

## The Effectiveness Of Educational Support For Academic Self-regulation Of Primary School Students In Arjan

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### Abstract:

**Objective:** The main purpose of this study was to investigate the effect of educational support on the academic self-regulation of elementary students. 99 were studying. Due to the quasi-experimental nature of the study, 50 people in two 25-member class groups (experimental and control) of female students and colleges in the center of Arjan district were selected using cluster sampling method. The control group was sent before and after the test and received the answer. Data analysis method was inferential statistics analysis by default analysis of variance homogeneity, ANOVA univariate covariance, Mancova multivariate analysis (using SPSS software) and in descriptive statistics, frequency, graph, tables, mean and standard deviation were used.

**Findings:** The results of data analysis showed that optimal educational support training, academic self-regulation in general and has a

positive effect on metacognitive strategy and three components of memory, purposefulness and organization of meanings.

**Keywords:** educational support, academic self-regulation, cognitive strategy, metacognitive

### Introduction:

Today's complex world needs complex manpower. In addition to performing the usual tasks, they have the ability to think complexly and solve new problems and anticipate appropriate solutions (Clark 2008). Such learners are usually active in the learning process. They take responsibility for their own learning by using cognitive and metacognitive strategies to further guide and control their learning process. The constructivist approach in recent decades has led to the development and presentation of several educational design models, most of which are emphasized in the educational strategy called support. Support is an educational approach that occurs based on the interaction and transfer of knowledge between child and adult.

### Expressing the importance of the issue:

Nowadays, academic self-regulation has become one of the main axes in the field of education and training.

Academic self-regulation has an effect on academic achievement and knowledge level.

Self-regulation education is a tool for how students use study tactics and cognitive regulation strategies. Many learning problems in students are due to lack of cognitive and metacognitive skills in them. Research has shown that the application of cognitive and metacognitive strategies leads to self-regulation. It was observed between the experimental and control groups. Learners of cognitive, motivational, and behavioral self-regulation in the learning process actively participate in learning. (Zimmerman, 1986)

Academic self-regulation is one of the categories that pays attention to the role of the individual in learning and includes the strategies that students use to regulate self-knowledge (Alfred Dennis-Gramopadhi, 2019). Self-regulation is not a measure of mental intelligence that can not be changed from this particular point in life, but an individual trait that has a genetic basis, but the learner learns self-regulation through experience (Pantrich 2000).

Therefore, according to the above experts, self-regulation is acquired and it is necessary to be taught from childhood, which is one of the most important ways of self-regulation training.

On the other hand, the teaching strategy of educational support provides individual support based on the approximate growth area of the learner (Chang Sang and Chen, 2000). In teaching with the method of individual support with more knowledge, it provides supports or supports to facilitate the learner's progress. Supports facilitate the student's ability to build on previous knowledge and internalize new information. Supporters can use support technology to help students learn both mental and abstract subjects in practical situations. The activities provided in support are only slightly higher than the learner can do alone (Elson & Pratt). , 2000).

### **Literature and research:**

One of the most important ways to cultivate academic self-regulation is to rely on ways of thinking instead of learning (Ayatollah Motahhari also emphasized). And take responsibility and consequently pursue more of what needs to be learned. Supports can include hints, clues, incomplete solutions, thinking aloud, or even direct instruction. Sometimes asking questions is also a form of support. In order to learn the basics of the river, we must lower the pillars so that only the learner can reach self-strategy. In fact, the best connection that can be made between support and self-regulation is that support is a practice of self-regulation, and the end of educational support can be the beginning of academic self-regulation.

The goal of the teacher is to help the student through educational activities to help him or her become an independent learner (Hartman 2000). According to observational research, parents and educators learn the lessons of the early years with the help of supports and creating familiar situations for children.

### **Literature and research:**

Past research shows that there are several factors that can play a role in academic self-regulation, one of the most important of which is support.

Ismaili (98) in a study entitled The effectiveness of life skills training on students' self-regulation and academic self-efficacy concluded that Life skills training increased students' self-regulation. Also, based on the results, life skills training increased students' self-efficacy. Therefore, it seems that life skills training can improve students' self-regulation and provide effective techniques to increase self-efficacy.

