Impact of creative problem solving training on writing skills of students with learning disabilities

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Abstract: This research was carried out to investigate the impact of creative problem-solving training on written skill of male students in fifth grade that have learning disabilities. Methods of test and pre-test - post-test control group were used. Therefore, using a multistage sampling procedure and the criteria for entry into the study through fifth grade students with learning disabilities, speech writing, Isfahan, randomly selected 30 individuals participated in the study. For data collection, informal tests confirmed the reliability and validity were used. Covariance analysis of survey data using statistical methods and analyzed using software SPSS18 is done. Findings from this study showed that between the control and experimental groups of five sub-skills test and written expression (descriptions, Memoir, shorthand, writing fiction, writing), there is a significant difference (P<0.05). Thus it can be concluded that the teaching of creative problem solving skills, written expression has an effect on students' performance and can improve the education of students with learning disability in written expression written expression can be used.

Keywords: creative problem solving, written expression skills, learning disorder, disorder of written expression, elementary school students

Introduction:

Despite the many differences that people have to learn, some people have trouble in learning and training. This is a common problem in children 10 to 15 percent and has caught a lot of children (Ahmadi and Assadi, 1997), So much effort to learn and to learn about reading, writing and mathematics is the most fundamental and the most essential human needs, Psychology has prompted scientists to identify children who are weak in school learning other aspects of the school's strengths and weaknesses are overshadowed them. At present, various theories on the causes of learning disabilities in children, there is no problem with intelligence or members. Experts will discuss each factor and the rehabilitation and restoration programs are designed to help children (Milanifar, 2000). Classification of learning disabilities, are often classified into three major categories of professionals and psychologists have noted abnormalities include the following: 1) Read the problem 2) disruption of writing, 3) mathematics-related disorders (Kaplan; Sadouck, Grab, 2003, Nusratullahpour Afkari translation, 2003). Since the disruption of any of the items listed and their interaction with the early education can have consequences, as successive failures, poor self-concept, poor self-esteem and other psychological problems for the student and his parents to be, given the scope of the disturbances is vital. As noted, one of the classes, learning disorders, disorders related to writing. People with learning disabilities often lack a number of prerequisites and reason may have severe problems in communication and relationships. Their writings are full of spelling errors or punctuation error in the script is bad. The resulting entries are short, poorly organized and poorly terminology to express ideas (Birneh, 2002). According to Bernstein, 1958, children who begin school with the exclusion of language and writing, not only the content, concepts, language, spelling and written expression are difficult but they are generally thought of the advanced forms are subjective (Hall et al, 2000). According to linguists, language learning skills in thinking and writing curriculum is of particular importance. Because the mental processes and abstract thinking, language, and does not develop until a person can not be expected to think objectively speaking skills i.e. listening, speaking, reading and writing can be nurtured and strengthened (Ghasempour, 2002), on the other hand, using creative problem solving, innovative solutions and new ideas to solve the problem that comes to mind. Analytical thinking and creative problem solving techniques from the imaginative interweaves the

balance is thinking (Hosseini, 1999). Creative Problem Solving complete, accurate, and time-consuming, but the mind is given enough time to grow up and think about it, it will go up and the quality of ideas (Lamzdin, 1993). The ultimate goal of writing skills, creative writing process which is known as the (composition) or (skills, written expression) is called. (Adamzadeh, 2001; Montague, 1995). Creative problem solving as well as the revision of the content of the curriculum, particularly in language learning, evidence that societies need to develop students' creative behavior are (Zandi, 2006). Language disorders, cognitive, visual and motor space systems and the evolution of language can affect the species. Moreover causes cognitive, linguistic nerves - psychological, it is clear that teaching writing is on the development of children. Why are so many children that problems resulting from the lack of teacher control over the territory (mush and Barkly, 1996). Also, since research in various areas of written expression and creative problem solving is done, Such as Noor Mohammadi (1996) in research on the effectiveness of computerized cognitive and deficient draft writing sample of children examined and found that cognitive and computer paper has a positive effect on the qualitative and quantitative development. Sexton, Harris, Graham (1998) model of self-regulation changes on 6 students 10 to 12 years with learning disabilities used in writing and received training on writing practice, students there were significant effects. Anglert (1991), Adamzadeh (2001), the research found that cognitive training in writing students with learning disabilities in writing has significant influence. Salsabeel (2009) search the whole creative vision curriculum design and content developed in the early Persian period get writing opportunities based on imagination, brainstorming, have been considered as very low. Moradi, M. (2010) found in a study of working memory training methods to improve writing, students organize a disorder of written expression, and there were significant effects. Also, Faramarzi, Karamalian, Nasrallahi (2010) found that training in research-based approach to linguistic experience on speech writing skills of the students there were significant effects. Momeni Mahmuei, Oji Nezhad (2010) found that the use of research in teaching pattern making on developing students' creative written expression disorder effectively. Curran (2007) found that language experience approach in applying this approach has improved students' writing skills are to write. On this basis, and given the above background, creative problem solving can be deduced that the teaching of writing skills of students with learning disabilities in written expression has a positive effect,

in this study, the question of whether creative problem solving training on writing skills of students with learning disabilities in primary influences?

