

# Art Teaching on Children Creativity

#### Hossein ZeinaliPour, Nosrat SafaeiDehbarez\*

Hormozgan University, BandarAbbas, Iran.

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This study examines the effect of teaching art on fifth grade primary school boy students' educational creativity in area 2, Bandar Abbas. The study sample consisted of 46 (23 students in test group and 23 in control group) fifth grade primary school boy students. Participants were selected using convenient sampling. To describe groups, descriptive statistics (i.e. mean, SD, and percent) was applied. In dependent t-test and ANCOVA were used for comparing pretest-posttest scores difference between test and control groups. Confidence level was considered to be %95. Results showed that teaching art can enhance learners' creativity.

Keywords: Art, Creativity, Creativity Features.

### **INTRODUCTION**

Creativity is a divine gift manifested in human's mind, thinking, pen, behavior, and act. If the scene is not provided for this gift development, nurture, and practice, human will become deprived of a vital gift. Today, most scholars and researchers believe that human's power originates from his creativity (Frankenhuis & Nettle, 2018; Gocłowska & Crisp, 2014; Schulz, Geithner, Woelfel, & Krzywinski, 2015; Soh, 2017). All societies need creativity. This is because creativity is the basic and main secret of advance for a society which prevents from its dependence, at the same time. Creativity belongs to all people in a society. All of them can reinforce this main need and pave the way for their own scientific and spiritual talents growth(Winner, Goldstein, & Vincent-Lancrin, 2014).

Art seems to be an appropriate context for nurturing creativity. In fact, the relationship between art and creativity is so close that Moga, Burger, Hetland, and Winner (2000) says: the view that studying art makes individuals creative and empowers their imagination has turned out to be become a public belief. However, gaining a new understanding of perception, learning, and creativity requires us to understand how art curriculum is executed at schools and what is the role of art in the future of nurturing creativity at school regarding art subjects.

Regarding the role of school in locating and nurturing students' creative powers, many studies agree that school can nurture and (or) destruct creativity via course contents, teaching methods, and interpersonal relationships between principals, teachers, and students. In an atmosphere with appropriate emotional(Starko, 2013) and mental condition for nurturing students' creativity, students can be expected to consider phenomena from different aspects. On the other hand, one of the(Davies et al., 2013) main functions curriculum experts attribute to

<sup>\*.</sup> Corresponding Author: nsshad@gmail.com

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teaching art is nurturing creative thinking. Many scholars and researchers have emphasized the effect of teaching art on nurturing students' creativity(Fountain, 2007).

John Dewey – the great pragmatist philosopher – considers art to have two aspects in book "Art as Experience" including creative and aesthetic. He believes that these two aspects of art cannot be distinguished. Rather, they are interrelated. Teaching art in educational system nurtures and enhances students' general creativity. Besides, employing creative teaching methods in artistic trainings enhances the artistic abilities and quality of instruction(Berenato, 2008).

Eisner (1985), as an intellect with vast attempts in artistic nurturing area – regards four fundamental consequences for artistic nurturing: a) nurturing divergent thinking, b) creating unity between form and content, c) reinforcing exploration capability, and d) nurturing individuals' attention and ability regarding the problems which can be solved properly by various ways. According to some 7scholars art is an appropriate context for promoting multiple cognitive abilities in learners such as complicated inference and creative problem-solving. He introduces it as another language for learning and considers it as a launch pad for learners' symbolic learning(Baker, 2008).

Chanda and Daniel (2000) carried out a study with an emphasis on analyzing the role of nurturing students' visual arts and creative and critical thinking. They concluded that teaching visual arts has positive effect on students' creativity and critical thinking due to its nature and content. Yorke-Viney (2007), has examined the effect of teaching arts on educational progress, creativity, and self-image. Results showed that students studying at schools with extensive art instruction and artistic activities have higher educational progress as compared to the other group. The first group's creativity and self-concept are higher and better as compared to the second group.

Alter (2010), studied the relationship between teaching art and educational motivation, self-efficacy, and creativity in guidance school students. Results showed that teaching art is accompanied with happiness, charity, perseverance, and hope for students at school. Enhancing creativity and collective work skill were among the consequences of teaching art.

