: Creativity is ability to solve problems that person hasn't learned earlier (Soleymanpour, 2007: 79).

Present studies also show that creativity and the use of creative thinking form cornerstone of new moves in the future. Accordingly, the problem of using creative minds and personalities in various fields of scientific, technological and health is one of the most serious challenges and foreseeable of humanity in the future (Quoting from Stin 1974., Equal, 1991.,Jefri, 2001., Rey Hamer,Brolin ,1999.,Lech,2001).

The term of motivation is derived from the Latin verb meaning to move. The general concept of movement (motility) reflects this general impression that motivation is what prompted us to movement and helps us to complete our homework (Seyf, 2007).

Motivation refers to the internal mode of an organism that causes to direct his/her behavior toward a goal. In general, motivation can be described as driving force of human activities and factor directing them. Motivation is activate factor of human behavior (Seyf, 2007).

In prior decades, researchers have sought to find the cause of children need to progress in parenting practice and social learning opportunities. They hoped to justify social determinants of individual personality with need for more progress compared to low. When the research for this continued, it is clear that the need for progress is a multifaceted phenomenon and does not contain a single attribute, but involves a set of social processes, cognitive and developmental (Atkinson, 1964 quoting from Soleymanpour,2007).

In creative classroom teaching, brainstorming method provides more response in math problem solving process by creating a favorable emotional climate and free association (Soleymanpour, 2007: 185). Accordingly, a lot research confirms it. Foolad Chang (2005) was examined effects of metacognitive training on mathematics achievement. The results of this study indicate the need for the reform in terms of training metacognitive skills in the school curriculum and training in mathematics. Sahin & Akikgz (2011) in research with title "the effects of teaching strategies with an emphasis on creativity in achievement and motivation of progress and positive attitudes towards mathematics and physics" concluded that there is significant difference between groups with this method (experimental group) or without it

2. Research Hypotheses

1- Using creative teaching model affect motivation of academic achievement in elementary school students.

2- Using creative teaching model affect academic achievement in elementary school students.

3. Research Methodology

Research method is quasi-experimental by implementing pre-test and post-test with groups of experimental and control. Statistical population includes all of students in elementary school of Chalus (Iran) that are studying in years of 2014-2015. Numbers of them are 1184 students. For sampling is used cluster random sampling. In this way one school have selected among elementary schools in city of Chalus that consists of 51 schools and two classes with 25 students in this school is selected. Two measurement instruments are used in this study.

1- Academic achievement test: A test designed by the researcher that scoring criteria it is score 20.

2- Hermen Achievement Motivation questionnaires: Hermen Achievement Motivation questionnaires (1978) Validity of the instrument was confirmed and examined by specialist professors and supervisors and advisors. Instrument reliability of achievement motivation has achieved 0.89. To analyze data is used descriptive statistics and inferential statistics one-tailed using SPSS software.

4. Research Findings

Table 1. Evaluation and feasibility of statistical test using Kolmogorov-Smirnov method

variables	p-value	result
Academic achievement before training	0.26	normal
Academic achievement after training	0.37	normal
Motivation of academic achievement before training	0.24	normal
Motivation of academic achievement after training	0.38	normal

Considering that in all the research variables, p-value is higher than the significance level of 0.05. It concluded that research variables are normal. Therefore for research hypothesis is used parametric tests (independent t test).

1- Using creative teaching model affect motivation of academic achievement in elementary school students.

Table 2 t-test of the first hypothesis

Before training	groups	mean	SD	t	a	p-value
	experimental group	2.2	3.28	0.57	0.05	0.42
	Control group	2.16	3.67			
After training	experimental group	3.56	3.94	7.60	0.05	0.00
	Control group	2.39	3.69			

a) **Before training:** p-value is higher than $\alpha = 0.05$. Actually above test results reflect the fact that two groups of students were selected completely randomly and as was observed, there wasn't any significant difference between the mean of test scores before start training.

b) **After training:** p-value is lower than $\alpha = 0.05$. There is significant difference between mean of academic achievement motivation scores of students in both the control and experimental classes and in fact method of teaching based on creativity thinking affects motivation of academic achievement.

2- Using creative teaching model affect academic achievement in elementary school students.

Table 3. Second hypothesis test

	groups	mean	SD	t	α	p-value
Before training	experimental group	13.59	3.28	0.29	0.05	0.69
	Control group	13.26	3.67			
After training	experimental group	16.56	3.94	10.48	0.05	0.000
	Control group	13.69	3.69			

5. Conclusion

According to the results obtained from the first hypothesis, using creative teaching model affects academic achievement of students in mathematics. Results obtained show that creative teaching model affects academic achievement of elementary school and this result is consistent with research result of Hosseini (2007) and also with research result Solook, Sahin And Ekikegez (2011).

According to the results obtained from first hypothesis is recommended that schools for academic achievement of students use method based creative thinking because this method creates positive self-concept and being important in them in addition to their impact on academic achievement so that in some sessions, students suggested ways to solve problems that was presented first time means creating methods for better understanding of mathematic. Thus to improve accepted statistics and academic achievement of students is recommended to schools that they want from teachers to use more of these methods.

According to the results obtained from second hypothesis is recommended that held in-service courses for training creative thinking techniques to motivate progress in students. Because mathematics taught traditionally to students in today's classrooms and thus students does not have incentive to progress and think just to pass the course and go to a higher level. But in classes held with method based on creativity, students found intense interest in the lessons and has been among the popular classes of students.

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