



THE EFFECTIVENESS OF PROBLEM-SOLVING SKILLS ON ACADEMIC SELF- CONCEPT IN STUDENTS WITH LEARNING DISABILITIES

Soghra Mosadegh Firozabadi*

Abstract

Objective: *Paying due attention to meta-cognitive skills usually enhances academic performance, and will bring about stable and enduring learning outcomes. Hence, the current research seeks to study the effectiveness of problem-solving skill training in improving the concept of self-education and consequently in the academic achievement of the students with learning disabilities. **Methods:** The research enjoys a quasi-experimental design for studying 30 students with learning disabilities, split into a control and an experiment group. Stratified random sampling was employed to select the participants. The instrument for collecting data was Delavar's test for the concept of self-education, and the data was analyzed through descriptive and inferential statistics, including One-way ANOVA by SPSS21 software. **Findings:** Regarding the effectiveness of problem solving skill on academic achievements, it was revealed that this skill helps the students with learning disabilities, and improves their self-educational efforts which will lead to their academic achievements. It is suggested that teaching this skill be on the educational curricula.*

Keywords: *Problem-solving Skill, academic self-concept, Academic Achievement, Learning Disabilities , Learning Disorders , meta-cognitive.*

*Educational Deputy of Farhangian university, Rasht, Guilan, iran



INTRODUCTION

It is unfortunate that nowadays the educational institutions concentrate their efforts [solely] on transferring the information and scientific facts (saadatmand



allow him. It implies that such students are capable of achievement, however, due to factors other than talent, they cannot make it, because he considers himself incapable of it .(Hosseini Dowlatabadi



Second Step: Theoretical explanations about the plan with practical exercises

Can you draw a figure to introduce the problem? Can you break the problem into two or more stages to find the unknown? Are there any principles, theorem or formula for solving the problem? Is it possible to put together an equation to solve the problems posed in a module? Is it there a way to manipulate or complete our drawing in order to solve the problems posed in the module?

Third Step: Put the theoretical explanations, along with the practical exercises and the problem data in a formula or in an equation. Do the operation attentively and, if necessary, use a principle, theorem or a formula and find an answer to the unknown.

Fourth Step: Theoretical explanation about the review or rethinking the problem along with practical exercises.

Take a look at the three previous steps. Did you thoroughly go through them? Did you heed all the stages for the problems with more than one unknown? Do the final answers stand the test? Could other answers be conceived to the problem?

Instrument

The instrument for determining the level of academic achievement was the final test results of the students and for determining the concept of academic self-concept Delavar's test for the concept of self-education (1372 Persian calendar corresponding to 1993) was employed. It's a test of forty questions which gives the subjects choices of "Totally Disagree", "Disagree", "Agree" and "Totally Agree". In order to test the research hypotheses, descriptive and inferential statistics were used and the data was analyzed by means of SPSS11 software.

Results

The research had two hypotheses. The first hypothesis held that giving the experiment group problem-solving skills trainings and depriving the control group of this opportunity will bring about significant difference in their academic achievements. It is worth noting that since the first hypothesis is biased, problems-solving skills has yielded positive effects on the students with learning disabilities.



Table 2. Data analysis, data mining t test, t

Group	mean	variance T	test T	critical T	A	d.f
Experiment	13 76	10/05	2/45	1/70	0/05	27
Control	11 34	3/98				

According to the second hypothesis, providing the experiment group with problem-solving trainings and keeping this opportunity from the control group will result in significantly different attitudes towards their academic abilities and there was significant statistical difference in the two averages.

Table 3. Data analysis, data mining t test, t

Group	mean	variance T	test T	critical T	A	d.f
Experiment	13 81	19 7	9 36	2/46	0/01	28
Control	11 45	5 43		1/70	0/05	

To test the first hypothesis, the posttest averages of the two groups were compared and the T test was run for the independent groups. Problem-solving skills training yielded positive effects on the self-education concept of the students with learning disabilities.

CONCLUSION

Various bodies of research have been conducted on the effectiveness of problem-solving skill training in students' academic achievement and also on the self-education concept of the students. The findings of the current research, regarding the effectiveness of problem-solving skill training on academic self-concept and achievement of students, are consistent with those of many researchers previously carried out.

For instance, some researches have been conducted on the effects of problem-solving skill training on social competency and compatibility and on reducing the abnormal behaviors, which denotes the positive role of small-group training of problem-solving skills on the improvement of the individual's performance in life and academic situations .(Saif



methods in academic self-concept and achievement, through findings consistent with those of the current research . (Ahmadi



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