

INVESTIGATING THE IMPACT OF THE PHILOSOPHY PROGRAM FOR CHILDREN IN CREATIVITY DEVELOPMENT OF SIXTH-GRADE ELEMENTARY SCHOOL STUDENTS IN THE FOURTH DISTRICT OF TEHRAN

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Abstract. The aim of this study is to investigate the Impact of the implementation of the (teaching children philosophy) program on creativity development of sixth-grade elementary school students in Tehran's Fourth District. This research was carried out using a semi-experimental method and using the design of the preliminary and final tests with the control group. The statistical population of this study was all sixth-grade male students of the fourth district of Tehran in the academic year of 2018-2019. Of them, 60 students were selected by cluster multistage sampling. (30 in control and 30 in experimental groups). After conducting the training course, Abedi's creativity test was used in order to collect data and to analyze the data, student's t-test method was used for dependent groups. In general, the findings of this study confirmed the validity and reliability of the philosophy program for children in creativity development and its four main components: Fluency, elaboration, Originality, and flexibility.

Keyword: Creativity, philosophy for children, the research community, creative thinking.

Introduction. Creativity is the process of solving problems, differences of opinion about information, making mistakes in elements and factors, objects and things such as guessing and forming hypotheses about these deficiencies, assessments and testing these guesses, assumptions, the probability of correction and re-testing and eventually linking the results (Salahshuri, 2003; 9). Creativity is the focus of the research of many scholars and is one of the major goals of education, based on which one can raise people who are able to adapt to the present-day life and complex world, cultural, social and economic changes and developments, and a better future. What is so required is the existence of creative people who do not want to live in the world as it is today, but want to create a different world (MCDONALD, 2005; 38).

Given that creativity and thinking of creative people of society are important and main factors in the development of society, we must look for programs that can enhance this ability (Maghsoudi, 2007: 5) Programs designed to improve children's thinking skills can be grouped into several categories: 1. Programs that consider thinking skills as separate courses. 2- Programs that teach thinking skills in the area of a course. 3. Programs that develop thinking skills in all areas of the curriculum. The third method is the combined method, in which teachers learn to put their thinking into practice through their teaching so that they can teach their thinking skills with pre-designed teaching materials (Burke & Williams, 2008; 104 - 124). One of the most successful efforts is to create a coherent curriculum in the teaching philosophy program for children which is provided by Matthew Lipman et al. at the University of Montclair. The program is designed to provide a curriculum for the philosophical exploration for children from kindergarten to university and is currently implemented in many countries around the world (Fisher, 2009: 44).

Lipman (2003) argues that philosophy for children is an educational measure that improves children's thinking and uses philosophy as a way of fostering ethical thinking, critical thinking, and creative thinking (quoted from Safaei Moghaddam et al., 2010: 84).

When the philosophy for children program is implemented, its purpose is not to teach philosophy (a set of philosophical opinions) as a subject for children, but to teach children philosophical method through class discussions, The philosophical method is the method of rational research and logical analysis, often referred to as the Socratic method (Mitha, 2004).

The methods of teaching philosophy to children that Lipman et al. put forward focuses on the close relationship between the teacher and the student and the motivation to start a discussion through a story, poem, or event, and the like. In this way, students are given the opportunity to think and then enter class discussions. These dialogues provide an opportunity for more thought and can shape philosophical groups in different ways and turn the school into a place for research and thought (Qaralamky, 2005: 24). Philosophy for children is a form of education that, In order to acquire thinking skills, social skills, and the perspectives necessary for a democratic citizen, integrates philosophical methods and content and pragmatic ideas (research community) (Bleazby, 2007; 3).

The program aims at educating children who are tomorrow's citizens and scientists to think and decide for themselves as much as possible. Lipman proposes that in order to make the research and study the focus of education, the

classroom should be converted into circles or communities that welcome the relationship of friendship and cooperation for positive participation in the educational environment. This positive participation space replaces the competitive atmosphere that prevails in many traditional classes. Specific features of the study circles are non-hostile thinking, shared cognition, self-correction, philosophical culture, and imagination, strengthening the ability to study and comprehend the texts based on dialogue and enjoying them (Naji, 2010: 1/126).

