

Synectics Teaching Effect on the Academic Performance of Students' Composition among Male Fifth Grade Students in Dezful City

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ABSTRACT: This study has examined the Synaptic teaching effect on the academic performance of students' composition among male fifth grade students in Dezful city. The study statistical population is comprised of Elementary fifth grade students who were studying in 89-90. The sample consisted of 50 subjects who were randomly selected and lucky draw was divided into two equal groups, experimental and control. In this study, quasi-experimental method and pre-test - post-test with control group were used. Before running the training, pre-test of composition was administered for both groups, and then using synaptic teaching methods, test group were trained during 10 sessions of 45 minutes. During the period, the control group was taught by traditional methods. To evaluate the composition of students, a 28-point scale developed by the researchers that was prepared by experts in the field of Persian language and literature to evaluate the essay lesson. In order to analyse the data, analysis of covariance was used. Findings from the study showed that synaptic training increases academic performance in the course of writing the essay and this hypothesis was confirmed.

Keywords: Synaptic Methods, Essay, Academic Performance

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INTRODUCTION

Writing is an important element in different cultures which has a special place. By writing, information will transfer from one person to another, from one community to another community and from one country to another country and eventually it will be used. So training how to write that is summarized to composition, is very important in the educational systems of the world. Nasiri [1] mentioned that composition has been as a main course in the curricula of schools from the past till now. But Karimi et.al. [2] show that Persian composition lesson doesn't have the optimal position in the schools of our country [3]. According to Elhampour research, one of the causes for failure of composition course is not having the proper method of teaching. Education experts believe that different teaching techniques have different effects on students [4]. Therefore, they consider the use of appropriate teaching methods more important than knowledge of that lesson. The fact is that so far the teachers imitate each other according to personal taste and traditionally and they have less benefited a coherent curriculum, so there has been less discussion about this course and its instructional practices. Generally education professionals divide teaching methods into two categories of passive and active. Method in which students are engaged actively during class and the teacher guides teaching process in role of a facilitator is called active method and method in which the teacher just conveys data to students is called passive method. One of the active teaching methods that can help students and teachers in teaching composition is synectics teaching method. Synectics is an interesting approach created by William Gordon et al., in order to promote inventions and increasing creation. The most important principle in synectics is using analogies. Synectics method allows us to look at the phenomena from a new perspective and find another way to express ourselves and engage in problem solving. Synectics helps us to create new ways of thinking about issues. When the previous solutions do not work properly, this pattern will arise. It means we should give people the opportunity of innovative new ways for objects and tools. William Gordon calls this DE familiarization, it means person tries to apply a new perspective to look at familiar things [4]. In fact it is a way for learners to disrupt this order in activities with solving problems and create new ways to solve problems. The basic objective of this pattern is creating beliefs, new ideas and boosting creativity in learners. Creativity in this pattern is formed by metaphor activity. Communication metaphor is made of similarity, comparing one thing or an idea with something or other idea, by using one instead of another [5]. Synectics as a teaching model can serve in topics such as creative writing, exploring social and discipline problems, solving problems in relationship with social issues, relationships between people and the conflicts between them, creating a pattern or product, expanding the prospects for a concept [6]. Regarding Persian language and literature is closely related to creating novel ideas; this method can be used to teach composition and creative writing. According to this method, by talking about and discussing an essay topic, comparing, expressing their emotion and ... students can get creative thinking and to foster emotions (Foundations of curriculum of Persian language courses). Several studies have been conducted in this area.

