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## STUDYING THE RELATIONSHIP BETWEEN SELF-REGULATION AND HIGH SCHOOL STUDENTS' ACADEMIC MOTIVATION OF THE SECOND COURSE IN COUNTY OF LARESTAN

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### ABSTRACT

**Objective:** To study the relationship between self-regulation and motivation in education to high school students in the second period, science education was Larestan city. **Methods:** In this study, all students were selected science education. Questionnaire to assess self-regulation and self-regulation variable check Bovfard Academic Motivation Scale Harter's motivation was used. **Results:** The Pearson correlation showed a significant relationship between academic motivation and self-regulation exists ( $p < 0.05$ ). T-test results showed no significant difference between male and female students in terms of academic motivation and self-regulation does not exist. One-way analysis of variance indicated that students of basic education, there are significant differences in terms of self-regulation but there was no significant difference in terms of motivation. **Conclusion:** According to researchers, teachers and teacher education deserves to be customized to provide the right conditions for growth, learning and teaching strategies to motivate self-regulated learning, to give students more opportunities for learning and creativity.

**Keywords:** Motivation, Self-Regulation, Student

### INTRODUCTION

Nowadays the lack of interest and motivation for students and collegians is one of the problems' people involved in educational issues which face in education.

Perhaps it can be said, the loss of scientific or educational level available in schools and lethargy and asthenia that currently threatens the quality and quantity of education in society, is from consequences of this issue (Afshari and Mehrdad, 2001).

Motivation due to its crucial role in students' learning is one of the topics of interest for psychologists. According to Roach *et al.*, (1999). Motivation in education has influences on students' learning style. These impacts include:

- (1) Conducting behavior towards toward the specific goals,
- (2) Increasing the effort and energy
- (3) Increasing activity and insistence on doing it,
- (4) Strengthening the cognitive processes,
- (5) Determining the consequence of reinforcer and
- (6) Improving performance.

In psychology, motivation is referred to initiation, direction, intensity and resistance of behavior (Geen, 1995). Motivation is a dynamic and temporary situation which should be separated from personality or emotion. Motivation is desire and interest to do something. A motivated person can enjoy the short term and or the long term goals. Personality is attributed to more durable traits and characteristics of persons (such as timidity, extraversion, consciousness, etc.). Also unlike motivation, emotion focuses on transient states (such as anger, sadness, happiness, etc.) which aren't resulted in behavior immediately.

Psychologists have known the academic and motivation of achievement among human beings' acquired motivations. McClelland *et al.*, have examined the concept of motivation of achievement more than others. From their viewpoint, motivation is discussed when a person in his/her own activity puts a distinctive criterion as pattern and seeks the success (Clelland and David, 1961). Researches show that the

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more intensity of motivation for achievement, the more successful individual (Afshari and Mehrdad, 2001).

Zimmerman has described self-regulation as the Meta cognitional, motivational and behavioral active participation's learners in the learning process (Zimmerman, 2005).

Studying factors affecting academic achievement over the past three decades, more and more has been considered by educational specialists. Sensitivity of education on the one hand and the complexity of the today world, on the other hand demands more aware principals and teachers to provide the collective and Meta cognitive development context. According to today's Paris and Winograd, today the focus of education instead on providing the educational program or classroom behavior management should change to foster the motivated and strategic students (Paris and Winograd, 1990). One of other factors that its influence on learning has emphasis is the educational motivation. Motivation is associated with issues such as emotion, attitude and valuation. According to research conducted, both the factors of motivation and self-regulated learning are effective on the individual's future Therefore, it's necessary to being assessed the relationship and effect of these two on education so that one person can be led to better life and future.

According to McClelland's motivational theory, motivation of progress when is grown that individual efforts in areas where has willing to progress in it, mostly faces the success (Mental Health).

