

The Effects of Different Types of Educational Evaluation on Preschoolers' Creativity in Karaj

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Abstract—This study investigates the effects of different types of educational evaluation on preschoolers' creativity in Karaj on the basis of survey method and correlation. The statistical population consists of all pre-school teachers in Karaj who were 1218 participants in the academic year of -2012-2011. The sample comprises 383 who were selected according to the stratified random sampling on the basis of Morgan's Formula for determining sample size. The survey instrument was a researcher-made questionnaire with 21 questions which was designed according to Likert scale. Its validity has been evaluated by 30 university professors and its reliability is calculated on the basis of Cronbach's alpha which is 0.83. In this study, the results reveal that there is no significant relationship between the initial, formative, cumulative evaluation and the creativity of students.

Index Terms—pre-school teachers, initial evaluation, formative evaluation, summative evaluation, creativity

I. INTRODUCTION

Among the components and basic elements of educational system, the element of educational evaluation can be distinguished from other elements and components of this system in different aspects. Because on the one hand the evaluation process concerns on extensive activities at different levels, especially at schools, teachers and administrators and on the other hand it focuses on the learners and students whose actions and reactions toward the subject will have deep and broad effects on families and eventually on the society. In addition, in the education system as well as other processes that formed it especially lesson planning, teaching practices and methods and mainly the learning and teaching process are severely affected by the functions and methods of evaluation [1].

The experts in the field of educational sciences have elaborated the necessity and importance of evaluation in education system as follows:

- Gaining precise information about the goals of learning, results which must be obtained from

educational activities and programs and making decision about those results

- Supporting plans and initial and compensatory educational activities in order to fix deficiencies and achieving the educational goals and human resource development
- Promoting individuals' commitment and attachment to educational activities and consequently to realizing educational goals
- Providing the necessary grounds for creating appropriate structure and organizational environment and developing the human resources in order to realize the goals and ultimately the country's cultural, economic and social development
- Accountability to educational activities and ensuring the individuals and the society of these activities
- Giving information about educational activities [2].

Seif argues that evaluation is a systematic process for collecting, analyzing and interpreting of information, by the aim of determining the fact that whether the desired goals are achieved or are being achieved and how much [3].

Cronbach considers evaluation as the collection and use of information to make decisions about an educational program. In his view, the success or failure of educational programs can be possibly determined only through the collection of data in the real teaching - learning situations. Also, any decisions about the educational program should be based on this collected information [4].

Educational assessments can be classified according to their time and the aim of their usage. In this respect, educational assessments and their tests which are used can be divided into four categories: the initial evaluation, formative evaluation, diagnostic evaluation and summative evaluation.

Initial Evaluation: The first evaluation of the teacher which is carried out before training activities is called the initial assessment. This type of evaluation are used for two purposes, namely to answer the following two questions.

The variable that researcher is seeking to find its relationship with the other types of evaluations is creativity of students. For creativity different definitions are presented [5].

Santork defines creativity as the ability to think about the new and unusual ways to achieve unique solutions to problems. For Lotanez Creativity means to create a mixture of ideas and approaches to individuals or groups as a new method [6].

Sternberg believes that creativity is quite multifaceted that thinking style, personality, motivation and environmental context have impact on it [7].

Creativity contains elements such as: skills' territory, creative thinking skills and motivation. For the emergence and strengthening of people's creativity, the confluence of these three elements must be specified, since these intersections is a powerful combination that can propel a person towards [8].

In addition to the theoretical background with respect to two variables of this study many studies are conducted to measure the impact of evaluation on students' creativity. In what follows, we have chosen to focus on some empirical studies conducted in this regard [9].

In a research called the impact of evaluation on elementary students' educational progress and creativity, it was revealed that evaluation on its own has no impact on students' educational progress and creativity. There was no significant difference between male and female teachers' point of view on the issue and it was concluded that evaluation improves education quality [10].

Abbasi in his study reviewed the process, through which the senior managers evaluate the performance of subordinate managers and revealed that according to their point of view, in this process, the following issues are taken into consideration:

Evaluators' competencies

The effect of evaluation on creating job satisfaction

- Considering evaluation goals
- Evaluation Comprehensiveness and System
- Reliability and validity of the evaluation plan
- Using various sources
- Desirability of applying usual evaluation methods [11]

Nadrlou in reviewing the goals of continuous assessment in students' teaching-learning process showed that the use of continuous evaluation leads to the increase in stability of students' learning [12].

