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# The Effects of Synthetics Model of Teaching on Creative Writing of Students in the Last Year of Primary Education in Dezful

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**ABSTRACT:** This research is aimed at investigating the impact of synthetics model of teaching on creative writing of fifth grade boy in Dezful County. It started by this question that if synthetics model has any effect on students in the last year of elementary school. This is a semi-experimental research carried out with a pretest and two control and experiment groups. Statistical population included all fifth-grade boys in academic year of 2010-2011. Two groups of 25 students were selected by multistage cluster sampling and randomly placed in two groups of experimental and control group. The applied measuring tool was a six item scale provided by professors and experts of Persian literature to assess the level of creativity in composition lesson. First a pretest was taken. The experimental group then passed a 10 session synthetics training program. The control group was though taught traditionally. Comparing two groups revealed that experimental group showed higher creativity. There was a significant difference between them and the research hypothesis was verified.
**Keywords:** Syntectics Model of Teaching, Creativity, Composition

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## INTRODUCTION

One of the major tasks of educational system is to raise people with creative and critical thought having problem-solving capacity. In past, teaching was referred to as a way of communicating knowledge. Now this is though rejected by almost all scholars. Today, teachers should engage students with learnable concepts and teach them the method of understanding. Teachers are not required to merely rely on conveying facts and their knowledge (Shabani, 1998). According to educational experts, active method of teaching help students learn better and enjoy learning because they are engaged in the teaching process and know themselves responsible in this way (Gardner and jewler, 2000). Thus, as Areglado and Bradley believe, since current societies are in need of creative and thoughtful people, the necessity of a change in methods of teaching and using active methods is far more felt. Therefore, school programs and educational centers should be organized to transfer thought discipline to students so that they would involve in problems rather than accumulating facts. They would be equipped with thinking skill to face amazing changes of twenty first century and make wise decisions and solve confusing problems.

At elementary level in Iran, a lesson playing a critical role in nurturing students' power of creativity and innovation is Persian composition. Nasiri (1993) stated that this lesson had traditionally been in the pedagogical curriculum of all institutes around the world. This is aimed at reinforcing the power of reasoning, thinking, and accuracy and forcing students to properly think and listen and then simply express and write what they have seen and heard. This is initiated by making simple sentences to writing an article on a specific topic and acquiring the required skills. Some educational experts think that people of different age with different levels of education do not have sufficient ability to write. This is explicitly uncovered in writing composition in which students struggle to express their thoughts, feelings and emotions by a combination of words and sentences in order to communicate with others. Karimi (1990) and Elhampour (2005) indicated that composition does not have an important place at Iranian schools. According to Afshar (1993), educated population in Iran suffers from lack of literacy in Persian literature; Iranian young population cannot produce a piece of writing after a 12 year educational curriculum or even after taking BA Degree. It is not easy for them to write their mental thought. It is widely said that Persian prose is being broken down and such sweet language which is proud of poets and authers such as Saadi, Hafez, and Bayhaqi is in last ditch. Haddad Adel (1993) thinks of composition as a forgotten lesson. Elhampur (2005) states that one the main reason that composition is not successful is that there is no proper method of teaching. Applying a correct method is highly important and some consider a higher rank for it than the knowledge. Thus, finding the best method of teaching composition is critically important as well. This lesson and its educational method have been discussed less, and

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unfortunately no educational model has been developed to teach it (Saberirad, 2008).

Syntectics method is one of active and creativity oriented methods developed by Gordon et al. to be used at elementary level and high schools. Syntectics helps students detach from current situation in solving problems and achieve a fresh perspective by mental activities of problem solving. Syntectics model can be applied for different lessons such as sciences, art, social studies and particularly composition, which plays an important role in reinforcing creative writing and students' educational progression in other areas. According to Genter, Estes and Maintez, synthetics is a process expands the power of imagination and creative though. Alan and Richard (2006) believe that when students do not understand some concepts, or there is no hypothetical knowledge and when concepts are out of students' experience, the best strategy is using comparison or model (Aghazadeh, 2009).