Seif (2009), examined the effect of teaching painting by open method on nurturing 10year-old boy children's creativity in areas 8 and 10, Tehran (in Iran). He concluded that the effect - shown by creativity test scores in this study – creates suitable environment for nurturing creativity. Regarding this necessity and with an experimental approach, the present study examines a limited sample of students' creativity nurturing status after removing the above mentioned obstacles from teaching art. Accordingly, the research problem can be shortly stated as follow: can art teaching lead to students' creativity nurturing and educational progress?

# METHODOLOGY

Regarding the research objectives and hypotheses, this study examined the effect of independent variable (art) on dependent variable (creativity) using quasi-experimental approach (pretest-posttest design with test group). The study sample consisted of 46 (23 students in test group and 23 in control group) fifth grade primary school boy students studying in Area 2, Bandar Abbas between 2016 and 2017. Participants were selected using convenient sampling. Abedi (1993) creativity assessment test was applied to measure slack (pretest) and dependent (posttest) variables. This test was formulated and developed by Abedi (1993). This consisted of 60 items and 3 options. It measures four components including fluency, originality, flexibility, and elaboration by 16, 22, and 11 questions, respectively. Abedi (1993) reported the test

### Art Teaching on Children Creativity

reliability as 0.85 using retest. The test validity was tested using content validity or face validity. This is because this test has been used in several studies and its validity is approved.

All participants in the test group received 25 sessions of art activities instruction during a semester. These sessions included five sessions of painting, five sessions of workmanship, five sessions of auditory training, five sessions of storytelling, and five sessions of role-playing. Since two hours a week were considered for art course, the sessions were administered successively every week. Yet, it must be remembered that five sessions of painting were not administered successively. Based on the succession of art content domain in primary course period, the teaching procedure was as follow: first, an activity from painting content was administered. In the second session, an activity was selected from workmanship area. In the third session, an auditory training activities were presented. At the end of this course, a new course of activities began. When all five courses finished, an integration of activities was carried out in three remaining sessions of the study.

Control group participants did not receive any other instruction than their ordinary schedule. All participants filled out creativity and science course achievement questionnaire before and immediately after test (at the end of final session).

## RESULTS

Results were analyzed using ANCOVA due to using pretest and posttest in this study. This test examined the effect of independent variable on dependent one after the omission or control of slack variable. Like many parametric statistical methods, this technique is also based on some assumptions. If these assumptions are violated, then the validity of results will be questioned. Hence, they will be discussed in the forthcoming section and then research hypotheses will be tested.

### Variances Homogeneity

Levene's test was used to examine this assumption. In examining total test score, F-value=0.20 was at 0.65 level of significance. It was higher than the acceptable level. Hence, there is insignificant difference between groups' variances. Then, variances' homogeneity is established. Table 1 shows the results of variances homogeneity at different test levels. Based on the table, variances' homogeneity is established for all components, except elaboration.

### **Regression Coefficients Homogeneity**

The relationship between slack and dependent variables must be homogenous in different groups. To examine this assumption, the mutual effect of independent (group) and slack variable (pretest) was used. Obviously, the rejection of H0 indicates data regression coefficients' heterogeneity. Table 2 lists results both for total test and based on each level. That is, regression coefficients have insignificant difference in various groups. In fact, they are homogenous.

As seen in Table 3, regression coefficients are homogeneous in innovation, fluency, and flexibility components as well as total test score. Only, elaboration – as one of the test levels - lacks this important assumption. To put it more clearly, first, descriptive results for mean and SD will be reported. ANCOVA results are presented in Table 4 to examine the effect of independent variable (group) on dependent variable (creativity) and its levels (innovation, fluency, flexibility, and elaboration).Results indicate that teaching art can increase creativity. Among creativity features, the refined mean of five groups showed significant difference at all components – except elaboration.