Research Method:

In this study, test and pre-test - post-test control group was used. One of the prestigious projects in pilot studies (Sarmad, Bazargan and Hijazi, 2007). Diagram layout is as follows:

Diagram of pre-test - post-test control group and selection

Experimental Group	R	T1	X	T2
Control Group	R	T1	----	T2

Community sample: the entire population of students with learning disabilities in written expression in primary school in Isfahan has constituted 91-92. Using a multistage sampling procedure, the sample was selected. First sampling cluster of Education District 1 selected and then the school district, the elementary school was selected from among students with learning disabilities in written expression of the two schools fifth grade students in 30 primary disorder of written expression, according to the method, and the teacher was and according to randomly assigned to experimental and control groups. Entry criteria sample teachers reported serious problems in essay assignments, having more than average intelligence. Criteria such as the absence of the second session educational, mental illness and physical suffering to remove the student from the experimental group. In order to protect the moral rights of the parent, as well as research students conduct their research grants.

Measuring instruments: for data collection and analysis Researcher tests were used to compose task. The five sub-skills test described in written expression skills, memory, writing, shorthand, writing fiction and writing have been checked. Overall reliability test using Cronbach's Alpha 0.89 was calculated. The Cronbach's alpha for subscales describing skills 0.81, Memoir 0.82, shorthand and Fiction 0.78 and 0.80, writing 0.76, and its validity was confirmed by experts. Methods: After determining research samples from 30 patients, students with ADHD express written before the intervention of the independent variable (Education solving creative problems) in all sub skills with the written pre-test was performed. In both control and experimental groups during two 60-minute sessions and one 30-minute session before the tests described in the five sub-skills, memory, writing, summary writing, story writing and writing took place. The sample group were randomly divided into two groups, Then the experimental group students for

creative problem solving in an eight-session intervention, were exposed as follows:

First session: understanding the actions and messages hidden within the events, experiences, lessons, events, and try to understand the events described in conjunction repetitive and stereotyped they are not taught the technique of free association.

The second and third sessions: Development of memory, transfer values, strengthening the power of imagination, mind mapping and modeling techniques that were taught.

The fourth and fifth sessions: the discovery of the body of the text line text while paying a short form to save time foster dialogue, heard and seen, as briefly discussed and exchanged their experiences with the technique 7 * 7 were taught.

The sixth and seventh sessions: learning objectives friendly writing style, how to express opinions, suggestions, thanks technique that was taught to think of writing portfolios.

Session VIII: The details, understanding the relationship between parts and pieces of paper with all the techniques taught in Cranford.

During 8 sessions on solving creative problems control the curriculum, fifth grade during the course (written or composed) by their teacher trained and procedures common to the writing exercise books, writing or reading about issues related to books read the payments. Upon completion of creative problem solving training session of 8 basic tests again repeated in the next test.

Data analysis methods for data analysis and inference methods were applied. According to the type of research design with hypotheses achieved with the use of analysis of covariance was used SPSS18 software.

Results: As mentioned, the most important question was monitoring the intervention to solve creative problems on the craft of writing, students with learning disabilities, speech writing primary influences?

Table 1: Mean values, standard deviation scores of the students' writing skills

S.D.		Average		Group
Post test	Pre test	Post test	Pre test	
7.70405	3.55501	52.7333	26.7333	Experimental
8.18070	8.43857	24.7333	25.9333	Control

As Table 1 shows, out of control and experimental groups at pre-test writing skills are almost equal, while the mean score in the test group than the control group.

Table 2: Results of covariance analysis of creative problem solving training on writing skills of students

Statistical power	Eta squared	Significance level	F Ratio	Mean square	df	Total Squares	Sources of change
0.057	0.002	0.804	0.063	4.095	1	4.095	Pre test
1	0.769	0.000	89.948	5875.836	1	5875.836	Group
-	-	-	-	65.235	27	1763.772	Error
-	-	-	-	-	30	52656	Total

According to the results in Table 2, F observed is 89.948, which is considered a significant difference between experimental groups and control group membership shows ($P<0.05$). So, we can say that teaching creative problem solving skills in written expression has a positive effect on students and the eta squared, it can be said that 76% of the variation have major role in creative problem solving is the result of effective teaching.

Table 3: Mean values of the standard deviation of pre-test and post-test scores of students writing skills in retail

S.D.		Average		Group	Variable
Pre test	Post test	Pre test	Post test		
3.22490	1.79151	11.6	4.2667	experiment	Memoir
2.06559	2.44560	4.5333	5.1333	Control	
2.47463	2.38647	10.8667	4.5333	experiment	Shorthand
2.49762	2.66905	4.3333	4.5333	Control	
2.98727	1.95911	9.2667	5.1333	experiment	Fiction
2.72029	2.89992	4.4	4.5333	Control	
2.41030	1.83095	9.6667	4.9333	experiment	Writing
2.61315	2.54858	5.4	5.2667	Control	
2.66369	1.06010	11.3333	7.8667	experiment	Description
2.58567	2.87518	7.4	6.4667	Control	

As Table 3 shows, the mean score in the control group pretest little difference in the sub-skills of writing, however, the experimental groups mean score on the posttest than the pretest difference is much higher.