#### **Motivation**

"Incentive and motivation often as synonym are used, however, incentive can be known more accurate than motivation so that the motivation is taken into account general factor of generating behavior but incentive is specific cause of a particular behavior. The term of incentive is used more in referring to human behavior (Seif and Akbar, 2008)." According to Russell, "The motivation is applied showing the purpose or efficiency of a behavior. Then, using the term of motivation is not allowed for animals (Russell, 1971). "As observed above contents, Saif distinguishes slightly between incentive and motivation, but Russell speaks only about incentive. Now, we address the difference between incentive and motivation from the viewpoint some of other people.

In fact, "the motivation is a factor to stimulate the organism to do activity and direct its function. But motivation is state which causes tending to do a specific operation (incentive) in organism. For example, need for water and food is said incentive and the feeling of thirst and hunger is called motivation. In fact, the motivation explains why of behavior (Hamzeh, 1999). Motivation can be known as factor of stimulator, director and energy provider that induces a person in a particular time and with a particular style to achieve a particular goal or purpose attempts to do act or behavior (Yahya, 2009).

Generally, behavior of human being based on two factors sets is placed. A set of more or less constant characteristics and abilities (character) and other set, are a series of temporary steps which motives form their the most important set (Azimi, 1994). Part of behavior also is influenced by emotion (from factor of the second set) that also contrary to the motivation focuses on transient states (such as anger, sadness, happiness, etc.) That is resulted in behavior immediately. Motivation is a desire or tendency to a particular way that some psychologists liken it to a car engine (Gage and Borliner, 1995). Accordingly, we can say that motivation also is the steering wheel that in fact, the car engine operates car and the steering wheel specifies direct of moving car.

Generally, psychologists believe that the motivation is a force that motivates a person to do behavior in order to achieve an internal reinforcement. But motivation is used in cases that the source of reinforcing behavior is an external factor. In other words, a person to reach a certain state or condition externally does behavior (Parsa, 2003). Therefore, the motivation as a fundamental force is at all acts. This force determines direction and destination of our behavior. The motivation can be considered as an external stimulus that such as a progressive force, leads someone to perform the desired behavior.

#### **Factors Affecting Motivation**

Mentioning a scientific example shows the motivation. We think in a classroom, collegians attend professor dialogue with apathy. For attracting their attention, the professor asserts what he says, is used in the final exam without doubt. Immediately, the intense attention of collegians will be attracted. This

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interest is as a result of causing incentive for them. Motivation in psychology is as the magnet in physics and is used to explain and describe the behavior. Hence, conditions of causing it should be considered.

The factors affecting the motivation are viewed the following briefly:

#### **Role of the Needs and Drives**

According to many psychologists viewpoint, needs and drives are of factors affecting motivation. Some have studied human behavior base in physiological needs such as food, water, oxygen and considered intangible behaviors in relation to them indirectly. For example, they have known social needs as derived from the main and fundamental requirements (Parsa, 2002).

#### **Cognitive Drive**

In theory's Isobel, "cognitive drive" is of the most important factors affecting the motivation. Isobel believes cognitive drive is an intrinsic incentive which is resulted from the learner's curiosity and interest to explore, manipulate, understand and deal with the environment. Drives or cognitive interests mainly have acquired aspect and are based on learner specific experiences (Seif, 2007).

Some psychologists have called this drive as "need for stimulation" and others as "curiosity drive" or "exploratory drive" (Parsa, 2002).

In fact, the human individuals need a form of environmental stimulation or arousal. This stimulation appears in the different forms such as the presence in literary associations and lectures, clubs, various visit, reading book and intellectual and scientific exploitation that has great effect in shaping and changing their behavior.

#### **The Principle of Reinforcement**

Reinforcement psychology is a new kind of pleasure principle. Certain principle in this psychology reflects this fact that the person or conducting the behavior does the action that is followed by reward or is strengthened and avoids a behavior that is the deleterious or futile.

According to Lefransova, "psychological hedonism (pleasure principle) is from the most important principles of motivation for behaviorists (François, 1997)".

According to Skinner, a factor that increases the likelihood and type of the answer in the future is basis of behavior for every organism (Parsa, 2002).