Test levels	F	Р	Status
Fluency	0.22	0.06	Desirable
Innovation	0.14	0.63	Desirable
Flexibility	0.25	0.70	Desirable
Elaboration	0.20	0.62	Desirable
Total	0.96	0.65	Desirable

Table 1. Levene's Test for variances homogeneity

Table 2. Regression variances homogeneity results based on test components

Test levels	SS	df	MS	F	Р	Status
Fluency	663.14	1	663.14	7.86	0.01	Desirable
Innovation	1739.13	1	1739.13	35.38	0.01	Desirable
Flexibility	521.31	1	521.31	44.12	0.01	Desirable
Elaboration	0.01	1	0.01	0.002	0.01	Desirable
Total	3556.35	1	3556.35	41.05	0.01	Desirable

Table 3. Case and control groups mean and SD in pretest and posttest

Test			Pre	etest		Posttest				
Creativity feature	res status	Fluency	Innovation	Flexibility	Elaboration	Fluency	Innovation	Flexibility	Elaboration	
Test group	Test group M		41.69	20.60	20.60	39.62	59.26	30.12	27.17	
	SD	12.27	15.19	7.58	7.58	8.17	16.2	4.93	7.62	
Control group	М	29.52	41.34	20.56	20.56	29.52	41.52	20.56	27.65	
	SD	10.25	14.62	7.63	8.32	10.25	12.94	7.63	5.27	

Table 4. ANCOVA results for the effect of independent variable on dependent variable and its levels

Test levels	SS	df	MS	F	Р
Fluency	631.31	1	631.31	5.38	0.01
Innovation	1881.04	1	1881.04	5.1	0.02
Flexibility	530.88	1	530.88	5.67	0.02
Elaboration	0.09	1	0.09	0.01	0.97
Total	3809.39	1	3809.39	4.67	0.03

## CONCLUSION

Based on H1, teaching art increases fifth grade primary school boy students' creativity. Based on results from data analysis, this hypothesis is approved. This correlates with results reported by Eishani, Saa'd, and Nami (2014) they carried out. Their study on the third grade guidance school students, in Tehran. Results showed that teaching art can improve creativity. This corresponds with Fowler (1989) results He implies that creativity is resulted from aesthetic perception where. Everything is arranged harmoniously. A creative person acts at high levels of integration, unification, harmony, and cohesion. He understands the sense of beauty benefited from simplicity, symmetry, and delicacy. He makes attempt to obtain it and demonstrate it in his works.

This study also corresponds with the research by Alter (2010) at Melbourne University. Regarding this correlation, it can be said that there is an important point in Alter's study. That is, other aspects including art critique, curriculum revision and the relationship between discussions regarding creativity in art and other educational areas and courses must be noted. This important

#### Art Teaching on Children Creativity

point must be noted in art curriculum. Based on results from Baas, De Dreu, and Nijstad (2008) study, creativity teaching curriculum will be successful, if a learning environment is provided where the learner benefits from art teaching classrooms giving him positive and good feelings The presence of negative or fear and anxiety states reduces or removes creativity process.

Regarding H2, results showed that teaching art can increase fluency – one of creativity features. In this study, fluency posttest score significantly increased. This study also correlates with the study by Shaw and DeMers (1986). In Shaw's study, the relationship between mental imagery – one of the art teaching components – and artistic nurturing approach with the fluency element of creativity is proved. This correlates with the results of the present study. Results of the present study also correlate with the results reported by Lewis, Shaw, and Freeman (2010) regarding the flexibility element of creativity. Result regarding the relationship between teaching art and artistic nurturing approach with elaboration component of the fifth grade students' creativity showed that teaching art by artistic training approach did not enhance the elaboration component of creativity. Results of this study do not correlate with the results reported by Lewis reported by Lewis et al. (2010) regarding the elaboration element of creativity. Yet, they correlate with Lewis et al. (2010) study. Based on the contents of art curriculum for primary school, a variety of activities related to related parts were practiced. Yet, participants did not achieve this component of creativity. It is likely that the short term of teachings has prevented the students from developing many diverse ideas.

One of the limitations of the execution of art curriculum activities and contents included: 1) lack of facilities and materials; 2) lack of independent art teacher and adequate teaching, 3) lack of time allocated to art course; 4) lack of control over some other key variables of creativity (such as creativity and motivation, creativity and self-esteem, familial factors); and 5) not controlling some critical variables in educational achievement which cannot be controlled by researcher (such as teacher's role, inappropriateness of methods versus curriculum contents.

Based on the results of this study, it is suggested that special meetings and conferences are administered to justify and inform schools and educational centers management staff from the effective role of artistic training on students' scientific and educational achievement and personality and moral growth. Similarly, allocating instructional materials and resources as well as instructional aides to primary schools is among the major factors in the effective implementation of various art plans. Above all, administering activities related to art training actually requires schools to be equipped with art teaching and instructional materials and aids. Lack of these facilities will lead to the failure and inefficiency of educational centers in realizing art training objectives.

