

# Comparison Between Self-Regulation Strategies, Creative Thinking and Goal Orientation of Students with Normal Mathematic Disorder in Schools

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**Abstract** – The aim of this study was the comparison between the self-regulation strategies, creative thinking and goal orientation in children with mathematic disorder and normal. The research method in this study is causal comparative events. The study sample of research are the students of secondary school in five areas of Rey. 100 of them were selected by simple random sampling. The tools used in this study, a questionnaire goal orientation, self-report questionnaire was conducted on student learning and creative thinking. For data analysis, multivariate tests were used to compare variables between the two dyscalculia and normal groups and the results showed that the research hypothesis was approved. Between self-regulation strategies.

Creative thinking and goal orientation of students with dyscalculia in normal subjects there is a significant difference.

**Keywords** – Self-Regulation Strategies, Creative Thinking, Math Problems and Normal.

## I. INTRODUCTION

Mathematics disorder is a type of learning disability. Mathematics learning disorder is one of the educational problems causes frequent anxiety among parents and makes parents go education counseling centers. A large number of school students in mathematics are facing a serious problem. Mental disorders are classified on the basis of learning disabilities students that characterized by academic functioning with regard to chronological age and measured intelligence in the age-appropriate education, significantly are lower than expected. The difference is more than two standard deviations between achievement and IQ and learning disabilities in academic achievement or daily activities that involve reading, mathematics and writing, are significantly disrupted (America Psychological Association, 2000). Mathematics learning difficulties compared to other learning disorders, have not been fully investigated. Many experts believe that dyscalculia is linked with other learning disorders (Vahedi, 1390). Mathematics learning disability is the inability to perform arithmetic skills due to the intellectual capacity and training level of students. Lack of expected ability in math interfere with academic performance or daily activities. Mathematics disorder can be divided into four groups.

- A) Language skills (such as understanding mathematical terminology, understanding math concepts and convert them to symbols).
- B) Cognitive skills (such as knowledge, reading of numerical symbols or arithmetic signs and grouped

- figures).
- C) Mathematical skills (such as observance of the counting and learning math multiplication table.
- D) mindfulness skills (such as copying the correct figures, remembering figures) Sadvk 2007).

The basic symbols of mathematics learning disability is mathematical ability. Disruptions in mathematics, notably interference in academic achievement or daily activities require math skills, and reduce them. The disorder may cause a number of different skills (language, cognitive, mathematical accuracy) damaged. The prevalence of this disorder is estimated about 1 percent in the primary school children and may continue to older age and the disorder often appears during the first and second base (2003, Sadvk).

The girls are concerned more than the boys with meaningful writing down, supervising themselves and organizing the environment. One of the variables that seem to be having trouble in math disorder is goal orientation. The aim or goal-oriented theory of orientation, including a very useful theories in the field of research on motivation progress (Pintrich Vshank, 2002).

Math learning disability often clearly and simply does not occur, It can be a combination of the forms of which may be language problems, impaired binocular vision, memory problems or high anxiety and sequences also be included. Aware of the fact that mathematical understanding is actually created by each learner, in order to support this process should make it possible to experience crafts or assign a time for investigation, discussion about the correct response is irrelevant. It can be said that one of the causal factors in mathematics disorder that specialists emphasized is the majority of poor, improper or inadequate training, and improper coaches who did not benefit from adequate training and non-use of appropriate training or long frequent absences from school can be considered as agents for the inadequacy of learning. For teaching math concepts students need to take care of the infrastructure and the quality of mind (cognitive development structures). In other words, the student must be the fundamental basis and prerequisite for understanding mathematical concepts to be able to pay the argument, Otherwise, students learn the concepts for "parroting".

The factors affecting learning disorders:

1. **Educational factors** : The major part of these disorders is related to teaching the method. one's particular personality may be overlooked during



teaching. For example, a person who takes the intellectual visual direction, If the technique to be taught aural, this is where most of the energy spent in illustration, and the other part to refresh images for motivation and the result is learning disability and misunderstanding.

2. **Physiological factors** : Many experts believe that the major causes severe learning disabilities, brain damage, or minor damage to the central nervous system.
3. **Genetic factors**, Specialists such as " Wa Chorus" and " Wolf "have found inherited family patterns in their study. They also studied the identical twins and family history of different statistical samples and have concluded that genetics and genetic disorders causes learning arithmetic (mathematics) disorders.
4. **Biochemical factors**, In this regard, we can say that the various metabolic disorders influence learning disorders in adolescence .
5. The **causes of maternal**, Some scholars studies' show that in the mismatch of mother's blood type with the fetus and disorders in internal secretion of mother during fetal nutrition, exposure to X-rays, especially sex determination and side effects of prescription drugs in this period also can be effective in children learning disorders.
6. **factors associated with abnormal birth**: Almost all babies who are born less than nine months of age, or if they are suffering from low birth weight, or

unusual items such as the birth of twins, faces th learning or verbal disabilities .

7. There are some factors after birth that affect learning disability such as the lead poisoning, nutritional deficiencies like lack of mother's milk after birth and other health and environmental deprivation.

**Assumptions:**

- There is a significant positive relationship between self-regulation strategies and creative thinking in students with dyscalculia
- Orientation aimed at students with dyscalculia is less compared to normal children.

**The findings:**

**Table 1.** Findings

	Statistics	Creative Thinking
Self-regulation strategies	Pearson correlation coefficient	.848
	Significance level	.000
	number of samples	100

According to the results of above table, and the given significant level of error for a confidence level of 99/0 test is less than 01/0,so we can say that the hypothesis is confirmed. And there is a significant positive relationship between self-regulation strategies with creative thinking.

**Table 2.** Data Analysis Based on multivariate analysis of variance Manoa

Source Change	Variable Dependent	Sum of squares	Degree freedom	Mean Square	F	P
The control Group	Strategies Self-regulatory	890.360	1	890.360	2600.536	>.000
	Creative Thinking	9050.060	1	9050.060	948.728	0000
	The goal orientation	7082.724	1	7082.724	2309.639	0000
The Evidence Group	Variable Dependent	4.300	1	4.300	8.726	0000
	Strategies Self-regulatory	42.360	1	42.360	4.366	.001
	Creative Thinking	6.624	1	6.624	5.090	0000

As Table 2 shows among the variables such as self-regulation strategies, creative thinking, goal orientation. There is a significant difference among mean values of self-regulation strategies, creative thinking, goal orientation between the two groups of students with mathematics disorder compared with normal children. So we can say that the and second first hypothesis are confirmed. As the results seen significant level of .05 indicates equality of variances test error and the variances are equal. All significant levels of usability testing allows multivariate analysis of variance. The results show that there is a significant difference in at least one of the dependent variables of the studied groups. The difference between groups was totally significant with respect to the dependent variables. The percentage of variance showed that the

differences between groups is the effect of the dependent variable.

**II. CONCLUSION**

According to the results, the significant level of equality of variances test shows error 50/0 and the variances are equal. And as was seen in the tables all significant levels of usability testing permits multivariate analysis of variance. The results show that that there is a significant difference in at least one of the dependent variables of the studied groups. The difference between groups was totally significant with respect to the dependent variables. Math learning disorders due to the factors mentioned above were biochemical or genetic origin or due to involuntary factors. But educational

factors are responsible for the bulk of these disorders, Ignoring linguistics theology and a range of characters or personality types can also cause disruptions to students but the new guidelines with respect to management information and analysis and training, and even bio-defined can minimize disorders related to learning math.

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