In the behavioral approach of motivation, incentives are a source of student motivation. According to Volfok, incentive is a stimulus that causes behavior or prevents to do it (Woolfolk, 2004).

Therefore, using internal and external incentives can be effective in increasing the motivation of individuals. Internal incentive is said to aspects of learning activity that are of interest to the learner, thus, have the motivational property itself. External incentive is said to rewards and reinforcements which have the external aspect compared with learning activity.

#### **Self-Conceiving and Motivation**

Growth of positive "self-conceiving" (creating a sense about self) causes to increase incentive for achieving success (Kharrazi, 2000). Self-conceiving is a comprehensive view of individual about his / her own. If we can put a person in a situation that is completely free, open and close in describing himself/herself and the result of this description is words such as "smart", "hardworking", "pitier", "mature", "responsible", "thinker" and like them, we have gained his/her extract of self-conceiving. Self-conceiving is not fixed and immutable (Hamackek, 1995). But is formed by individuals experience and others interpretation about that experience. For example, scoring in the contest ("I am a certain scorer ") is a belief that occurs as a result of the experience for the person and becomes a basis to look at his/her own.

#### **Importance of Friends**

Healthy man likes to have a friend. Man with his/her friends feels to belong and makes sense that is lovely. Friend validates person and is consistent with his/her present needs and desires. Part of the human character is derived from friends. "I make friends with such persons, so, I am also like them" (Brewer, 2005).

Basically, human tends to do things in group and avoids individualism. Collectivism is also a circle for the exchange of idea and experience that if is in the correct path, provides an appropriate and ethical context for development and perfection of person.

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True friends are supporter and aid together as well as faithful to each other. When for one of them occurs a problem, provide a safe refuge for him/her and its impact is so that incentive of many our behaviors is derived from friends that we have. Mary Pifer her unique book, *Reviving Ophelia* which is about teenage girls, says: friends can "be fulfilling and causing improvement" or can "cause involvement and destructive of growth" (Murray, 1983).

And such issues express the importance and type of friend that man must be very careful in choosing friend that contrary to the impression of some public that say we will not such improper behavior from friend, in many cases, secretly we are learning the types of behavior from our friends that this issue has caused psychologists say: tell me what percentage of your friends have such a certain type of behavior until I tell you how much are disease? For example, if 80% of your friends are formed from loving and piteous individuals, there is this behavior also in you to extent of 80% and in other cases....

And we can mention this point that one of ways for enhancing incentive in students is leading them to choose friends with high achievement incentive and diligent in the studious affairs.

### **Self-Regulation**

Given the importance of academic achievement, researchers have considered carefully factors affecting on academic achievement such as the effect of educational methods (Samadi, 2007), motivational beliefs (Kajbaf *et al.*, 2003), and like it. One of the important factors that may affects the academic achievement, is self-regulation factor.

Pintrij (Pintrich and Groot, 1990) According to a relatively comprehensive definition defines this type of learning as an active and organized process during which learners set goals for their learning, then try to adjust, control and monitor their recognition, motivation and behavior (Stefanou, 2001).

Cognitive psychologists and researchers such as Bandura's Social raised the self-regulation since the 1960s (Kadiva, 2003) of the common features for the various viewpoints in this area is relatively large overlapping these viewpoints together. Zimmerman (Zimmerman *et al.*, 1986), one from the theorists of social cognitive theory defined self-regulated learning strategies as a form of learning in which learners rather than relying on their teachers, parents and or other educational administrators to acquire knowledge and skill personally initiate and conduct their efforts. In other words, he refers self-regulation in learning to learner active participate from behavioral, motivational, cognitional and Meta cognitional aspect in learning process to maximizing learning. Therefore, according to Zimmerman & Puns, self-regulated learning strategies in learning have subsets that can be known to include these areas: behavioral self-regulation, motivational self-regulation, and cognitional self-regulation and Meta cognitional self-regulation.

Behavioral self-regulation is said optimal use of various resources that makes more learning. These resources include time, location, how to get help from available sources, including teachers, parents, friends, teaching materials and teaching aids (Zimmerman, 1988).