Research Background:

For the first time in Iran, Safai Moghadam published an article entitled "Children's Philosophy Education Program" in 1998. In this article, while introducing the contents of the program, the methods of implementation, the fields of formation and the factors influencing its development and growth, He acknowledges that the program is consistent with the goals and spirit of Islamic education. Naji and Ghazinejad (2007) conducted qualitative research on elementary school students and confirmed the further development of the intellectual skills of these children. Strengthened skills included reasoning, differentiation of similar affairs, correct judgment, critical thinking, and creative and responsible thinking.

Eskandari and Kiani studied the impact of the story on increasing the student philosophy skill and questioning. Their research results showed that:

1. Comparison of the mean scores of students' questioning skills with the mean of society confirms that the questioning skill and its dimensions in students are above average.
2. Comparison of the mean dimensions of questioning skill shows that the dimension of existential motivation is at the highest level and universal skill is at the lowest level.
3. Teaching the story is effective in raising the level of questioning skills and its dimensions, but it is small in terms of transformation and not statistically significant (Eskandari and Kiani, 2007: 22 - 36).

Sharifi Najaf Abadi (2010) for his master's thesis in public psychology, has conducted research entitled "(Effect of narration -based philosophy teaching on the problem-solving ability of female elementary school students in Isfahan city)". In order to do this research, the researcher selects a sample of 28 first-year elementary school students using cluster multistage random sampling from Isfahan's 5th Education District in the form of two schools and one class in each. He then teaches students with a Lipman-style philosophy for children program and five stories. The results of the analysis of the research data show that teaching philosophical thinking based on narration has a significant effect on problem-solving, decision making, design, analysis, system planning skills and improves above skills.

According to research conducted by Chan Kong et al. (2007) in Singapore, the research results showed that students participating in the philosophy for children program showed better performance in critical thinking and creative thinking skills. They have also shown the ability to express thoughts and respect others' opinions.

Purpose and research hypotheses:

The purpose of this study has been to investigate the impact of the philosophy for children program in the research community in the creativity development of sixth-grade elementary school students in the fourth district of Tehran.

The hypotheses of this research are:

1. The implementation of the Philosophy for Children Program will develop the creativity of sixth-grade elementary school students in the Creativity Test.
- 2- The implementation of the philosophy for children program will increase the mental Fluency of the sixth-grade elementary school students in the creativity test.
- 3- The implementation of the philosophy for children program will increase the mental Originality of the sixth-grade elementary school students in the creativity test.
- 4- The implementation of the Philosophy for Children program will increase the mental elaboration of the sixth-grade elementary school students in the creativity test.
- 5- The implementation of the Philosophy for Children program will enhance the mental flexibility of the sixth-grade elementary school students in the Creativity Test.

Research Methodology. The research method is Semi-experimental. In order to conduct research, the class was established as a workshop in 20 consecutive sessions. In this workshop, classroom techniques such as the study circle and Sharp-Lipman and Philip can Editorial stories have been used. The educational content of these workshops has been the thinking stories book.

Statistical population: The statistical population of this study was all male sixth-grade elementary school students in the fourth district of Tehran during the academic year of 2018-2019. A cluster multistage sampling method was used to select a sample in this research (Sarmad et al., 2004: 185).

In this research, an elementary school was randomly selected (Shahid Abshenasan). In the second stage, two classes were randomly selected six grade classes. In the next step, one of these two classes was selected as the control group and the other was randomly selected as the experimental group. According to this, the sample size of this research is 60 (30 people in each group). In order to collect information in this study, Abedi's creativity test was used. The questionnaire consists of 60 questions, in which the score is in the form of Likert scale. The total score of the four components is the total score of the subject's creativity. The maximum score for each person is 180 and the minimum score is 60. Abedi examined the reliability

of this test using Cronbach's alpha and its validity using factor analysis method. The reported results indicate the good reliability and validity of the questionnaire. In this research, due to the fact that the content of the measure of creativity has not been changed and the test is fully implemented, there is no need to re-calculate its validity and reliability (Naderi and SeifNaraghi, 2010: 44).

Research findings:

The descriptive findings of the study included the mean and standard deviation of the studied variable in the current study and the results are presented in Table 1.