Syntectics method of teaching which this research is focused on is the seventh representative of set of information processing model. As a learning model, it is a metaphorical way of teaching prompting students to create new and creative concepts. In this method, without previous models, students tend to gather, organize, analyze and synthesize information and discover various solutions by nurturing their sense of imagination and creativity (Joice et al., 2006). Gordon initiated metaphorical model of learning or synthetics from creative groups in industry. Employing such model means to nurture students to tend to cooperation with each other and solve problems and start designing products. Gordon (1961) developed the model of metaphorical thinking or synthetics to be applicable for teaching students (Aghazadeh, 2009).

There are two strategies for implementing synthetics:

**1.** To alienate familiarities: that is to turn old and familiar concepts into strange and alien ones or to create something totally new.

**2.** To familiarize aliens: that is to turn new concepts into meaningful and familiar ones.

These strategies are implemented in six steps:

**First step:** describing the current conditions

**Second step:** direct comparing

**Third step:** personal comparing

**Fourth step:** compact conflict

**Fifth step:** direct comparing

**Sixth step:** primary reviewing

Syntectics model is presented as a set of group activities as long as they can apply it individually or based on group collaboration. Although the model is aimed at developing and teaching creative thinking, it has accompanying effects of growing the sense of collaboration and study skills and intimacy among students. As a method of teaching, synthetics is typically used for creation of fresh insights about a particular subject or problem. It is for explaining or creating new concepts or alternative solutions resulting from clarification of problem .Bryant (2010) studied the effect of creative method of teaching on producing computer generated animation in secondary students. In this method, experimental group selected creative strategies of problem solving, considering various methods of problem solving and choosing optimum solutions. These strategies include open methods of learning, brainstorming and using metaphor and criticism. Results showed that creative strategies have been more effective and resulted in animations with higher quality. Sak and Oz (2010) investigated the effect of creative teaching on creative thinking in social studies lesson of high school students. The scores of control and experimental scores showed that creative teaching has a significant effect on improving poetry and storytelling of students. Dorin and Korb (2009) concluded that in traditional method of teaching, student could not leverage what they had learnt in their routine life. The level of misunderstanding had been high and more that 90 percent of students graduated from high school did not have scientific literacy and even the most important educational goals had not been achieved. Mualem believes that secondary school students cannot use their knowledge to explain and anticipate phenomenon and are incapable of solving new problems. This is a result based on this fact that class teaching is lack of qualified strategies required for reasoning it. Paltasingh (2008) studied the effect of synthetics model on development of students' creativity in biological sciences lesson in Banpour, India. Results revealed that the mean scores of students' creativity learnt based on synthetics model was higher than what control group had been taught by traditional methods. Peny studied the effect of synthetics model on creativity, educational progression, and students' motivation for success. This research, done in elementary schools of Bhnbanes, India, indicated that synthetics model of teaching have been effective in creative thinking and educational progression of students. Meador checked the effect of synthetics model on development of creativity

and verbal skills in 107 kindergarten students in age mean of 68.5 month. Findings suggest that synthetics model had been positively effective in creativity scores. No significant difference was though observed between two groups of control and experimental. Ahmadi et al. (2011) studied the effect of synthetics model on the level of first grade secondary students' knowledge, skill, and insight. They concluded that educational development of students educated by synthetics model was higher than control group under traditional method. Results also revealed that teaching life skills by synthetics method has positive effect on students' insights, knowledge and skills. Madahi and Khalatbari (2010) researched on the impact of three methods of brainstorming, synthetics and deductive reasoning on the creativity level of girl students of secondary schools in Rasht. Results suggested that the methods of brainstorming and synthetics had high influence over students' creativity. Mirshamshiri (2005) studied the effect of synthetics on performance of fourth grade elementary school students in composition lesson. Results were indicators of the significant effect of synthetics on creative writing of experimental group comparing with control group.