Motivational self-regulation is referred to using actively motivational strategies increasing learning. These learners see themselves as qualified, self-efficacy and independent individuals at all stages of learning. In terms of cognitive and Meta cognitive, self-regulated learners are those who have planning, organizing, self-learning, self-control and self-assessment in learning (Zhang, 2010).

Zimmerman (1986) presented a pattern form fourteen self-regulated learning strategies that learners use to learn from them.

These strategies include self-assessment, organizing and transforming, goal setting and planning, information searching, recording and note-taking and self-control, organizing environment, rehearsal and memorization, seeking help from peers, people and adults, reviewing tips, notes and handouts, homework and exams review, and finally the review of the textbooks.

Of other variables that affect on academic achievement are motivational strategies for learning. Motivational strategies for learning are said those behaviors that are associated with learning and development. Motivation of academic achievement has been defined on the basis of various approaches. Some of these approaches discuss motivations related to success in general. One of them is the objectives approach that has emerged based on the adaptive and maladaptive motivations (Ames, 1984a).

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Researches in the field of objectives approach have shown that people with the same capabilities when facing with learning difficulties, offer a variety of responses. Some people despite capabilities in the high level show difficulties so large that it seems their ability is limited and they are frustrated from their efforts being led to success. This mode of behavior sometimes may be interpreted as a learned helplessness pattern that is anyhow maladaptive, because creates an obstacle to achieving the worthwhile goals. Against, other people are that know solvable problems available on the way and are not uncomfortable from them and even in their existence feel pleasure of overcoming challenge. They address to change strategies with the maximum effort and strengthen their problem-solving ability.

In fact, these responses are called the Mastery oriented responses. Learning theory of self-regulation is based on the belief that students how from the Meta cognitional, motivational and behavioral organize their own learning (Zimmerman, 1990).

Many research findings mention that motivational beliefs and learning strategies of self-regulation are considered two important components in academic performance of students, but they less investigate the relationship among motivational beliefs and self-regulated learning strategies with academic performance as an interwoven set.

### **Motivation of Achievement and Gender Differences**

Measuring motivation of achievement by McClelland et al by test of topic apperception (TAT) was conducted and further research revealed that predictions of this test about men is true but in the case of women is not true and research with women by this test is vague and this ambiguity has caused psychologists leave research about motivation of the progress on women (Fergusson, 1976).

Also, two decades of researches related to the development have been mainly in the case of men. A limited number of studies that have been conducted on female subjects has shown that the need for improvement in women is low than men. Other evidence has also shown that women differently than men perceive progress and less progress (Mollakhah, 2004).

Weiner, quoted by Buck stated that competing in the advancement of women is seen more as a complex phenomenon. Horner (1960) claimed that women compared to men most likely are afraid of success. Horner believes that women may have a desire to progress, but their motivation of achievement by concerns about success drops. The severity of this is determined by structures such as fear, educational level and employment (Bock, 988).

Also, women in tasks of development have less confidence than men. There is this probability that because girls follow behaviors that as feminine behaviors by peers and adults have been identified, therefore show lower motivation of achievement and confidence compared to boys (Manzari, 1996).

### **Age Differences in Needing Achievement**

Existing evidence shows that the need for development in most individuals after the middle age dramatically drops and this is when the peak of occupational activity comes. However, this idea has been discussed which it may essentially not have adverse or destructive effect, because older people may define the success in different terms.

They may for achieving the same purposes which they were looking at a young age, are not motivated, although may still also try to achieve satisfaction or challenge (Schultz and Schult, 1990).

If one old person achieves security and reputation in his work, in this case, the purposes of personal growth may be replaced the primary objectives related to the situation, status or high-income.

New targets don't need the same competitive behavior or attempt and effort, but development in them can be considered as a form of success, of course from other type. Therefore, quality of improvement motivation may change with increasing age (Lepper *et al.*, 2005).