Chehrazy studied the effect of probe, synectics and lecture on academic performance of high school students in the city of Ahvaz. Results showed that students who received training in biology course by synectics had much better academic performance comparing with the group that had passed this course by lecture. Continuous evaluation results and examining between groups that were training by probe and synectics show that students of synectics group have had better academic performance than students of probe group. Bani Aghil studied the effectiveness of synectics teaching methods comparing the traditional methods in two groups by experimental method. One group was training by synectics and the other group was training by traditional method in science course. After three weeks educational advancement of the two groups were compared. Results showed that the group of synectics teaching method had higher achievement scores and retention and remembering rates of students were higher in this group. Barat Dastjerdi examined the effect of synectics on academic performance in the course of Social Education in elementary school and concluded that synectics teaching methods have a positive impact on students' academic performance. Moradinejad examined the effect of synectics teaching method on achievement of composition course in fifth grade elementary school students in Tehran and concluded that synectics teaching method has a positive impact on academic achievement in composition course. Sadat Hosseini and Memarian examined the effect of synectics teaching method on teaching the concept of pediatric palliative care on creative writing and academic performance of nursing students. Comparing scores of two groups showed that using synectics teaching method has increased creative writing and academic performance of students. Abdollah Mirzaei et al. compared the effect of traditional and analogical teaching methods in learning abstract concepts in chemistry among the junior high school female students. Conclusions indicate positive effect of analogical teaching method on academic achievement and significantly increasing learning among learners. Ahmadi et al. [6] studied the effect of synectics teaching method on knowledge, skills and attitudes of students in the first year of secondary school in life skills course. The results showed that the level of students' achievement in experimental group that was trained by synectics teaching method was higher than the control group trained by traditional method. The results showed that teaching life skills by synectics teaching method has a positive impact on students' attitudes and knowledge and skills [7, 8, 9, and 10].

Chesler [11] studied the effect of synectics teaching method on creativity and academic achievement of fourth and fifth grade students in an elementary school in science course aiming assess the effect of synectics teaching method on students' creativity and abilities. The results indicate a positive impact of teaching synectics teaching method on understanding, recall, analyze and synthesize the content of the science course. Peny examined the effects of synectics teaching method on creativity, academic achievement and rising success of students. In this study, conducted using both experimental and control groups in elementary schools in India Bhnbanes the results showed that training by synectics teaching method is effective in improving student achievement. Palata Singh in a research entitled the effect of synectics teaching method on growth of creativity and academic performance of bioscience courses in India Banpur concluded that synectics teaching method has a positive effect on student's creativity and academic achievement [12].

Research objective: Studying the effects of synectics teaching method on academic performance of composition lesson among fifth grade elementary school students in Dezful city.

Research Hypothesis: training synectics teaching pattern increases academic performance in composition course among fifth grade students.

MATERIAL AND METHODS

Research statistical population was composed of fifth grade elementary school students in Dezful city who were studying in 1389-1390. Among the elementary schools that had more than two fifth grade classes, one elementary school was selected by cluster random method as a research sample. A total of 50 students were divided into two experimental groups and control groups randomly (25 patients in each group).

Quasi-experimental research was pretest - posttest with control group in which the synectics teaching method was considered as the independent variable and the academic performance of composition course was considered as dependent variable. Before applying experimental effort, a pre-test was conducted with the participants in the composition course, then the experimental group was trained 10 weeks by synectics teaching method and control groups were taught traditionally. In the end, post test was conducted for both groups. Three Persian literature teachers were asked to help in evaluating composition performance and Grading students' papers in the pre-test and post-test. To investigate the research hypothesis, a univariate covariance method was used to compare groups at post-test (with pre-test scores control).

Measuring Tools

A 28-point scale prepared by three experts of Persian literature was used to evaluate the students' composition and data collection. Grading scale and how to evaluate the essay is given in Table 1. The maximum score is 38 per sheet. Reliability was calculated by Cronbach's alpha 0.77.

Table 1. Evaluation scale of composition course in fifth grade

row	Article
1	Using all the senses to describe
2	Clear and effective messaging
3	Topic synchronization with style
4	The logical conclusion from the material
5	using personal ideas and experiences in composition
6	Freshness of thought in expression
7	Choosing better words in composition
8	Applying literary arrays
9	not to use stereotype words and phrases
10	The initial description of Topic
11	Direct analogy
12	Personal Analogy
13	Intense conflict
14	Direct reanalogy
15	Reviewing homework
16	Proper and non-repetitive use of verbs and other words
17	Clear and short sentences
18	The cleaning of composition worksheets and paragraphs border
19	Legible and elegant text and title
20	topic relation of composition sentences together
21	Logical relation of composition sentences
22	Observing the order and sequence of content (so that no part of the essay can be easily removed)
23	Fitness of plan with essay Topic
24	Considering standard language in composition
25	Correctly spelled words
26	Observing the punctuation marks
27	accordance of the verb with separate entity
28	Time proportion of composition verbs

RESULTS

Statistical descriptive indices for separate research groups are presented in Table 2.