As mentioned before, this research is aimed at studying the effect of synthetics as an active method of teaching on fifth graders' creative writing. This is important because it allows applying synthetics model as an appropriate strategy in teaching composition and helping teachers teach writing techniques, power of writing and creative writing.

General Purpose: to study the effect of synthetics model on creative writing in composition for fifth grade boys in Dezful.

Research Hypothesis**:** synthetics model of teaching buildups creativity in writing composition for fifth grade boys.

## MATERIAL AND METHODS

This paper is a semi-experimental research. It is of pre and posttest kind in which synthetics model of teaching is considered as a dependent variable and creative writing is a dependent variable. Control and experimental groups were randomly selected and a pretest was taken prior to applying experimental intervention. Syntectics model was then taught to experimental group (fifth grade boy) during a 10 week period to observe its effect on creative writing. Control group did not though achieve any teaching. When the period ended, a posttest was taken from both groups. Then, the difference between the scores of both was checked by statistical analysis of covariance.

**Statistical Population and Sampling Method**

Statistical population of this research is all fifth grade boys in Dezful in academic year of 2010-2011. Among elementary schools having more than two classes for fifth grade, one school was randomly selected as the research sample by clustering sampling. A composition topic was chosen for 50 students of each class as a pretest. One class was randomly selected as control and the other one as experimental group (twenty students in each class). Experimental group passed a 10 week training period of synthetics model of teaching and control group was traditionally taught. At the end, both groups were taken a posttest.

**Measuring Tool:** The method of gathering information was of field kind. A six item scale was used by three experts in Persian literature to gather the required data. Table two presents the evaluating scale of creativity. The maximum score was 18. The reliability value was estimated at 0.66 by Cronbach Alpha.

To implement this research, a pretest was initially taken. Having selected experimental and control groups, synthetics model and implementation process was taught in some sessions to the teacher of experimental group. These sessions contains subjects such as active models of teaching, benefits and effects of these models on students' education, familiarizing with synthetics model, and teaching how to develop and implement it in class by teacher. To in depth investigation and proper implementation of this model, teacher was provided with an educational package including some curriculums, books and materials to study). Teacher taught various topics of composition based on synthetics model. At the end, both control and experimental groups were taken a posttest. To evaluate the creativity and scoring students' papers during the stages of pre and posttest, three professional teachers in the area of Persian literature were employed. After collecting data, research hypothesis was analyzed by one-variable covariance.

**Research hypothesis:** syntactic model of teaching develops the score of creativity in composition writing in fifth grade students.

**Sample and Sampling Method:** Statistical population of this research is all fifth grade boys in Dezful in academic year of 2010-2011. Among elementary schools having more than two classes for fifth grade, one school was randomly selected

as the research sample by clustering sampling. A composition topic was chosen for 50 students of each class as a pretest. One class was randomly selected as control and the other one as experimental group (twenty students in each class). Experimental group passed a 10 week training period of synthetics model of teaching and control group was traditionally taught. At the end, both groups were taken a posttest.

**Table 1.** The general plan of research

| Groups | Random Selection | Pretest | Independent Variable | Posttest |
|---|---|---|---|---|
| **Experimental** | R | T1 | X | T2 |
| **Control** | R | T1 | - | T2 |

**Table 2.** Scale for evaluating creativity in composition writing

| Row | Items for Evaluating Creative Writing | Score |
|---|---|---|
| **1** | Primary Description of Subject | 3 |
| **2** | Direct Comparison | 3 |
| **3** | Personal Comparison | 3 |
| **4** | Compact Conflict | 3 |
| **5** | Direct Reviewing | 3 |
| **6** | Reviewing Tasks | 3 |

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## RESULTS

Table 2 presents descriptive parameters based on research groups. As seen in table 3, in pretest stage, mean and standard deviation of creative writing were estimated at 20.64 and 6.9 for experimental group and 22.73 and 4.18 for control group. In posttest stage, they were calculated at 30.84 and 2.17 for experimental group and 2.1 and 21.34 for control group. To test the hypothesis, mean value of both group in posttest was compared by analysis of covariance. Table 4 presents the findings of research hypothesis.