Arefi (99) in a study as using educational support strategies and determining its effectiveness on students' learning ability and motivation showed that The lesson plan based on educational support strategies has an effect on learning and motivation for progress, in a way that has led to increased learning and motivation of students.

Anavarbaakan (2020) in a study called the effect of learners' experience by transferring from elementary school to high school in the field of self-regulated learning and motivation concluded that students who are more self-regulated enjoy the school, are more involved in the learning process and are more successful Trends in secondary education are also successful, while high school students lack traditional resources, learning skills, motivation, and self-regulation. The results showed that students have a successful transition, especially when they are supported by parents and teachers (support)

Afkari (95) in a study entitled The effect of participatory learning on the academic self-regulation of elementary students concluded that participatory learning (which is one of the methods of support) The academic self-regulation of fifth grade students in Saveh is effective.

### **Research goals and hypotheses:**

The general purpose of the present study: to explain the effect of educational support on the academic self-regulation of primary school students-Arjan Buddh. This research also had two partial objectives as follows:

Partial objectives of the research:

- 1- Explaining the effect of educational support on the cognitive strategies of primary school student
- 2- Explaining the effect of educational support on metacognitive strategies of primary school

students Due to the fact that the research tool had 6 components of academic self-regulation, the effectiveness of educational support for these 6 components was also examined.

Supporting methods such as facilitation, modeling, reducing complexity, planning, goal setting, by clarifying the structure and turning a problem into smaller components. Helps the learner to achieve the desired goal in the next steps without the help of others (achieving self-regulation)

### **Research method and tool:**

Research method: The method used in this research was applied and the research was conducted as a quasi-experimental. Data collection method: In this research, for collecting information and data from site articles with the help of the Internet, as well as related books were used. Statistical population: There were elementary school students in Arjan region in the academic year of 1999-400 and the sample was taken from two elementary students of Arjan schools in two groups of 25 random clusters.

Sampling method and sample size: A random method was used to select the sample. Two classes from the sixth grade of schools in region one were selected as the control group and the other as the experimental group. Research tools: Arabzadeh Vesavari 92 educational self-regulatory questionnaire, which consists of 30 items (30 questions and six factors as memory strategy (5 items), goal setting (3 items), self-assessment (6 items), seeking help (6 items), responsibility (4 items) and organization (6 items)) Reliability of academic self-regulatory questionnaire through Cronbach's alpha for the whole questionnaire 0.87, for memory strategy 0.74, for targeting 0.75, for self-assessment 0.83, for help 0.71. was estimated to be 0.72 for responsibility and 0.76 for organization. In

addition, its validity was checked and confirmed through confirmatory factor analysis (Arabzadeh, Savari, 92)

The questionnaire was prepared and prepared using the Press Line software. Due to the coronary conditions, the link to the questionnaire was first provided to the experimental group. Lines collected When sending, they were asked to answer all 30 questions carefully and honestly and then send the answers. After receiving the answers, while coordinating and justifying both students regarding the purpose, method of research, and determining chapters 6 and 7 of the sixth grade mathematics, the witness group was asked to teach these two chapters to the students in a good self-traditional way. The fascination of this software was that learners who have little interest in a topic of math can be interested in elements such as color, graphics, and exciting explanations. Numerous studies have shown that films in which good graphics are used are the most attractive. This attraction keeps the learner from watching the whole film.

Although educational support has a long history, but basically the scientific term "support" is rooted in the constructivist perspective. Therefore, in preparing educational videos, in addition to using case and practical examples, emphasizing the important issues of the topics, getting help from the students' knowledge of previous years in the topics of these two math chapters, homework assignments should be given to them individually and in groups. Strengthen your memory ..

Examining previous sources and research, it was found that support construction has categories such as: cognitive, procedural, motivational, metacognitive and textural support, in the training of the experimental group of various types of support to prepare the conditions for educational support in the training lab such as unfinished sentences, questions Stimulus, solved examples, moving images, symbols, colors, introduction and recall of relationships between concepts, self-explanatory, etc. were used.

This process lasted for two consecutive months according to the budget set by the Ministry of Education for teaching each chapter of elementary mathematics, one month of the academic year.

Following the re-link, the academic self-regulatory questionnaire was sent to the students of both groups in the first series, and they were asked to answer the questions carefully, patiently and honestly, and to send their answers. After reproducing the data,

It is noteworthy that the experimental group in responding to the pre-test self-regulatory questionnaire showed a lower mean score than the control group and this was considered important.