Haqiqi also in his study investigated the role of educational evaluation in deepening the process of learning among elementary students in Tehran and indicated that there is a significant and meaningful relationship between the two groups' level of learning. That is, the experimental group have performed better than the controlled group [13].

Sharifi studied teachers' performance in order to determine evaluation indicators. He showed that the applied indicators in evaluating job behavior, performing factors and standards of ethics are reasonable from teachers' and administrators' point of view [14].

Kord by investigating the relationship between feedback in evaluation and academic achievements revealed that there was significant difference between educational improvement in those students who received feedback and those who did not [15].

Shahi in his research studied teachers' opinions about education evaluation of teachers in order to offer a scientific and appropriate strategy in the process of educational evaluation within the country. He found out that the most respondents have given the priority and importance respectively to personal traits, professional skills, providing feedback, paying attention to physical and environmental factors and teachers' organizational behavior. Thus, considering all these aspects is effectively required to boost teachers' efficiencies and competencies. As a result, a comprehensive and appropriate evaluation plan is the one which incorporates all these dimensions [16].

Abu Muhammadi investigated elementary teachers' viewpoint about descriptive evaluation and gained the following results: 75 percent of the teachers did agree with this plan and have pointed to its positive effects such as reducing stress, boosting learning feedback, increasing the quality level. However, they didn't ignore the plan's weak points; they believe this method of evaluation is time-consuming and besides, the parents have not been justified about it [17].

Egan in his study believes that the most important constituent elements of creativity are personality factors such as situation of internal control and internal motivation in students, as elsewhere, he says development of human resources, feedback-making, leadership, teaching methods and how to evaluate teachers also are factors of the creativity [17].

As the literature shows, many studies are conducted theoretically and empirically with respect to the concept of evaluation and creativity. However, all the relations and studies are conducted by using various indicators and different samples. Subsequently, the results are hardly comparable and the need for more studies to determine the relationship between different types of evaluation and students' creativity in different contexts with different samples is always felt. With this view, this study is conducted to investigate the effects of different types of education evaluation on preschoolers' creativity in Karaj.

II. RESEARCH METHODOLOGY

This study investigates the effects of different types of educational evaluation on preschoolers' creativity in Karaj on the basis of survey method and correlation. The statistical population consists of all pre-school teachers in Karaj who were 1218 participants in the academic year of 2012-2011. The sample comprises 383 who were selected according to the stratified random sampling on the basis of Morgan's Formula for determining sample size. The survey instrument is a researcher-made questionnaire with 21 questions which was designed according to Likert scale. Its validity has been evaluated by 30 university professors and its reliability is calculated on the basis of Cronbach's alpha and it is 0.83. In data

analyzing, to evaluate the relationship between the initial, formative, summative evaluation and creativity of students, Pearson correlation test was used, and to calculate the coefficient the Regression model was applied.

III. RESULTS

The First Question: Is there any relationship between the initial evaluation and preschool students' creativity in Karaj?

Based on the Pearson correlation coefficient obtained - 0.053 with 0.150 of the significant level and comparing this level of significance with 0.05, it is observed that

there is no meaningful relationship between the initial evaluation of preschoolers and their creativity (Table I).

TABLE I. PEARSON CORRELATION TEST RELATED TO THE FIRST RESEARCH QUESTION

		Creativity
The initial evaluation	coefficients Correlation	0.053
	-significant level	0.150
	The number	384

According to value of the correlation coefficient obtained from the $R^2 = 0.003$ it is observed that the variable of initial evaluation of students, only determines 0.3% of their creativity changes (Table II).

TABLE II. STATISTICAL SUMMARY OF REGRESSION MODEL

Model	The correlation coefficient	Coefficient of determination	Corrected coefficient of determination	Standard deviation, coefficient of determination corrected
1	0.053	0.003	0.000	23.91

The Second Question: Is there any relationship between the formative evaluation and preschool students' creativity in Karaj?

Based on the Pearson correlation coefficient values obtained -0.060 with the significant level of 0.121 and comparing this significant level with 0.05, it is observed that there is no significant relationship between preschoolers' formative evaluation and their creativity (Table III).

