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STUDY OF RELATION BETWEEN LEVEL OF ACADEMIC SUCCESS AND RATIONAL AND IRRATIONAL BELIEFS OF THE STUDENTS OF KARAJ BRANCH, ISLAMIC AZAD UNIVERSITY

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ABSTRACT

The relation between rational and irrational beliefs and the level of students' academic success is investigated in the current study. To assess the irrational beliefs, Jones Irrational Beliefs Questionnaire that was prepared on the basis of Ellis Rational and Emotive Theory was used to assess the irrational beliefs. The criterion for high academic success is to have a GPA higher than 17 and the criterion for low academic success is to have a GPA lower than 14 among students. In this study, the statistical society is all the active male and female students at Bachelor's level of Karaj branch, Islamic Azad University that were 540 students selected as the statistical sample from the list of all students of the university whose GPA was available. They were selected using systematic random sampling method and Jones questionnaire was given to them. The collected data of the sample group of the study was analyzed using statistical SPSS-18 software and t-test statistical method (significance test of difference of averages) and the results are given as follows: There is a significant difference between students' irrational beliefs and high and low academic success among them with the certainty level of more than 95% ($p < 0.05$). This means that the irrational beliefs of the students who have low academic level of success are higher than the students who have high academic level of success. The outcome of the findings of the current research indicates that there is a relation between the psychological factors such as self-confidence, self-belief, anxiety, control center, etc. and the students' level of academic success. There is a significant relation between the students' level of academic success and their irrational beliefs, and the students' (rational and irrational) beliefs hold an important position and capacity as a very important psychological structure to possibly anticipate the students' academic behaviors.

Keywords: Rational and Irrational Beliefs, Level of Academic Success, Students

INTRODUCTION

Human being needs to know himself or in other words to analyze himself in the present era in order to be able to know his ideas and thoughts and to establish a rational relation with the world inside and outside him and to establish a rational relation with the developments by adding order to his thoughts and having suitable feelings and rational ideas. Cognitive approach in psychology has been under attention a lot and is experienced more than any other approach. The idea in cognitive approach is that the type of ideas, thoughts and understandings of human beings lie in the origin of his behaviors (Ivey, 2010).

According to Albert Ellis theory (founder of rational-emotive theory), human being is a responsive and creative creature and is in charge of his deeds and emotions. He not only understands external stimuli, but also thinks about them simultaneously and starts creating concepts and interpretations of them. Ellis believes that what stimulate the individual's response to external stimuli are not the stimuli themselves, but the intellectual system and individual interpretation that determines the type of individual's response and behavior. If the person interprets these stimuli based on rational beliefs, he gives rational responses and if he interprets these stimuli based on irrational beliefs, he will show irrational responses (Ellis, 1993).

The academic success or failure of the students, particularly when the conditions to enter the university is considered as the best and most important option for progress of every young person in the society is highly notable so that it could be considered as one of the strategic issues and topics in our current

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society. Study of the reasons and description of the reasons for success and defeat of students in different scientific groups and courses where there are more than 4 million out of 75 million population of the society called as such has a special position due to the material, economic, social and cultural costs that the society tolerates, while production of science and scientific achievements stand at the least level. What is more notable than anything else is surely the growth and academic performance and creativity of the students that will get hold of the state scientific and management currents soon. The poverty of scientific products in our current society concentrates more than anything or anywhere else on the universities and scientific centers, particularly the students, and this principal question is raised as 'what variables and reasons could be presented to explain and describe their educational performance level scientifically. It seems that to study the factors and sources of academic success and failure of the students, some principal factors could be referred to as follows: Social and economic factors, Individual and psychological factors, Cultural and historical factors.