Given the role that self-regulation can have in the students' academic motivation, present research is looking for answering to this question whether there is a significant relationship between the academic self-regulation and motivation' high school students in Lar county?

### **Research Questions**

1. Is there a significant relationship between the self-regulation and academic motivation' students?
2. Is there a significant relationship between girls and boys in terms of self-regulation?

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3. Is there a significant relationship between students of girl and boy in terms of academic motivation?
4. Is there a significant relationship among the students in different academic courses in terms of self-regulation?
5. Is there a significant relationship among the students in different academic courses in terms of academic motivation?

## MATERIALS AND METHODS

### Method

This research in terms of the purpose type is practical and in terms of how to collect data is descriptive-correlative.

Descriptive research includes collection of ways that its objective is describing studied conditions or phenomena that in this study, self-regulation as a predictive variable and academic motivation as the criterion variable will be considered.

The statistical population of this study consisted of all students in field of theology sciences' high school of the second course in county of LARESTAN.

Number of persons in the study population totally consisted of 93 students: 49 girls and 44 boys belonged to Sadra's school.

Given number of the desired statistical population individuals is limited and review of total population is possible, thus, the total population individuals will be considered and for this reason, the sampling method isn't used.

**Table 1: The distribution of frequency with separation of course and school**

Educational course of school	The first of high school	The second of high school	The third of high school	Total number
Sadra girls school	20	13	16	49
Sadra boys school	22	10	12	44
Total	42	23	28	93

By using a standardized questionnaire of Buford self-regulation and Harter motivation, students responded to questionnaires.

Questionnaire was provided to subjects of both Sadra school of boys and girls. Before completing the questionnaire, necessary hints and explanations for how to respond to questions and also objectives of the study were presented to them.

Thus, it was said to subjects that by careful reading of the texts of the questionnaire and considering that this test has the effect on school evaluation, among the options available choose one answer and mark and in answer sheet and refrain to mark random and chance options.

For scoring, the Likert scale (from always to never) was used and sum of marked options according to their coefficient formed score of subjects.

Kadivar has reported reliability coefficient of self-regulation scale' Buford by using Cronbach alpha of 0.71 and has shown that this test is able to explain 52% of variance of self-regulation.

Lepere *et al.*, have reported reliability coefficient of scale for Harter academic motivation by using Cronbach's alpha method of 0.74 and have shown that this tool is satisfactorily and suggests stability in measuring academic motivation students (Sobhaninejad and Abedi, 2006).

Pearson correlation test to investigate the relationship between the research variables and independent t-test to evaluate comparison of the student girls and boys in terms of academic self-regulation and motivation were used.

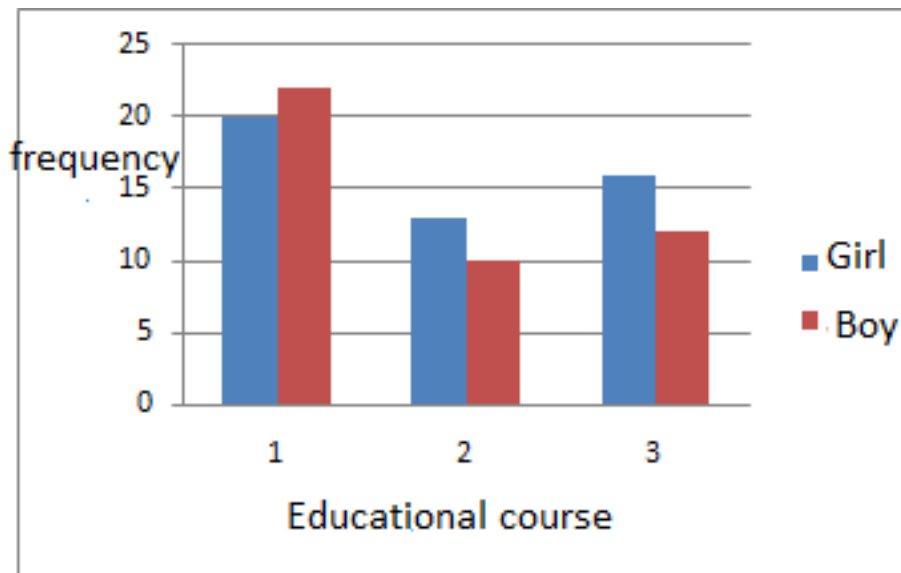
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To compare students in different academic courses in terms of academic self-regulation and motivation, one-way analysis of variance was used.