#### **data analysis:**

The general purpose of this study was to investigate the dimensions of educational support for academic self-regulation. To answer this goal, two sub-questions related to the main purpose (cognitive and metacognitive) and 6 subscales were asked and examined.

**Table 1-4 Components and questions related to each component: In this table, the questions of the separation questionnaire and the components and number of each are specified.**

<b>Number of questions</b>	<b>questions</b>	<b>Subscales</b>	<b>Row</b>
5	1to5	<b>Memory Strategy</b>	<b>1</b>
3	6to8	<b>Targeting</b>	<b>2</b>
6	9to14	<b>Self-assessment</b>	<b>3</b>
6	15to20	<b>Ask for help</b>	<b>4</b>
4	21to24	<b>Responsibility</b>	<b>5</b>
6	25to30	<b>Organize</b>	<b>6</b>

1-4The scoring of the questionnaire was done as a Likert scale, so that for the options "Strongly Agree", "Agree Disagree", "Disagree" and "Strongly Disagree", the scores were 5, 4, 3, 2 and 1, respectively.

Questions 1-4-5-8- and 30 are cognitive questions and questions2-3-6-7-9 are up to 29 metacognitive questions.

**Table 2-4 Hypotheses were considered**

<b>Supporting strategies</b>	<b>Type of support</b>	<b>Framework dimensions</b>	<b>Row</b>
1 - Adaptive and Explanatory Pre-Organizer (Clark, 2010) 2. Solved examples (Fan Marinboyer, 2003 and Rankel, 2005) 3. Separation of interacting elements (Pollack et al., 2002) 4. Information resources, concept maps (McGregor, 2004)	Cognitive	Support based on cognitive skills	<b>1.</b>
1. Irritating Questions (Bell Valley, 2000) 2. Incomplete sentences (Bell Valley, 2000) 3- Reminiscent information notes (Jamaluddin Welling, 2006) 4. Visual instruments 5. Self-monitoring warning notes	Metacognitive	Support based on metacognitive skills	<b>2.</b>

Due to the long stages of the work, only the analysis of the original case is fully stated. The

rest of the hypotheses are discussed only by analyzing the variance and stating their results.

data analysis: In this chapter, the obtained data are presented in the descriptive data and inferential analysis sections. In the inferential statistics section, the test results are examined using the relevant statistical methods. And hypotheses will be tested using analyzes.

A) Descriptive data  
Descriptive study of scores of research variables:

**Table 3-4: Mean and standard deviation of scores of research variables**

The standard	Average	Number	Performance	group	variable
14/01	121/36	25	pre-exam	the experiment	Self-regulatory education
13/3	133/24	25	Post-test		
15/9	121/60	25	pre-exam	Control	
13/7	123/84	25	Post-test		
2/9	20/44	25	pre-exam	the experiment	Memory strategy
2/5	22/56	25	Post-test		
3/5	18/96	25	pre-exam	Control	
3/08	19/88	25	Post-test		
2/5	15/76	25	pre-exam	the experiment	Target selection
1/9	18/12	25	Post-test		
3/05	16/36	25	pre-exam	Control	
2/7	16/76	25	Post-test		
3/02	22/64	25	pre-exam	the experiment	Self-assessment
3/3	25/72	25	Post-test		
3/6	23/44	25	pre-exam	Control	
3/5	23/80	25	Post-test		
4/00	23/80	25	pre-exam	the experiment	I want help
3/9	25/76	25	Post-test		
3/2	25/16	25	pre-exam	Control	
3/1	25/008	25	Post-test		
2/6	15/60	25	pre-exam	the experiment	responsibility
2/2	17/16	25	Post-test		
2/5	16/52	25	pre-exam	Control	
2/5	16/68	25	Post-test		
3/3	26/72	25	pre-exam	the experiment	Organization
2/1	28/48	25	Post-test		
4/04	25/40	25	pre-exam	Control	
2/9	25/96	25	Post-test		

3/2	20/48	25	pre-exam	the experiment	Cognitive
2/3	22/92	25	Post-test		
3/3	18/88	25	pre-exam	Control	
2/6	20/40	25	Post-test		
12/5	104/40	25	pre-exam	the experiment	Metacognitive
12/3	114/64	25	Post-test		
13/6	106/80	25	pre-exam	Control	
11/9	107/64	25	Post-test		

According to Table 3-4, it can be seen that the average scores of academic self-regulation post-test and its dimensions are higher in the experimental group than the control group.