What is important for us in this scientific study is the attention to individual and psychological factors related to students' academic performance. Different researches were conducted in which several individual and psychological variables such as self-confidence, self-belief, anxiety, control center, documentary styles, approaches, psychological security feeling, rational and irrational beliefs similar to it could be referred to. It seems that analyzing the academic success and failure of the students from psychological point of views provides the directors and decision-makers with the opportunity as far as psychological factors are concerned to take practical and objective measures to control academic failure of the students with low costs. Thus in this research, we intend to study the relation between rational and irrational beliefs and the students' level of academic success among psychological factors. One of the reasons to select this factor is also the position and ability of the students' beliefs as a very important psychological structure to make likely predictions of their academic behaviors. It seems that the organization of human beliefs as it is defined in the rational and emotive theory by Ellis is considered less as one of the principal parameters to guide his behaviors and this important issue has been less noted in the studies regarding the students' academic success and failure. The studies were conducted regarding academic progress and failure among students and its relation with issues such as educational course, economic and social situation of students, open and governmental universities and issues of this type were studied. To study the research resources, it seems that as far as educational progress is concerned, little attention is paid to psychological factors to analyze the academic performance of students. It seems that it is necessary to study such issues and since it is an important subject, it has to be investigated from different angles. The student's educational performance, particularly under the current circumstances of the society can be studied from different aspects including professional, cultural and social aspects as well as acquiring higher social bases, social and economic movements, etc. But these will not answer the question. Although the ideal is that we could study all these factors in one research and to include them in the scope of our research, but what seems necessary to be done for the time being is to use the psychological perspectives to study the success and failure of students and among these the structure of rational and irrational beliefs of students as one of the psychological factors considering the importance of these beliefs according to cognitive theories, particularly Ellis rational-emotive theory to explain and anticipate the behaviors will become of double necessity.

Educational depreciation and its high rate in pre-university course as well as among students may be one of the most fundamental topics of the ones in charge of the Ministry of Education as well as Ministry of Science, Research and Technology and this issue is one of the important concerns of the directors and decision-makers of these two ministries. Although there are always positive views about increasing supports of governments for educational organizations and institutions and finds educational investments and investment in education and research investment for future the infrastructure of sustainable development when analyzing the educational investments in every society from the point of view of costs and benefits as well as return rate of educational investment, it should be noted that this claim is defensible once the lost opportunities and costs are minimized. Maybe if the government's investment in education and research is overlooked and investment is guided in this area to economic, industrial,

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agricultural and similar areas, we will witness an explosion in these sectors and thus considering the fact that they require capital, while not having the share of gross national production, the pathological analysis of the process of education and learning and teaching movement will be of special importance, and any study in this area, if it is conducted correctly and from any aspect could help the programmers infinitely including:

1. To prevent wasting the life of university students and school students as a result of educational depreciation.
2. To prevent losing opportunities particularly among the population which is ready to enter into the production flow.
3. To help software movement and production of science
4. To improve social and job functions of students.

Research Goals

Since Jones questionnaire depends on rational-emotive theory of Ellis, it has 100 questions (according to irrational beliefs in Ellis theory) and consists of 10 scales of 10 questions. Thus the goals of the research in the current study consist of one main goal and 10 specialist goals (according to the 10 scales of Jones questionnaire) as follows:

The main goal of this research is to study the relation between beliefs (rational and irrational) and students' level of academic success.

Specialized objectives

- To determine the relation between need to be loved, approved and respected of all individuals and the level of academic success in students.
- To determine the relation between the need to be highly qualified, perfect and very active and to feel valuable and the level of academic success in students.
- To determine the relation between the need to blame and punish intensively the wicked and mean people and the level of academic success in students.
- To determine the relation between the need of occurrence of incidents and happenings according to the students' will and the level of academic success in students.
- To determine the relation between the belief in external factors such as the cause of misfortune and dissent and the level of academic success in students.
- To determine the relation between the need to postpone the occurrence of dangerous incidents to avoid concern and students' level of academic success.
- To determine the relation between the need to avoid life problems and responsibilities and the students' level of academic success.
- To determine the relation between the need to rely and depend on others and the students' level of academic success.
- To determine the relation between belief of experience and incidents in the past as the determining factors of the current behavior and the students' level of academic success.
- To determine the relation between belief of the existence of one complete and correct solution for every problem and the students' level of academic success.

Considering the main and minor goals, the research hypotheses were presented. This study has one main hypothesis and 10 minor hypotheses as follows:

Main Hypothesis: There is a relation between students' (rational and irrational) beliefs and their level of academic success.

Minor Hypothesis

1. There is relation between need to be loved, approved and respected of all individuals and the level of academic success in students.
2. There is relation between the need to be highly qualified, perfect and very active and to feel valuable and the level of academic success in students.
3. There is relation between the need to blame and punish intensively the wicked and mean people and the level of academic success in students.