**RESULTS AND DISCUSSION**

**Findings**

According to observations, 52.69% and 47.31% frequencies are related to girls and boys, respectively. Distribution of individuals in terms of the course and gender has been also shown in the following diagram.



**Figure 1: Diagram of distributing individuals in terms of the course and gender**

Question 1: Is there a significant relationship between the academic self-regulation and motivation' students?

To answer this question, the Pearson correlation test has been used. This test studies correlation and power explaining the criterion variable (academic motivation) with a predictive variable (self-regulation).

**Table of Pearson correlation coefficient**

Correlations		xod tanzimi	Angizesh
xod tanzimi	Pearson Correlation	1	.521**
	Sig. (2-tailed)		.000
	N	93	93
Angizesh	Pearson Correlation	.521**	1
	Sig. (2-tailed)	.000	
	N	93	93

\*\**. Correlation is significant at the 0.01 level (2-tailed).*

As it can be seen, in a matrix called to the values of the Pearson correlation coefficient, value of the two-way significant level to test existence of the correlation or independence between two variables and the amount of observations (N) has been expressed.

As it is seen, the value of correlation coefficient for existence of associating each variable with its own number is 1 that is maximum correlation between the two variables and only when happens that two variables are exactly the same.

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**Table 2: Level's correlation coefficient (Pearson) and explanatory power**

Variables	Self-regulation	Explanatory power
Academic motivation	0.521	27.1%

As it is seen, between the variables of the academic self-regulation and motivation, independence is rejected assumption due to the existence of  $\text{sig.} = 0.000$  at a significance level.

The correlation coefficient among the variables of the academic self-regulation and motivation is equal to 0.521 and at  $\alpha = 0.01$  is significant that this means there is relationship between two variables and because the value of the correlation coefficient is positive, increases the other variable with the increase in each variables..

Also, each variable has 27% explanatory power of other variable.

Question 2: Is there a significant relationship between girls and boys in terms of self-regulation?

To answer this question, independent t-test has been used. This test examines intended mean gender groups (girl and boy).

**Table 2: Statistical group's girl and boy**

Test	Gender	Number	Average	Standard deviation	Average standard error
self-regulation	Girl	49	46.59	8.609	1.23
	Boy	44	47.93	7.419	1.118

The table provides information needed for t-test.

**Table 3: T-test for independent groups**

Test	Levene's Test		t-test				
	F	Sig.	T	Df	Sig. (2-tailed)	Average of differences	standard error among average of differences
self-regulation	0.747	0.390	0.8	91	0.426	1.34	1.67

The homogeneity of variances that is a prerequisite for test can be concluded from Levene's Test due to data of Table.

Despite the differences between the means and given the fact that T observed is less than critical T in significance level ( $\alpha = 0.05$ ), the results of independent t-test groups states that there isn't statistically, significant difference in the self-regulation amount of girl and boy students and presence of differences between these two averages is resulted from chance and random factors.

Question 3: Is there a significant relationship between students of girl and boy in terms of academic motivation?

To answer this question, independent t-test has been used. This test examines intended mean gender groups (girls and boys).

**Table 3: Statistical group's girl and boy**

Test	Gender	Number	Average	Standard deviation	Average standard error
academic motivation	Girl	49	105.20	14.739	2.106
	Boy	44	104.55	13.297	2.005

The table provides information needed for t-Test.