Table 4: Results of covariance analysis of learning to solve creative problems on the final score in the experimental group and control five sub-skills of writing

Test power	Squares	Significance level	F Ratio	Mean square	df	Total Squares	Sources of changes	Retail Skills
0.286	0.072	0.16	2.086	14.729	1	14.729	Pre test	Memoir
1	0.671	0.000	55.135	389.220	1	389.220	group	
0.005	0.002	0.829	0.048	0.305	1	0.305	Pre test	Shorthand
1	0.649	0.000	50.032	320.133	1	320.133	group	
0.817	0.246	0.006	8.829	56.316	1	56.316	Pre test	Fiction
0.997	0.467	0.000	23.680	151.040	1	151.04	group	
0.277	0.069	0.168	2.005	12.233	1	12.233	Pre test	Writing
0.996	0.463	0.000	23.295	142.103	1	142.103	group	
0.113	0.021	0.456	0.571	4.959	1	4.959	Pre test	Description
0.925	0.316	0.002	12.466	108.215	1	108.215	group	

According to the results in Table 4, F observed with regard to membership in a group, show a significant difference between experimental and control groups ($P<0.05$). Therefore, we can say, creative problem solving training on the final score of students writing skills in retail significant impact on the eta squared can say (Memoir 67%, 64% shorthand; 46% Fiction, 46% writing , 31% described), creative problem solving training on the changes caused by the impact of the sub-skills of writing.

Conclusion: In this study, effectiveness of training, creative problem solving skills in written expression written expression disorder in boys is investigated. The purpose of this investigation was to study the effectiveness of the techniques presented in the tutorial to solve creative problems on the craft of writing, students with learning disabilities, speech writing fifth grade primary school in the academic year 91-92. Using the Research Project pretest and posttest control group and the use of analysis of covariance, the results showed that all the sub-skills of writing, significant differences between experimental and control groups in terms of increasing the pre-test to post-test there and these differences were all in the ($p<0.05$) was significant. The creative problem-solving skills training that reflect the effectiveness of written expression. The results of this study are in agreement with the findings of other researchers. For example, Niazi, Kadivar and Yaryari study (2008), Anglert (1991), Adam Zadeh (2001), Vaynstein and Hume (1998), Hall (1999), Saif and Mesr Abadi (2003) found that cognitive training enhanced impairment country's schoolchildren are writing. Sexton and colleagues (1998) meta-cognitive learning strategies have been effective in improving students' written expression and believe that this is a generalization of the power train and students can apply this technique in other writings. Labeau, Ekel, Montero (2002) also showed that the method of action research on children 5-11 years of experience in language-based approach has significant influence on the scope of words to describe the ability of narrating Gray and Gray, students have had. Ahmadi Vamin Moghadasi (2001), Effects of social skills training in eight skills in written expression of students and found that students in education Essay scores are enhanced. Hamayan (1989), Voovor (2002) Memoir of the general approaches and specific language experience approach to the effective development of writing skills in a second language is considered. It is consistent with Burneh research study (2002). He writes a description of his progress on an action research study examined the conversation and w rite a descriptive paragraph using this method and found that the students are taller. Montague (1995) in their study of the language experience approach improves the performance of English learners in the production process, such as text editing and production of meaning is known. Research of Zakariaee results and others (2009) showed that in the description and presentation tools enjoying the experience have visual, auditory and speech skills of written expression. The results obtained in separate studies Souansoun and a colleague (1996) in relation to the impact of organizational strategy on improving writing skills is consistent. Creativity and innovation, creative problem solving training is consistent with accretion scientific research results with Shahany Yeulagh, Haji Yakhchali, Haghighi, Behroozi.

(2009), Martinson (1993), Nistram (1997), Basadvr (1997), Broufi (1998), Basadour (2004), Ditaine and Chander (2004), Frester anh Hooy (2007), Cunningham and Mac Gregory (2008), Elwood, Hamlien and Martin (2008), Hyising Ma (2009). On the other hand and according Yalkyn et al (2006) Creative Problem Solving training, using techniques that are effective in developing students' scientific thinking. In addition, this study also has limitations in the generalizability of the results should be cautious, despite the limitations of the sample and measuring devices and the results training, creative problem solving skills in written expression can be said to affect students and it is recommended to teachers and educators. In addition, authorities also develop education and training programs can be tailored to students' textbooks, teaching creative problem solving is part of the training program. This question and answers, education, idea generation conceptual foundations be considered in teaching coaches training requirements as well as written expression, reading comprehension, increase vocabulary, motivation, self-esteem respected books on the teaching of composition (expressed written) as a main course for teaching students to be considered.

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