Table 1. Mean, standard deviation, maximum and minimum score of creativity in the experimental and control group in the preliminary and final tests.

number	Max	Min	Standard deviation	Mean	Variable	Groups	stage
30	63	42	4/17	39/20	Fluency	control	Preliminary test
30	29	16	2/32	23/60	elaboration		
30	48	28	5/38	30/13	Originality		
30	31	21	2/03	26/65	Flexibility		
30	167	112	13/9	132/45	Creativity total score		
30	60	42	5/16	51/86	Fluency	experimental	
30	30	16	2/23	23/80	elaboration		
30	43	29	4/38	38/13	Originality		
30	29	18	1/07	27/56	Flexibility		
30	158	116	35/61	141/366	Creativity total score		

The findings of Table 1 show that the mean score of creativity in the experimental group at the final stage of the test was significantly increased compared to the preliminary test, while the control group did not show this change.

Inferential Findings:

In this research, Student's t-test was used to test the hypotheses. In order to differentiate the variances in the experimental and control groups, the Levene's test has been used in the preliminary test, the results of which are shown in Table 2.

Test for equality of means			Test for equality of variances		Standard deviation	Mean	Number	Subject group	Variable
Sig. level	DOF	T	Sig. level	F					
0/556	58	0/59	0/587	0/299	5/1777	49/1760	30	control	Fluency
					4/8519	49/9011	30	experimental	
0/970	58	0/03	0/341	0/920	3/2313	23/7612	30	control	elaboration
					3/5494	23/7000	30	experimental	
.022	58	2/35	0/117	1/807	5/3802	36/1230	30	control	Originality
					3/5378	35/1000	30	experimental	
0/117	58	1/59	0/96	2/871	3/0249	24/1411	30	control	flexibility
					2/2702	23/2910	30	experimental	
0/150	58	1/46	0/36	0/852	13/84	133/9013	30	control	Creativity total score
					10/75	132/0533	30	experimental	

Sig. level	DOF	T	Mean standard error	Means difference	Standard deviation	Mean	number	index groups
.10	29	3/29	2/26	13/06	10/56	3/15	30	Control
					10/11	-10/5	30	Experimental

The F values in Levene's test are not significant at 0.5 error level, as shown in Table 2. so it is concluded that there is no significant difference between the variance of the scores of the control and experimental groups. That is, variances of the groups are homogeneous.

The first hypothesis of research:

The implementation of the Philosophy for Children program develops the creativity of the sixth-grade elementary school students.

Mean scores of creativity of control and experimental groups were compared using T-test and the results are shown in Table 3.

Table 3. The results of the dependent t-test for comparing the mean scores of creativity of the experimental and control groups

The results of Table 3 show that there is a significant difference between the experimental and control groups in terms of creativity variable at $P \leq 0.1$ level, so the first hypothesis of the research is confirmed. In other words, the Philosophy for Children program develops student creativity.

The second hypothesis of research:

The implementation of the philosophy for children program will increase the mean score of Fluency of the male sixth-grade elementary school students.

Table 4. The results of the dependent t-test for comparing the scores of Fluency of the experimental and control groups

Sig. level	DOF	T	Mean standard error	Means difference	Standard deviation	Mean	number	index groups
.1	29	1/64	1/03	3/01	3/75	0/3	30	Control
					4/07	-2/56	30	Experimental

The results of Table 4 show that there is a significant difference between the experimental and control groups in terms of Fluency variable at $P \leq 0.1$ level, so the second hypothesis of the research is confirmed. In other words, the Philosophy for Children program will increase student Fluency.

The implementation of the philosophy program for children will increase the score of the mental elaboration of sixth-grade elementary school students in the creativity test.

Table 5. The results of the dependent t-test for comparing the scores of elaboration of the experimental and control groups

Sig. level	DOF	T	Mean standard error	Means difference	Standard deviation	Mean	number	index groups
.004	29	2/08	1/1	2/4	2/33	1/01	30	Control

					3/35	-3/21	30	Experimental

The results of Table 5 show that there is a significant difference between the experimental and control groups in terms of elaboration variable at $P \leq 0.5$ level, so the third hypothesis of the research is confirmed. In other words, the Philosophy for Children program will increase student elaboration.