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**Table 4: T-test for independent groups**

Test	Levene's Test		t-test		Sig. (2-tailed)	Average differences	standard error of among average of differences
	F	Sig.	T	Df			
academic motivation	0.006	0.938	0.225	91	0.822	0.659	2.924

The homogeneity of variance which is a prerequisite for t-test can be concluded from Levene's Test. Despite the differences between the means and given the fact that T observed is less than critical T in significance level ( $\alpha = 0.05$ ), the results of independent t-test groups states that there isn't statistically, significant difference in the academic motivation amount of girl and boy students and presence of differences between these two averages is resulted from chance and random factors.

Question 4: Is there a significant relationship among the students in different academic courses in terms of self-regulation?

**Table 5: Uni-variate analysis related to the variable of self-regulation**

Source of changes	Sum of squares	Freedom degree	Average squares	of Test F	Level significance	of
Variable of self-regulation	Sum of Squares	df	Mean Square	F	Sig.	
Between Groups	583.698	2	291.849	4.880	.010	
Within Groups	5382.560	90	59.806			
Total	5966.258	92				

As it is seen in the table, F value observed because of being more than the critical F in the desired level of significance ( $\alpha = 0.05$ ) shows a statistically significant difference in amount of self-regulation in the different courses students and it can be inferred that the different courses are effective on the amount of individuals' self-regulation.

**Table 6: Tukey and Scheffe test to compare the means**

Dependent Variable: xod tanzimi				95% Confidence Interval			
(I) class	(J) class	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound	
Tukey HSD	avval	dovvam	3.529	2.006	.189	-1.25	8.31
		sevvom	5.762*	1.887	.008	1.27	10.26
	dovvam	avval	-3.529	2.006	.189	-8.31	1.25
		sevvom	2.233	2.176	.562	-2.95	7.42
	sevvom	avval	-5.762*	1.887	.008	-10.26	-1.27
		dovvam	-2.233	2.176	.562	-7.42	2.95
Scheffe	avval	dovvam	3.529	2.006	.218	-1.46	8.52
		sevvom	5.762*	1.887	.012	1.07	10.46
	dovvam	avval	-3.529	2.006	.218	-8.52	1.46
		sevvom	2.233	2.176	.593	-3.18	7.65
	sevvom	avval	-5.762*	1.887	.012	-10.46	-1.07
		dovvam	-2.233	2.176	.593	-7.65	3.18

\*. The mean difference is significant at the 0.05 level.

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Now that we realized difference in the amount of self-regulation in different courses, by using an appropriate test compare means also to being detected the amount of effect among courses.

According to the results of Table, mean of the first course is more than the second course showing the mean self-regulation scores of the first course students has the significant difference with third course in a significance level ( $\alpha = 0.05$ ); but there is insufficient evidence for existing the mean difference of students in this courses with the second course students in a desired significant level.

Also for the mean self-regulation scores of the second course students at a significance level ( $\alpha = 0.05$ ), there is insufficient evidence for existing mean difference of students in this course with the third course students in an intended significant level.

Question 5: Is there a significant relationship among the students in different academic courses in terms of academic motivation?

**Table 7: A uni-variate analysis of variance related to the variable of motivation**

Source of changes	Sum of squares	Freedom degree	Average squares	of Test F	Level of significance
Variable of motivation	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1019.1	2	509.550	2.694	0.073
Within Groups	17021.825	90	189.925		
Total	18040.925	92			

As it is seen, F value observed because of being less than the critical F in the desired level of significance ( $\alpha = 0.05$ ) indicates the statistically absence of significant difference in the level of motivation's the students in different courses and it can be inferred that being difference of courses has no effect on the amount of motivation's individuals.

$$F_{\text{motivation}} = 2.694 \geq F_{(0.05,2,90)} \Rightarrow \text{absence of rejecting the null hypothesis} \\ \Rightarrow \text{rejecting the research assumption}$$

**Conclusion**

According to previous researches, it can be said that self-regulated learning means more in learning particularly in its informal context or is associated with it. Self-regulation affects all context and environment of the classroom. Mechanisms governing education specially the informal learning is so that using strategies of self-regulation affects strongly the effectiveness of environment and the learning outcomes.