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4. There is relation between the need of occurrence of incidents and happenings according to the students' will and the level of academic success in students.
5. There is relation between the belief in external factors such as the cause of misfortune and dissent and the level of academic success in students.
6. There is relation between the need to postpone the occurrence of dangerous incidents to avoid concern and students' level of academic success.
7. There is relation between the need to avoid life problems and responsibilities and the students' level of academic success.
8. There is relation between the need to rely and depend on others and the students' level of academic success.
9. There is relation between belief of experience and incidents in the past as the determining factors of the current behavior and the students' level of academic success.
10. There is relation between belief of the existence of one complete and correct solution for every problem and the students' level of academic success.

Operational definition of concepts and variables of research

Since most of the words and terms have different meanings, the researcher has to define them in his study because it is possible for him to present some words or expressions in this study to the reader that are not noted by the researcher or do not make any sense for the reader. Therefore some of the used concepts and expressions in this study are defined as follows:

Irrational beliefs: Irrational beliefs according to Ellis is the same void thought, dream and illusion that leads to behavioral disorders (Shafieabadi, 2007). Irrational beliefs are the ideas by which the individual starts suffering from anxiety and psychological problem and the individual engaged with such ideas emphasizes on obligation and duty in his understandings and finds himself intensively committed to and restricted by the occurrence of special matters (Shafieabadi *et al.*, 2008).

Operational definition of irrational beliefs: In this study, irrational beliefs are the ones that are assessed by Jones Irrational Beliefs Test (IBT). The score that every individual receives according to this test identifies his irrational beliefs. The lowest grade of every individual in this questionnaire is 100 and the highest grade is 500.

Operational definition of academic success: Academic success in this study is the GPA of the course that the student has been studying at (Bachelor's level) and the students who hold the GPAs higher

Than 17 are considered to be highly successful in their academic studies and the ones who hold the GPAs lower than 17 are considered as the ones who are less successful in their academic studies. **Structure of beliefs and Ideas:** 1. Knowledge according to Islamic scholars: There are Muslim scholars who attach a special dignity for thoughts and their role in human behavior. In other words, some Muslim scholars find human's situation and mood dependent on his thoughts. Moulavi, the well-known poet and Gnostic says: -Oh, my brother, you are full of thoughts and the rest of you are just bones and roots.

If your thought is like a flower in a garden there is a thorn and you will be the stove of the bath.

2. *Knowledge as far as the Ancients is Concerned:* More studies about the reference framework of knowledge about theories go back the history of this movement with Ravaqi philosopher and Epictetus who said, "People do not get upset by incidents, but by the attitude they adopt." Thus changes to the way the people think about their surrounding environment became the major goal of cognitive and behavioral approach.

John Luck in his book under the title of 'a note on knowledge and thought of human being' raised a theory about knowledge of human being where he presented an explanation about how we know the world. Luck declared that the human's general knowledge comes from his experience and that human's mind could do two things: To receive experiences from external world and to think about them. He wanted to explain the superior mental processes such as thinking and reasoning by referring to the concept of thinking. Luck in the fourth edition of his book explained how experiences are put together by associating them to form the complicated thoughts and human beliefs. Hume also believed like Luck that the principle of association is vital to interpret the method of mental performance and intellectual processes. But Noel Kant studied the

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mental performance and processes. He believed that mind works innately and the intellectual processes are necessarily dependent on former experiences and learning. Wont and Teacher stressed on human's understanding of environment and its impact on their mental beliefs and functions and invented a method to study the mental concept and intellectual processes which is known as internal study method.

3. *Cognitive Approach in Modern Psychology*: Psychology has gone through many important changes since early 1950s. Theoretically speaking, one of the most interesting developments is the fall of behaviorism and the rise of cognitive psychology. What could be said for sure is that many issues under study in psychology such as worrying thoughts and mementos and stable mental engagements are in fact cognitive and the cognitive theories extend a considerable help to the change of clinical phenomena.

4. *Traditional Behaviorism Against Knowledge of Theories*: Traditional behaviorism studies the environmental events and the responses given to them by the organism according to its nature and does not care about what is going on between them. This approach does not refer to cognitive approach such as mementos, thoughts or expectations. Nowadays, some of the researchers of behaviorism believe that the traditional perspectives do not recall the entire story. People such as Bandura, Mahooni and Michel believe that the cognitive events are highly related to behavior.