**Hypothesis 1:** Educational support training is effective on students' academic self-regulation. Examining the assumptions of analysis of covariance:

Default normal distribution of scores:

**Table 4-4: Assessing the normality of academic self-regulatory variable**

<b>Kolmogorov-Smirnov test</b>			<b>Variable</b>
<b>Significance level</b>	<b>Statistics</b>	<b>Number</b>	
0/3	0/900	50	<b>Pre-test academic self-regulation</b>
0/9	0/486	50	<b>Post-test academic self-regulation</b>

The results of the analysis of the above table show that the value of significant levels in the above test is greater than 0.05. Hypothesis zero in the Kolmogorov-Smirnov test is that the data follow the desired distribution (which is normal here). The opposite hypothesis is that the data does not follow the desired distribution (which

is normal here), due to the amount of significance levels and does not reject the null hypothesis, the data distribution is considered consistent with the normal distribution.

Homogeneity of variance: The subjects should be homogeneous in terms of variance. The Levin test tests this assumption.

**Table 5-4: Determining the equality of variance of academic self-regulatory scores (Levin test)**

Significance level	Second degree of freedom	The first degree of freedom	the amount of	Variable
0/70	48	1	0/141	<b>Pre-test academic self-regulation</b>
0/72	48	1	0/125	<b>Post-test academic self-regulation</b>

As can be seen from the table above, the value of f was not significant for the pre-test and post-test academic self-regulatory variables ( $p < 0.05$ ), so we conclude that the difference between the variance of the experimental and

control group scores in the pre-test There is no meaning and this presupposition is observed. Third Default: Check the homogeneity of the regression slope

**Table 6-4: Test of interaction between groups and pre-test by following the variable of academic self-regulation**

Significance level	Statistics Test	Average squares	Degree the freedom	Total squares	Source of changes	Variable
0/0001	135/7	4214/645	2	8429/289	<b>The effect of pre-test and group interaction</b>	<b>Academic self-regulation</b>

According to the above table, it can be seen that the value of f of the pre-test and group interaction is equal to 135.7 which is significant ( $P < 0.01$ ), so it can be concluded that the assumption of regression homogeneity slope is not observed.

Now, according to these three presuppositions and non-observance of all of them, for

statistical analysis of the effect of educational support training on academic self-regulation, the method of "covariance analysis" can not be used and the analysis of variance test of one factor on the difference scores. Test We use pre-test (surplus score). The results can be seen in Tables 5-4 and 6-4.



**Table 7-4: Investigating the difference in the difference between academic self-regulatory scores by experimental and control groups**

The standard deviation	Mean difference	Number	group
5/8	-11/88	25	the experiment
6/4	-2/2	25	Control

**Table 8-4: Evaluation of one-way analysis of variance of academic self-regulatory scores by experimental and control groups**

p	F	Average squares	Degrees of freedom	Total squares	Source of changes
0/0001	30/6	1161/62	1	1161/62	Intergrout
		37/858	48	1817/20	Intergrout
			49	2978/82	Toalt

According to Table 8-4 and observation of significance level, it can be seen that the value of test statistics (30.6) at the level (0.0001) has become significant ( $p < 0.01$ ) (because it is less than the acceptable level of 0.05 Is). This means that there is a significant difference between the academic self-regulatory scores of the people in the experimental group compared to the control group. And from the difference between the

means in Table 5-4, it can be concluded that educational support training has a significant effect on students' academic self-regulation.

**Hypothesis 2:** Educational support training is effective on students' cognitive strategies.

- Examining the assumptions of analysis of covariance:
- Default normal distribution of scores:

**Table 9-4: Investigating the normality of the cognitive strategies variable**

Kolmogorov-Smirnov test			Variable
Significance level	Statistics	Number	
0/6	0/729	50	Pre-test cognitive strategies
0/08	1/25	50	Post-test cognitive strategies

The results of the analysis of the above table show that the value of significant levels in the above test is greater than 0.05. Hypothesis zero in the Kolmogorov-Smirnov test is that the data follow the desired distribution (which is normal

here). The opposite hypothesis is that the data does not follow the desired distribution (which is normal here), due to the amount of significance levels and does not reject the null

hypothesis, the data distribution is considered consistent with the normal distribution.  
Homogeneity of variance:

Subjects should be homogeneous in terms of variance. The Levin test tests this assumption.