Thus, The Psychological assessment of education and mechanisms governing these educations type by using the learning role of self-regulation is a worthwhile topic and necessity of learning strategies and learning processes of self-regulation and motivate the instructors' arena of education both in the formal dimension of education (school) and in the informal dimension of training (life interactive environment) is felt. Discussion of findings about the relationship of academic self-regulation and motivation's students As it was observed in part of the results, the examination results of this question showed that there is a significant relationship between the academic self-regulation and motivation' students. The amount of this relationship and correlation is 0.521 and the explanatory power of the variables is 27%. These findings with the study of Sobhaninejad and Abedi that was found there is a significant relationship among self-regulated learning strategies and motivation of academic achievement with academic performance of students in mathematics, is consistent (Yasami *et al.*, 2013). Furthermore, it with the study's Kajibaf that was determined there is a significant relationship among motivational beliefs and self-regulated learning strategies' academic performance of high school students also coincides (Saeedipour *et al.*, 2013). Nejad, Taheri, Mohammadian and Vahedi also in their own study confirm being the significance the relationship between the academic self-regulation and motivation' girl students (Kajbaf *et al.*, 2003). The result of present study is consistent with the result of study's Saeedipour and Masoumi Fard (Cervone and Peake, 1986).

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In explaining this issue it can be noted students that use from greater self-regulation strategies, when teaching teacher or when studying try same time by making the significance of information, creation of logical connection with prior information, control how this process and create appropriate learning environment learn contents and raise their own academic performance.

On the other hand, Cervone and Peake claim that high self-regulation leads to produce motivation of improvement (Pintrich and Degroot, 1990).

Discussion about the findings of gender differences in relationship between the academic self-regulation and motivation' students

Statistical data analysis based on differences between girl and boy students about the academic self-regulation and motivation showed that in the level of significance ( $\alpha = 0.05$ ), there is no significant difference between the two groups.

These findings were consistent with the results' Pintrich and Degroot (Anderman and Young, 1994), Anderman and Yang (Linn and Hyde, 1989), and Line and Hyde. These researchers also in their own study had noted to absence of difference between girl and boy students in the area of internal valuation, cognitional strategies and self-regulation.

Discussion about the findings of differences in the academic self-regulation and motivation' different courses students

F test result showed that between academic motivation of subjects that have been separated based on educational course, there isn't significant difference and it can be said the various courses have effect on the motivation of individuals. But One-way ANOVA confirmed presence of differences between self-regulation of different courses students and then based on comparative tests of means, effect amount of average courses students also were determined. According to observations and calculations, the first course of high school has the most difference and impact.

Recommendation for individuals involved in education

Based on these results, it is worthy that it recommended to teachers and instructors of education to provide good conditions for growing self-efficacy and reducing anxiety of exam and by training learning strategies of self-regulation give to students, more opportunities to learn. Also by offering educational material in a manner that is placed in cognitive component of students with training Meta cognitive strategies for these students create proper learning environment.

Some suggestions for educational researchers and educators are mentioned as follows:

Respected educational expert:

- To organize the teachers in schools
- To monitor the performance of schools and study advance of goals and programs in accordance with the issued and related directives.

Respected expert of in-service and human resources:

- To hold in-service training classes self-regulation skills for teachers and educators
- To select the criterion and standards for selection of new people into the teaching profession

Respected expert of students' research center:

- To hold the self-regulation skills training classes for students which is also prerequisite for other skill.

Respected teachers and authorities of schools

- To close classroom activities to living context (skills training in addition to the concepts)
- To prepare students to gain skills of self-regulation (giving right of the choice, participation and activity to students)
- To propose and educate self-regulation skills in family education classes

Scholars and researchers:

- To conduct wider and more complete projects with more comprehensive community related to the factors affecting students' academic motivation, especially self-regulation skills
- To carry out similar studies in other courses
- To search and use newer and more up to date sources, especially journals with high impact and databases (e.g. ERIC)

## Research Article

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