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EFFECT OF ART EDUCATION MATHEMATICS ON LEARNING AND CHILDREN'S CREATIVITY FOURTH GRADE GACHSARAN CITY

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ABSTRACT

The purpose of this research Art education study mathematics on the fourth grade children are learning and creativity. In this study, 60 children 10-9 years Fourth grade (30 boys and 30 girls) In the academic year 2014-2015 In Ghachsaran schools Enrolled, Semi-experimental study And using the pre-test and post-test with control group was conducted. Torrance creativity and verified test data through tests of academic achievement on evaluation and learning was collected. After two months and 16 sessions were applied and at the end of the experimental and control groups were assessed the analysis was performed using SPSS software. In the final analysis it turned out Art teaching mathematics to children's creativity and learning effectively.

Keywords: art education, math, creativity, learning

INTRODUCTION:

One of the goals of mankind in the age of technology and technology capabilities and optimum use of all available resources to achieve the goals of its material and spiritual. Today, any change in the education and training of people and development of society, highly regarded and education scholars and practitioners are trying to provide background to the growth and prosperity of human resources, Why not imagine a world of magnificent and progressive ideals or people less creative,

constructive, and divergent with all human characteristics is impossible (Singer, 1990). Pre-school educational activities, each specifically to one part and, in general, with all the ability to act. One of the serious issues in the training, education, art, preschool activities accounted for a large part of the (Ayoubi, 2009). Artistic activities with the senses, imagination and emotion are closely students. Human senses, to the outside world that react to various events. Vision, hearing, smell, taste and touch senses to make up the five dimensions of human beings. If a person can not properly use each of these senses, the knowledge of their environment and get a variety of information, it will be successful (Radpour et al., 2006). In today's society well-being requires selectivity abilities, reasoning, decision-making and problem solving. Education is a great responsibility in creating such capabilities. From the perspective of planners, mathematics is one of the materials that teaching and learning is essential in order to carry out such a mission. Education is thinking and creativity minimum of mathematics education is concerned (Lowrie and whitland, 2000). Math and science branches of human knowledge, which in recent years has been the focus of scientific circles. Rapid advances in science and its impact on different aspects of human life, the need to become familiar with the basics of mathematics jobs for people who pay simplest is getting clearer. This knowledge as a human communication system helps precise understanding of information, patterns and arguments won (Abbasi Hossein Abadi, 2007). Mathematics has always been part of the curriculum for all courses at all educational systems of the world's most Ast.mtarf justification for the existence of mathematical and public education program that "teaches mathematics to human thinking" education power of thought and creativity, minimum It is considered that the mathematical education. This lesson should reflect the special role that education plays in students the abilities listed. This cannot be achieved unless the teaching of mathematics "growth problem-solving ability" for its own educational agenda (Lowrie and whitland, 2000). Among the methods of teaching mathematics, Artistic method as a new method is interesting. Explain the historical significance of art and its application in different cultures, the role of art in the life of faith and Islamic culture and examine it from the perspective of psychology and mathematics education after each turn, the widespread application, continuity and the role of art in human life and human community and the need to make good use of it reveals. Also check the

characteristics of mental, emotional and psychological needs of students with the characteristics and backgrounds in the works and artistic activities, represent interrelated phenomena of art students and students of all artistic phenomena characterized makes. Such communication suggests that art students special effects And is a significant contributor to their learning. Breeding role art can be created in order to facilitate learning and provide the necessary conditions for the creation of favorable changes in various aspects of the character and behavior of students Search. Art services, the role that science plays in education. Of legends, stories, plays and art films as well as a variety of designs and images stimulate curiosity and the desire to search students in understanding phenomena're casting and the environment is important. Fostering imagination and creating appropriate incentives through art, including the factors that paved the way for the inventions and discoveries (Sahrai, 1999). According to the belief of many dignitaries, scholars and educators earliest years of a child's life is best when children than ever for growth, learning and education more readily. So if the necessary facilities and areas for children to be provided, personality, learning and intelligence, he will expand considerably (Totkeleh, 2005). Because of the importance and necessity of education in pre-school and school age over the past is considered. The overall goal of the strengthened physical education and children's motor and between the two, In order to create an ability to learn is to create precision and skill in observation depth in a broad sense, the lead (Ayoubi, 2009). Somebody Sadeghi (2004) in a study entitled "The impact of the arts in fostering children's creativity readiness" in district 10 in Tehran has come to the conclusion that entertain children in artistic activities to increase children's readiness scores in the state "flexibility cute "," develop "," fluid "creativity test was effective. Mirza Aghai (2007) in a study entitled impact of arts education on children's creativity to the conclusion that in the field of art education enhances children's creativity is.

METHODOLOGY

This quasi-experimental study (pretest-posttest design with control group) was, and sample of this research 10-9-year-old children in fourth grade Gachsaran that 300 people were. Of this population, 60 were randomly selected.