Table 2. Mean and standard deviation of academic performance score for composition lessons of experimental and control groups in pre-test and post-test stages in fifth grade students

variable	group	N	Pre test		Post test	
			M	S	M	S
Academic performance in composition	experimental	25	57.15	8.1	68.74	5
	control	25	61.01	5.5	59.37	3.6

As can be seen in Table 2, in the pre-test stage mean score of academic performance in composition course for experimental group is 57.15 and for the control group it is 61.01. Also, in the post-test stage experimental group's mean is 68.75 and control group's mean is 59.37 and 2.1, which shows the performance of the experimental group also had an increase in post-test and it is greater than the control group. However, in order to test the research hypothesis means of the two groups have been compared using covariance analysis. The findings of this thesis are presented in Table 3.

Research Hypothesis: teaching synectics teaching method increases academic performance of composition course in fifth grade students.

Table 3. Results of univariate covariance analysis (Ancova) on the mean of the post test of academic performance in composition course of experimental and control groups' students with pretest control.

Variable	Source of Changes	SS	d.f	MS	F	Sig.	Eta-squared	Statistical power
Academic performance in composition course	Pretest	408.22	1	408.22	10.07	0.003	0.17	0.88
	Group	1506.52	1	1506.52	37.16	0.001	0.43	1
	Error	1945.8	48	40.53				

As seen in Table 3 there are significant differences in the composition lessons between control group and experimental group in terms of academic performance score, ($F=37.16$, the significance level $p<0.001$). Thus the research hypothesis of 0.01 is confirmed. Comparing the mean of the experimental group and the mean of control group at post-test, teaching composition writing by synectics teaching method, results in increasing academic performance of students in the experimental group. However, there are significant differences in pretest between

the means. But in the post-test stage differences equal to 0.43. It means 43% of the individual differences in post test scores are related to the impact of teaching synectics teaching method. Statistical power is equal to 1; it means there is no possibility of Type II error.

DISCUSSION

This study was conducted to evaluate the effectiveness of the synectics teaching method on academic performance of composition course in fifth grade students. The results indicate a positive impact on the academic performance of students. The results are consistent with research of Chesler [11]. It seems this teaching method have been able to be effective in improving students' writing composition. Perhaps if teachers are willing to use this method in teaching they can achieve the learning objectives of this lesson including comprehension and raising the issue, a new approach to the subject, creative writing, simple writing, appearance of the sheet, a logical and coherent plan, grammatical rules as well as the emotional power of children, nurturing faculty of reasoning, thinking, well-seeing, well-hearing and finally the good writing and writing the concepts. Synectics teaching method for having a six-step program provides appropriate program for teachers to save them from teaching according to taste, imitation and in some cases from aimless teaching of composition course [7, 9].

In implementation of this method, the teacher encourages students to describe the current situation and leads them to do a direct, personal and contradictory comparison to achieve the concept and s/he also encourages students to develop new and innovative content. While in traditional method the student is inactive and course materials will be always memorized. Because students are not engaged with the topic, they try to use repetitive and stereotyped phrases in their writings; therefore, there is not a remarkable progress in terms of achieving the goals of the course. In this study synectics teaching method has had a positive effect on students' knowledge, skills, attitude and overall academic performance.

Finally, the obtained results indicate that if an important course like Persian composition has a statutory curriculum, students you have no mental confusion in writing up their daily experiences and their mental storages and according to an appropriate and step by step program they can prepare themselves for writing. Teachers can ask them to take a fresh and innovative way to easily write and communicate with others; additionally good writing can also be an important factor in the academic achievement of students in other courses. In such a way that Saberi Rad and Tabatabai [4] argue that students who enjoy good writing skills have good academic progress conditions too. In other words, there is a close relationship between reading and writing skills, and this factor causes students' academic growth.

It is suggested officials and planners of education pay serious attention to synectics teaching method for teachers as an active teaching method and as this research has shown this method can improve the academic performance of students in the composition course. It also recommended that elementary school teachers use this method as a cohesive plan particularly in teaching composition and other courses of this level.

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