5. *Human Identity in Rational-Cognitive Theory*: Ellis has different hypotheses about human nature. Shelling raises these hypotheses briefly as follows:

1. Human being has physical and psychological restrictions because of being human that might overcome these limitations, but it is not believed that he could go beyond his human limitations or achieve superior levels of awareness of being.

2. The main goal of life for all human beings is to survive and have a relatively happy life.

3. Happiness is a valuable option, but selection of long-term goals is more rational than selection of short-term goals and is considered as a wiser selection.

4. Human's behavior is determined and specified to some extent according to biological and social forces.

5. Cognitive-emotive theory is an existentialistic approach. The fact that people have generally created their own world and they are inclined to see how the worlds are looked at are the phenomena and mental images.

6. When human beings are born, they have controversial attitudes in them. They are highly inclined to be logical and to become satisfied, but meanwhile they are dragged toward illogical things and defuse their growth.

7. One of the strongest internal attitudes of human being is to be affected by his family, close friends and culture.

8. All human beings usually think and behave and their thoughts deeply affect their emotions and behaviors or create those thoughts and emotions.

9. Rational-emotive theory believes that in fact all the emotional disturbances do not come from incidents or experiences, but from the picture that people have of themselves.

6. Rational-emotive theory regarding personality, behavior and beliefs: In this theory, personality is looked at from three aspects and angles of physiological aspect, social aspect and psychological aspect and special ideas are presented in each of these three aspects regarding the individual's personality and behavior (Kersini, 1993).

1. *Physiological Ground*: In this theory it is believed that human being is naturally inclined to exceptional biological and powerful interests for thought and action in special manner and this manner could be logical or illogical.

2. *Social Ground: Rational*: Emotive theory finds human being a social being whose social life is necessary for him. On this basis, human should behave in the society according to the expectations of his and others' and should not be excessively self-centered and arrogant and should not stress on precedence a lot.

3. *Psychological Ground*: In this theory, it is believed that although human being is biologically very inclined to become anxious, to destroy self and to follow illogical thoughts and although he lives in a society where he causes some behavioral disorders and intensifies them, the psychological view of

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personality plays an important role to identify the method of growth of illogical thoughts and beliefs. According to the above view, when an activating/stimulating incident (a) happens for the individual, he could have two different and controversial understandings of (a) following his inherent inclinations: one is rational thoughts and beliefs (rb) and the other is irrational thoughts and beliefs (ib). If the individual follows rational thoughts and beliefs, he would achieve rational consequences (rc) and will have a healthy personality, but if the person goes after his irrational thoughts, he will face irrational consequences (ic) and will have an anxious, abnormal and unhealthy personality. The Figure 1 mentioned could be shown on the following table:

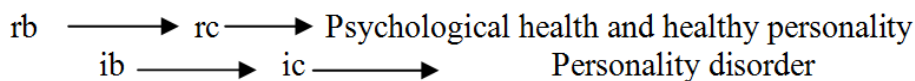


Figure 1

7. *Source of Control and Academic Progress*: In the theory of source of control that was developed by Jolian Rotter and about the individuals' belief system with regard to the reinforcing sources, it is assumed that individuals are classified into two categories as far as belief on sources of control are concerned (Rotter, 2008).

1. A group that associate their success and failure to themselves.
2. A group that associate their success and failure to external environmental factors.

8. *Self-Image and Academic Progress*: It could be generally said that self-belief is a set of individual beliefs regarding individual documents about self (Brehm and Kassin, 2011). In other words, self-belief is a set of beliefs and individual feedbacks about oneself that is mostly based on description rather than justification. On this basis, self-belief might be positive or negative (Moradi, 2007). For many of the personality theoreticians such as Carl Rogers, self-belief is the most important aspect of personality and a central status in human being (Gergen *et al.*, 2012).

Research History : Regarding the social-economic situation of the research that was conducted regarding the students' academic failure factors; it is shown that this issue is in connection with the family background. According to the factor analyses, factors such as less than average income, quality of housing, number of siblings, parents' job are effective on students' academic failure. This problem works the opposite as well. It means that the students' academic success is correlated with the economic status of the family, the degree of education and the parents' job. In other words, the GPA and scores of students increase when they move from deprived families toward wealthy families (Cornelivs and Cockburn, 2009; Qarekhani and Mehryar, 2012). In order to study the academic failure and its relation with the family grounds, a study was conducted by Khayer over a group of 439 students of primary school in Shiraz. The obtained results showed that the father's job affects the students' academic success or failure. Also another factor such as the degree of parents' education and the number of existing rooms has also considerable effect on the students' academic status (Khayer, 2011).