**Table 10-4: Determining the parity of variance of cognitive strategies scores (Levin test)**

freedom Significance level (p)	Second degree of	The first degree of freedom	The value of f	Variable
0/6	48	1	0/179	<b>Pre-test cognitive strategies</b>
0/5	48	1	0/332	<b>Post-test cognitive strategies</b>

As can be seen from the table above, the value of f was not significant for the variable of pre-test and post-test cognitive strategies ( $p < 0.05$ ), so we conclude that the difference between the variance of the experimental and control group

scores in the pre-test There is no meaning and this presupposition is observed.

Third Default: Check the homogeneity of the regression slope

**Table 11-4: Test of interaction between groups and pre-test by following the variable of cognitive strategies**

Significance level	Test statistics	Average squares	Degrees of freedom	Total squares	Source of changes	Variable
0/0001	35/5	115/927	2	231/853	<b>The effect of pre-test and group interaction</b>	<b>Cognitive strategies</b>

According to the above table, it can be seen that the value of f of the pretest and group interaction is equal to 35.5, which is significant ( $P < 0.01$ ), so it can be concluded that the assumption of homogeneity of regression slope is not observed.

Now, considering these three assumptions and non-observance of all of them, for statistical

analysis of the effect of educational support training on cognitive strategies, the method of "covariance analysis" can not be used and the analysis of variance test of one factor on the difference scores Test We use pre-test (surplus score). The results can be seen in Tables 4-10 and 11-4.

**Table 12-4: Investigation of the difference in scores of cognitive strategies by experimental and control groups**

standard deviation	Mean deviation of	Number	group
2/3	-2/44	25	the experiment
2/2	-1/52	25	Control

**Table 13-4: One-way analysis of variance of cognitive strategies scores by experimental and control groups**

p	F	Total squares	Degrees of freedom	Average squares	Source of changes
0/1	1/9	10/58	1	10/58	Intergroup
		5/3	48	258/40	Intergroup
			49	269/98	Total

According to Table 13-4 and observation of significance level, it can be seen that the value of test statistics (1.9) was obtained at level (0.1) and therefore not significant ( $p < 0.01$ ) Is less than 0.05). This means that there is no significant difference between the scores of cognitive strategies of people in the

experimental group compared to the control group.

**Hypothesis 3:** Educational support training is effective on students' metacognition.

Examining the assumptions of analysis of covariance:

Default normal distribution of scores:

**Table 14-4: Investigation of normality of metacognitive variable**

Kolmogorov-Smirnov test			Variable
Significance level	Statistics	Number	
0/9	0/562	50	Pre-test metacognitive
0/8	0/573	50	Metacognitive post-test

The results of the analysis of the above table show that the value of significant levels in the above test is greater than 0.05. Hypothesis zero in the Kolmogorov-Smirnov test is that the data follow the desired distribution (which is normal here). The opposite hypothesis is that the data

does not follow the desired distribution (which is normal here).

Homogeneity of variance: The subjects should be homogeneous in terms of variance. The Levin test tests this assumption.

**Table 15-4: Determining the equality of variance of metacognitive scores (Levin test)**

Significance level (p)	Second degree of freedom	The first degree of freedom	The value of f	Variable
0/6	48	1	0/197	<b>Pre-test metacognitive</b>
0/9	48	1	0/001	<b>Metacognitive post-test</b>

As can be seen from the table above, the value of f is not significant for the metacognitive variable of pre-test and post-test ( $p < 0.05$ ), so we conclude that there is a significant difference between the variance of

experimental and control group scores in pre-test. Does not exist and this default is met.

Third Default: Check the homogeneity of the regression slope

**Table 16-4: Group interaction test and pre-test with metacognitive variable tracking**

Significance level	Test statistics	Average squares	Degrees of freedom	Total squares	Source of changes	Variable
0/0001	150/3	3322/635	2	6645/27	<b>The effect of pre-test and group interaction</b>	<b>Metacognitive</b>

According to the above table, it can be seen that the value of f of the pretest and group interaction is equal to 150.3 which is significant ( $P < 0.01$ ), so it can be concluded that the assumption of regression slope homogeneity is not observed.