The fourth hypothesis of research:

The implementation of the philosophy for children program will increase the score of the Originality of the sixth-grade elementary school students in the creativity test.

Table 6. The results of the dependent t-test for comparing the scores of Originality of the experimental and control groups

Sig. level	DOF	T	Mean standard error	Means difference	Standard deviation	Mean	number	index
								groups
0./005	29	2/32	1/02	3/63	4/3	1/3	30	Control
								Experimental

The results of Table 6 show that there is a significant difference between the experimental and control groups in terms of Originality variable at $P \leq 0.5$ level, so the fourth hypothesis of the research is confirmed. In other words, the Philosophy for Children program will increase student mental Originality.

The fifth hypothesis of research:

The implementation of the philosophy for children program will increase the score of the flexibility of sixth-grade elementary school students in the creativity test.

Table 7. The results of the dependent t-test for comparing the scores of the flexibility of the experimental and control groups

Sig. level	DOF	T	Mean standard error	Means difference	Standard deviation	Mean	number	index
								groups
0.2	29	2.95	0.75	2.54	3.19	0.4	30	Control
								Experimental

The results of Table 7 show that there is a significant difference between the experimental and control groups in terms of flexibility variable at $P \leq 0.1$ level, so the fifth hypothesis of the research is confirmed. In other words, the Philosophy for Children program will increase student mental flexibility. *Conclusion.* As we said, Teaching creativity for teens and the development of creative thinking are one of the most interesting discussions in our educational system. It can be said that creativity can be trained and creativity can be taught to children through appropriate methods, but little agreement is reached on the methods used (Jahani, 2008: 50). In this research, a part of the Lipman program was tested among Iranian adolescents. The analysis of the research data showed that the implementation of the philosophy for children program encourages the development of creativity and its four main components (Fluency, elaboration, Originality, and flexibility). The findings of this study are consistent with the findings of the studies of Naji and Ghazinejad (2007), Jahani (2007), Sharifi Najafabadi (2010), Rustami (2011), Lipman and Sharp (1975), Crane (2009). These Researches have shown that

thinking education in the form of philosophy for children program develops cognitive skills such as creative thinking, critical thinking, and problem solving in students.

Lipman says that children are very active at the beginning of the kindergarten, but gradually become passive beings. Lipman searches for this in different structures of the home and school. But in an interesting comparison between home and school, it is concluded that children at home are faced with an unorganized environment that can manipulate phenomena at any time and observe the result, but at school, he faces a collection of organizing principles. Behind this organization may be a recession or lack of creativity (Lipman, 1991: 11). Lipman proposes to enrich the environment and the application of the Critical Thinking Education Model in the form of philosophy for children program to escape this limitation. The main recommendations of Lipman in this regard include using the important tools of the research community and turning the classroom into research groups, guiding individuals to regulate experienced communication, cultivating the judgment ability in children (quoted by the Jahani (2009: 96).

Lipman divides the cognitive skills into four categories that the program tries to grow:

1-Breeding skills. 2. Reasoning Skill. 3- Organizing information Skill. Translation skills (ibid: 107).

From Lipman's point of view, the research community is considered as one of the most important types of cognitive skills. Research skills include several partial skills, such as problem-solving ability, hypothesizing, information gathering to test the hypothesis and conclusion (World, 2009: 107).

The skills mentioned are precisely those stages of the process of creativity from the perspective of Torrance. Therefore, the development of these skills should lead to the development of the creativity of children and adolescents in the context of the research community (the Philosophy for Children Program). The fact that children read philosophical themes or thinking stories and face ambiguous situations that they find that there are issues that they must find a solution to. They will learn to collect information and anticipate and extract the appropriate hypotheses and test these hypotheses, so it can be said that the development of research skills in the context of the research community is an appropriate tool for the growth of creativity (Sadeghi MalAmiri, 2007: 181). Creativity Development has nine features of challenge, freedom, trust, happiness, and humor, a lot of time for ideas, conflict reduction, support for ideas, discourse and risk-taking (EKVall, 1996: 105). Given the fact that the characteristics of the organizational climate features for creativity, the Lipman study circle can be considered an appropriate space for creativity. On the whole, as can be seen from the above, it can be concluded that the talents and skills that grow in the study circle are directly and indirectly related to creativity skills.

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