Research Tools: Torrance creativity test and math test to measure student learning was self-made.

RESULTS

First hypothesis: Table 1. Art mathematics education has an impact on children's mathematical learning.

According to the results, after adjusting for intelligence and pre-test, a significant effect of the subjects ($p \leq 0.001$, df=1, F=23.25) Group There was. The average variable mathematical art training shows that people who have stiffness in the mathematical arts education than the average higher than the other group, this means that the mathematical art education, children's learning has increased.

Level of significance	F	Mean squares	Degree of freedom	Total squares	Resource change
NS	163/74	276/11	1	276/11	Pretest
0/001	23/35	39/37	1	39/37	Group
		1/69	57	96/12	Error
			60	12596	General

The result of this research, the research done in this field by Stokes (2002), Henry (1986), Soperen (2006), Jasmyna (2005; quoted Amin, 2005), Shabani (1371), Kazemi (1999) are consistent Is to interpret these findings, it can be assumed that, by observing and experiencing children better understand and learning takes place. In fact, this finding is consistent with previous studies in the field of learning and neuropsychology correspond art and art education based on the study conducted by Thompson (1996), Andreas (2005), Zaydel (2006) showed that, can strengthen and enhance visual perception and this is effective on learning. The right hemisphere of the brain becomes active in the process and faster processing is done.

The second hypothesis:

Table 2 - art teaching mathematics has an impact on children's creativity. According to the results, after adjusting for intelligence and pre-test, significant effect between subjects factor(f =69.52=, 1 = df=1,001/0 $p \leq 0.001$) Groups. The average variable mathematical artistic creativity shows that students who participated in training than the other group, the average higher. This means that mathematical art education, creativity in children has increased.

level of significance	F	Mean squares	Degree of freedom	Total squares	Resource change
NS	172/13	22405/57	1	22405/57	Pretest
0/001	69/52	9049/65	1	9049/65	Group
		130/16	57	7419/36	Error
			60	442690	General

The result of this research, the research done in this field by Henley (2002), ALysimo(2005), Jasmyna (2005 quoting Amini 2005)), Ian (2005), Andreas (2005),

Graham (2012) and Mir Sadeghi (2004) are in line. This finding can be explained so that the child is often in times of creativity and innovation to flourish and to freely express that freedom of thought and emotion finds opportunity, children can build their own imagination what to operate and be effective in the development of children's creativity.

CONCLUSIONS

The aim of this study was to evaluate the effect of education on creativity and learning children's mathematical art and the results of analysis of covariance showed that teaching math artistic creativity and its components are effective learning. Art education math on creativity and effective children's learning And the positive effects of mathematics education through art, creativity and learning abilities of children is on the increase and growth, and promote and improve the performance of a variety of them.

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REFERENCES

1. Poralireza, Totkeleh, A., (2008). Training in psychology framework. Journal of Educational Technology, No. 197, p.32-34.
2. Haghighi, Ebrahim(2009). The role of information and communication technology (ICT) in education. Retrieved on 11.
3. Radpour, F; Shapvryan, F, Shari, et al. (2006). Instructions for art lessons. Tehran: Department of printing and distribution of textbooks.
4. Singer, Mark.j (1990). Management of Human Sources. Translation: Farideh Al Agha (2008). Tehran: Public Administration Training Centre.
5. S. Ayoubi, Fardin (2009) . Features art educator in the kindergarten.
6. Sahrai Elham, (2008). Art and mathematics education, mathematics education papers accepted at the Tenth Conference of Yazd, Iran.
7. Kaveh Moghaddam, Ali, sticky, M; Pyshyarh, Ebrahim; Farhid, M. (2010). The effect of accretion of visual art visual perception skills dyscalculic students. Special children's Neurorehabilitation. Volume 11 Issue.

8. Abbasi Hoseinabadi, M., (2007). Theories and mathematical education goals.

9. Mirza Aghai, Ali, (2000). The role of art, school publications, Third Edition.

10. Motahari, MR, Parsa, Nayyereh. (2005) .tasyrgl play in fostering imagination and creativity and child development, women's message, No. 165, p. 118.

11. Miarsadeghi, Z. (2004). The impact of artistic activity in the development of children's creativity District 10 of Tehran's readiness, master's thesis, University of Allameh Tabatabai.

12. -lowrie, T& Whitland,J.(2000).Problem posing as a tool for learning. Planning and assessment in primary school. In, Nakahara.

13. Dorin , Alan and B . Korb ; Kevin (2009). Improbable Creativity. Dagstuhl Seminar Proceedings 09291 Computational Creativity: An Interdisciplinary Approach http:// drops . dagstuhl . de/opus/ volltexte /2009/2214.

14. Pattey .S.& Morty .c. (2008) . The lmportance of clay and pottery in children development. Child Development ,52,91-103. (http: // www .lakesidepottery .com).