The interested researchers are also suggested to carry out studies on the followings: on diverse society of students (in educational degree, city). At the same time, to better generalize results, they can conducted studies on larger sample sizes. Besides, the duration of sessions can be increased in future studies.

### REFERENCES

Abedi, Jamal. (1993). Creativity and new ways of measuring it. *Journal of psychological research*, 182(2), 13-15.

Alter, F. (2010). Using the visual arts to harness creativity. The university of melbourne refereed ejournal, 1(5).

Baas, Matthijs, De Dreu, Carsten KW, & Nijstad, Bernard A. (2008). A meta-analysis of 25 years of mood-creativity research: Hedonic tone, activation, or regulatory focus? *Psychological bulletin*,

134(6), 779.

- Baker, Christina N. (2008). Under-represented college students and extracurricular involvement: The effects of various student organizations on academic performance. *Social Psychology of Education*, 11(3), 273-298.
- Berenato, Carolyn L. (2008). A Historical Analysis of the Influence of John Dewey's Educational Philosophy on the Barnes Foundation's Art Educational Experience: 1922 to the Present: ProQuest.
- Chanda, Jacqueline, & Daniel, Vesta. (2000). ReCognizing works of art: The essences of contextual understanding. *Art Education*, 53(2), 6-11.
- Davies, Dan, Jindal-Snape, Divya, Collier, Chris, Digby, Rebecca, Hay, Penny, & Howe, Alan. (2013). Creative learning environments in education—A systematic literature review. *Thinking skills and creativity*, *8*, 80-91.
- Eishani, Khalil Allah, Saa'd, Ebrahim Ata, & Nami, Yaghoob. (2014). The relationship between learning styles and creativity. *Procedia-social and behavioral sciences*, 114, 52-55.
- Eisner, Elliot W. (1985). The art of educational evaluation: A personal view: Taylor & Francis.
- Fountain, Heather Leah Ryerson. (2007). Using art to differentiate instruction: An analysis of its effect on creativity and the learning environment. Purdue University.
- Fowler, Charles. (1989). The Arts Are Essential to Education. Educational Leadership, 47(3), 60-63.
- Frankenhuis, Willem E, & Nettle, Daniel. (2018). Open science is liberating and can foster creativity. *Perspectives on Psychological Science*, *13*(4), 439-447.
- Gocłowska, Małgorzata A, & Crisp, Richard J. (2014). How dual-identity processes foster creativity. *Review of General Psychology*, 18(3), 216.
- Lewis, Scott E, Shaw, Janet L, & Freeman, Kathryn A. (2010). Creative exercises in General Chemistry: a student-centered assessment. *Journal of College Science Teaching*, 40(1), 48.
- Moga, Erik, Burger, Kristin, Hetland, Lois, & Winner, Ellen. (2000). Does studying the arts engender creative thinking? Evidence for near but not far transfer. *Journal of Aesthetic Education*, 34(3/4), 91-104.
- Schulz, Klaus-Peter, Geithner, Silke, Woelfel, Christian, & Krzywinski, Jens. (2015). Toolkit-Based Modelling and Serious Play as Means to Foster Creativity in Innovation Processes. *Creativity* and Innovation Management, 24(2), 323-340.
- Seif, A. (2009). New educational psychology. Tehran: Loran.
- Shaw, Geraldine A, & DeMers, Stephen T. (1986). The relationship of imagery to originality, flexibility and fluency in creative thinking. *Journal of Mental Imagery*.
- Soh, Kaycheng. (2017). Fostering student creativity through teacher behaviors. *Thinking skills and creativity*, 23, 58-66.
- Starko, Alane Jordan. (2013). Creativity in the classroom: Schools of curious delight: Routledge.
- Winner, Ellen, Goldstein, Thalia R, & Vincent-Lancrin, Stéphan. (2014). Does arts education foster creativity? The evidence so far. *International yearbook for research in arts education*, 2, 95-100.
- Yorke-Viney, Sally A. (2007). An examination of the effectiveness of arts integration in education on student achievement, creativity, and self perception: ProQuest.