Now, considering these three presuppositions and non-observance of all of them, for

statistical analysis of the effect of educational support training on metacognition, the method of "covariance analysis" can not be used and the analysis of variance of one factor on the difference scores of posttest We use pre-test (surplus score). The results can be seen in Tables 17-4 and 18-4.

**Table 17-4: Investigation of the difference between metacognitive scores by experimental and control groups**

standard deviation	Mean deviation of	Number	group
5/3	-10/2	25	<b>the experiment</b>
4/6	-0/84	25	<b>Control</b>

**Table 18-4: Evaluation of one-way analysis of variance of metacognitive scores by experimental and control groups**

<b>p</b>	<b>F</b>	<b>Source of changes</b>	<b>Total squares</b>	<b>Degrees of freedom</b>	<b>Average squares</b>
0/0001	43/5	1104/5	1	1104/5	<b>Intergrape</b>
		25/3	48	1217/92	<b>Intergrape</b>
			49	2322/42	<b>Total</b>

According to Table 18-4 and observation of significance level, it can be seen that the value of test statistics (43.5) at the level (0.0001) has become significant ( $p < 0.01$ ) (because it is less than the acceptable level of 0.05 Is). This means that there is a significant difference between the metacognitive scores of the people in the experimental group compared to the control group. And from the difference between the means in Table 4-18, it can be concluded that

educational support training has a significant effect on the metacognition of students.

**Hypothesis 4:** Educational support training is effective on the dimensions of students' academic self-regulation.

Multivariate analysis of variance was used to test this part of the hypothesis. The results obtained in the table

Can be seen below.

- Default draw of covariances

**Table 19-4: Box test results on the assumption of equality of variances**

<b>Level</b>	<b>Indicator</b>
37/316	<b>box</b>
1/537	<b>the amount of F</b>
21	<b>Degree of freedom 1</b>
8474/108	<b>Degree of freedom 2</b>
0/055	<b>The significance level</b>

The results of Table 19-4 show the assumption of equality of covariances or relationships between six dependent variables in the two

groups that the difference has not reached a significant level. Therefore, multivariate analysis can be used.

**Table 20-4: Results of multivariate analysis (MANOVA) of the studied variables in two groups**

<b>Statistical power</b>	<b>Eta coefficient</b>	<b>Significant level of</b>	<b>Degrees of freedom</b>	<b>The value of F</b>	<b>Indicator</b>
0/99	0/42	0/0001	5/35	0/572	<b>Wilks Lambda</b>

The results of multivariate analysis in the table above show that the difference between the two groups in terms of six-variable centroid is significant ( $P < 0.05$ ), so the second hypothesis has been confirmed. The effectiveness of educational support on academic self-

regulation Students were 0.42, or in other words, 42% of the differences were due to group membership. Therefore, each of the variables is examined separately. Statistical power of 0.99 indicates the adequacy of the sample size

**Table 21-4: Investigation of differences in scores of academic self-regulation dimensions**

<b>Squared</b>	<b>p</b>	<b>Test statistics</b>	<b>average of squares</b>	<b>degrees of freedom</b>	<b>Total squares of</b>	<b>Dimensions</b>	<b>Source of dispersion</b>
0/19	0/002	11/08	89/78	1	89/78	<b>Memory strategy</b>	<b>group</b>
0/08	0/04	4/09	23/12	1	23/12	<b>Target selection</b>	
0/07	0/054	3/8	46/08	1	46/08	<b>Self-assessment</b>	
0/009	0/5	0/45	5/78	1	5/78	<b>You want help</b>	
0/01	0/4	0/49	2/88	1	2/88	<b>responsibility</b>	
0/20	0/001	11/93	79/38	1	79/38	<b>Organization</b>	
			8/1	48	388/80	<b>Memory strategy</b>	<b>Error</b>
			5/6	48	271/20	<b>Target selection</b>	
			11/8	48	569/04	<b>Self-assessment</b>	
			12/7	48	612/40	<b>I want help</b>	
			5/8	48	278/80	<b>responsibility</b>	
			6/6	48	319/20	<b>Organization</b>	