**Table 3.** Mean and standard deviation of creativity in composition of experimental and control groups in the stages of pre and posttest for fifth grade students

| Variable | Group | Number | Pretest | | posttest | |
|---|---|---|---|---|---|---|
| | | | Mean | Standard Deviation | Mean | Standard Deviation |
| **Creative Writing** | Experimental | 25 | 20.64 | 2.17 | 30.84 | 6.90 |
| | Control | 25 | 22.73 | 2.10 | 21.34 | 4.18 |

**Table 4.** Analysis results of covariance on posttest of control and experimental groups by controlling pretest

| Variable | Source of Changes | SS | DF | MS | F | Sig. | Eta | Power |
|---|---|---|---|---|---|---|---|---|
| **Creative Writing** | Pretest | 192.36 | 1 | 192.36 | 6.64 | 0.013 | 0.12 | 0.71 |
| | Group | 1333.89 | 1 | 1333.89 | 46.1 | 0.001 | 0.49 | 1 |
| | Error | 1388.88 | 48 | 28.93 | | | | |

As seen in table 4, in pretest, there is a significant difference between control and experimental groups in creative writing of fifth grade students ($F = 46.1$; $p<0.001$). Thus, the research hypothesis is confirmed. In other words, regarding mean value for experimental group comparing with mean

value for control group in posttest, using synthetics model has increased the score of creativity in writing composition. Although there is a significant difference between two groups (F = 6.64, p<0.013), regarding Eta square in this stage, it can be said that only 12 percent of changes in scores of pretest is associated with the effect of the teaching model. But in posttest and when the effect of pretest and mean values are adjusted, the difference is higher and the effect (Eta square) reaching to 0.49 or 49 percent of individual differences in scores of posttest depends on the effect of synthetics model. Statistical power is 1; this means that type-two error is possible.

**DISCUSSION**

Results show that research hypothesis is confirmed and synthetics model may play a part in creativity buildup for fifth grade students. In other words, inferential findings indicate that there is a significant difference between creativity scores in both control and experimental group. As seen in tables 3 and 4, the mean scores for creativity of experimental and control groups in pretest are not significantly different. After teaching the model and in posttest stage, creativity score for experimental group was higher than control group. Applying synthetics model is probably the reason of higher level of creative writing in control group. On the other hand, scores of control group in posttest are lower than experimental group. The scores of creative writing by traditional method of teaching are reduced. This is associated with the method of teaching and management technique in class. These findings agree with results of research done by Madahi and Khalatbari (2010), Sharifi and Davari (2009), Momeni and Oji Nezhad (2010), Oji Nezhad (2006), Mirshamshiri (2005), Barat Dasjerdi (2002) and Rahimi (1998). Although researchers have evaluated the rate of creativity by Torrance test, in this research, among six steps of synthetics (especially using comparisons and metaphors), creativity was measured in writing composition. As Gordon believes, creativity comes out of these comparisons and metaphors. In other words, school environment, class, and teacher play an important role in developing creative thinking. Criticizing traditional education system. Therefore, nurturing creative teachers is important to nurture creative students. It seems that selecting an appropriate model is so important and Torrance has indirectly related to it. To train creativity, general changes in the method of teaching are of radical subjects and educational system should take important steps. In addition to teaching converge thinking; teachers are interested in teaching diverging thinking. They may ask students to express their own solutions and beliefs which are strange and unusual, do not have fear to tell them and do not merely rely on traditional methods. To achieve this, teachers should not create a tough and boring class and develop the sense of confidence, innovation, dare to write, expressing unusual thoughts, etc. in students and help them reinforce their creativity in writing composition.

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