TABLE III. PEARSON CORRELATION TEST RELATED TO THE SECOND RESEARCH QUESTION

		Creativity
formative evaluation	-Correlation coefficient	-0.060
	significance level	0.121
	the number	384

TABLE IV. THE THIRD QUESTION: IS THERE ANY RELATIONSHIP BETWEEN THE SUMMATIVE

Model	The correlation coefficient	Determination coefficient 2)R(Corrected determination coefficient	Standard deviation, corrected determination coefficient
1	060.0	004.0	001.0	91.23

Based on the correlation coefficient value and $R^2=0.004$ the, obtained determination coefficient, it is observed that formative evaluation of students only has determined 0.4% of their creativity changes (Table IV). evaluation and preschool students' creativity in Karaj?

In order to investigate the relationship between the students' summative evaluation and their creativity, Pearson Correlation Test is used.

Based on the Pearson correlation coefficient value which is 0.013 and the significant level of 0.402 and by comparing this significant level with 0.05 it is observed that there is no significant relationship between the preschoolers' summative evaluation and their creativity (Table V). Considering the correlation coefficient values and the determination coefficient $R^2= 0.001$, it is

observed that summative evaluation of the students has determined only 0.1 % of their creativity changes (Table VI).

TABLE V. STATISTICAL SUMMARY OF REGRESSIONMODEL RELATED TO THE SECOND QUESTION

		Creativity
Summative evaluation	The correlation coefficient	013.0
	Significant level	402.0
	The number	384

TABLE VI. THE THIRD QUESTION: IS THERE ANY RELATIONSHIP BETWEEN THE SUMMATIVE

Model	The correlation coefficient	Determination coefficient 2)R(Corrected determination coefficient	Corrected standard deviation, determination coefficient.
1	013.0	001.0	000.0	95.23

IV. CONCLUSION

The obtained results in the current study indicate that

there isn't any significant relationship between the initial, formative, and summative evaluation and the preschoolers' creativity. Previous studies also go on the same track. For instance, Ismaelbeigi (2005) revealed that

evaluation by itself does not influence the students' creativity and their educational progress. There was no significant difference between male and female teachers' point of view on the issue and it was concluded that evaluation only improves education quality. In addition, Nadrlou (2004) showed the use of continuous evaluation only boosts stability of students' learning. Sternberg (2003) also concluded that creative students have qualities such as high achievement motivation, great curiosity, a keen interest in having discipline in tasks, the ability of self-expression, having an independent personality, having perseverance, being disciplined in doing tasks, critical thinking, having sense of beauty, being interested in art, high sensitivity to social issues, intuitive thinking and the ability to have influence over other people. Likewise, Egan (2005), in a study, pointed out that the most important constituent elements of creativity are personality factors such as situation of internal control and internal motivation in students; however, elsewhere, he states that development of human resources, feedback-making, leadership, teaching methods and teachers' evaluation also are factors of the creativity. Haqiqi (2007) also in his study investigated the role of educational evaluation in deepening the process of learning among elementary students in Tehran and indicated that there was a significant and meaningful relationship between the two groups' level of learning. That is, the experimental group have performed better than the controlled group. Sharifi (1999) studied teachers' performance in order to determine evaluation indicators. He showed that the applied indicators in evaluating job behavior, performing factors and standards of ethics are reasonable from teachers' and administrators' point of view. Shahi (1991) in his research studied teachers' opinions about education evaluation of teachers in order to offer a scientific and appropriate strategy in the process of educational evaluation within the country. Shahi found out that the most respondents have given the priority and importance respectively to personal traits, professional skills, proving feedback, paying attention to physical and environmental factors and teachers' organizational behavior. Thus, considering all these aspects is effectively required to boost teachers' efficiencies and competencies. As a result, a comprehensive and appropriate evaluation plan is the one which incorporates all these dimensions. Mirzaee *et al*, (2008) studied the common strategies through evaluation based on performance and showed that formative evaluation in science education would develop teaching and learning and expand qualitative information; it also promotes plans and creates a kind of discipline in educational activities. Egan *et al*, (2005) investigated the evaluation systems and the balance between the requirements and evaluation systems' feature. He found out that the more educational needs and evaluation systems are in balance, the more positively it will affect teachers' and students' education.

Therefore comparing the results of the present study with previous research findings indicates that in some

researches there is no significant relationship between how to do educational evaluation and students creativity, while some studies show this relationship.

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