				50	22993/00	<b>Memory strategy</b>	<b>Total corrected</b>
				50	15502/00	<b>Target selection</b>	
				50	31268/00	<b>Self-assessment</b>	
				50	32927/00	<b>I want help</b>	
				50	14596/00	<b>responsibility</b>	
				50	37445/00	<b>Organization</b>	

The results of univariate analysis in Table 21-4 indicate that the difference between the non-column squares of ETA for memory strategy, goal setting and organization is equal to 19, 8 and 20%, respectively. Also, by observing the mean of these components in Table 1-4, it can be seen that the mean of post-test scores of these three components in the experimental group is higher than the control group.

#### **Discussion and conclusion:**

Application of the two categories of support and self-regulation, each separately in the upbringing and development of personalities. Effective and necessary. Both of these are complementary and necessary.

Both categories originate from the perspective of constructivist theorists. Many researchers have studied the effectiveness of the reliance strategy on a variety of personality traits. However, its effect on academic self-regulation or, as a matter of fact, has not been taken into consideration. In this research, after determining the title of the research, study and review of various sources (dissertations, articles, e-books and printed books, etc.) determine the sample population as a random cluster and conduct training based on reliance, academic self-regulation (according to global and virtual conditions Classes were performed on the experimental group, pre-test and post-

test were performed on both experimental and control groups, and finally the obtained data were presented, and the data were analyzed into two parts: descriptive data and inferential analysis.

Without observing all the presuppositions, the statistical method of analysis of variance was used as a factor. The effect of meaningful meanings also has no significant effect on the metacognitive strategy and the three components of memory, goal setting and organization. The ANCO software and multivariate analysis of covariance were analyzed by Panco In the descriptive data section, the results showed that the mean scores of post-test self-regulation and its dimensions in the experimental group were higher than the control group. Determining daily tasks and reviewing the performance and re-answering the questions of both groups showed the data of the review questionnaire. After the test, the experimental group not only reached the control group, but also surpassed the control group in metacognitive strategy and targeting components, memory and organization, and was at a high level of self-regulation.

It is noteworthy that in the process of making support in the formal training of all three grades, the students in the experimental group (strong, medium and weak) reached a good level of academic self-regulation.

Although the randomized experimental group received a lower average of self-regulation in the pre-test than the control group, they performed better in the post-test than in the control group in matters such as metacognitive strategy, organizational component, memory and memorization, and target selection.

This means that the trained group showed more positive academic self-regulation after eight training sessions compared to the control group. They thought they were more efficient than before, while they were more cognitively self-regulating. Explain that students who took on a purposeful role in learning and acting on supports had better performance.

Generally Frayndamvzsh support for self-regulated learning, retention and recall facilitate Bkhshydsth goal setting Rabalabrd, involvement meta Fragyrraafzaysh Dadvdrprvs·h learn the timing and activities of Mvzbrnamh snow organize Bkhshydvnhayta academic performance Rabhbvdbkhshydrvabt the umbrella group Ranyrvmndsakht sense of satisfaction Azkhvdps Az·hrkhvdrahbrdy confidence students Increased

It is important to note that students who were able to use appropriate support and variety were more successful in acquiring self-regulatory skills. The use of cognitive and metacognitive strategies can also transfer the responsibility of teaching-learning from teachers to students.

It is necessary to pay attention to this point that the support construction steps must be observed during the training. The first step in designing the desired educational support construction was to consider the necessity of providing training support. At the end of the process, no support was provided and only an assignment was given and the test was held. It is obvious that students in the fields of self-regulation, self-examination and self-learning need help and training from different media people and

when they become familiar with cognitive and metacognitive strategies, they can achieve self-regulation.

Comparing the findings of this study with previous studies, it is clear that the results are consistent with most previous studies, including the study of the effect of participatory learning on academic self-regulation, 95 which had a significant effect. Communication skills have also played an effective role in self-regulation

As well as research on educational support and its effectiveness in mystical academic learning, 99 in all of which have been positively and meaningfully related. Due to the lack of significance of the research relationship on cognitive strategy, this research can be considered inconsistent with the research on the role of cognitive and metacognitive strategic education in Mohammadifar's self-regulation.

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