Also a study was conducted by Children Institute of Bangkok in 2012 on 25000 children. It was found out that the existing differences among students' results were in fact a reflection of differences of economic and social factors.

The research history and theoretical and research bases indicate that different psychological factors such as self-confidence, self-belief, anxiety, source of control, etc. are in connection with academic progress. But among the psychological factors, the factor of illogical beliefs and its relation with academic progress is noted less than before. We intend in the current research to study the method of relations between illogical beliefs and the level of academic success. Rezaqoli, Fahimeh, 2010 reports in a study about the relation between irrational beliefs and self-confidence that there is a reverse and negative relation between irrational beliefs and individual's self-confidence and that increased irrational beliefs reduce the individuals' self-confidence and vice versa so that reduced irrational beliefs increases the individuals' self-confidence.

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Since this study intends to investigate the relation between students' irrational beliefs and their academic success or failure and since the identity of these variables is in a way that the researcher is not entitled to change the independent variables (irrational belief) experimentally due to human and ethical issues and cannot study their effect on academic success (dependent variable) and on the other hand, it is not possible to precisely control the intervening variables in such a study, the existing results, i.e., students' level of academic success during their Bachelor's course should be taken into account and the relation between anticipating variables should be noted and the suitable method for such research is the cause and effect / comparative method. Study of the comparative assessment in this research concentrates on the two existing situations to make sure which one is superior to the other according to the special criterion. The statistical society in this study is all the male and female students at the Bachelor's level of different educational courses of humanities, experimental sciences, Physics/Mathematics of Karaj branch, Islamic Azad University in the academic year 2012-2013 that are mentioned in table 1 as far as the number and percentage of students are concerned.

Table 1: The number and percentage of students are concerned

	Number (N)	Percentage
Girl	16800	60
Boy	11200	40
Grand total	28000	100

Research sample consists of 540 male and female students at Bachelor's degree of Karaj branch, Islamic Azad University who are 216 male students (40%) and 324 female students (60%). Out of these 540 students, 348 have high academic success and 192 have low academic success and also out of the total testable sample, 304 are studying humanities, 172 are studying experimental sciences and 64 are studying Mathematics/Physics at Karaj branch, Islamic Azad University.

The sampling method in this study is of systematic type. It means that firstly the list of all the male and female students of the Bachelor's degree of Karaj branch, Islamic Azad University was prepared according to the level of their academic success (GPAs over 17 or GPAs under 17) and divided by their educational courses of humanities, experimental sciences and Physics/Mathematics using the university computer centre and eventually 540 students were selected randomly. They were tested, i.e., firstly in a random and systematic manner, the list of sample students was extracted from the existing list and then the students were identified through the relevant group and were tested.

Research tools are Jones Irrational Beliefs Test (IBT)

This questionnaire was prepared by Jones according to Albert Ellis theory and the different irrational beliefs were tested. This questionnaire consists of 100 closed questions out of 10 scales and each scale consists of 10 questions. Each scale measures one irrational belief in Ellis rational-emotive theory. The scales and questions relevant to them are as follows:

1. Demand for approval (DA) scale says that it is necessary for all the other members of the society to love, approve and respect me.
2. High self-expectations (HSE) scale says that the necessity for feeling of being valuable is being highly qualified, perfect and intensively active.
3. Blaming proneness (BP) scale says that there is a group of wicked and mean people who have to be punished intensively.
4. Frustration reactive (RF) scale says that if the incidents and happenings are not in away that I want, I will be intensively angry and helpless.
5. Emotional irresponsibility (EL) scale says that my misfortune and dissatisfaction is caused by external factors.
6. Anxious over concern (AO) scale says that dangerous and horrifying things cause extreme concern and it should always be tried to delay the possibility of their occurrence.

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7. Problem avoidance (PA) scale says that avoidance of some problems in life and personal responsibilities is easier than facing them.
8. Dependency (D) scale says that one should rely on others and rely on a stronger human because life without reliance on stronger individuals will be difficult and impossible.
9. Helplessness (HC) scale says that experiences and incidents in the past and the history of life determine the current behavior absolutely and the effect of the past on determining the current behavior cannot be overlooked at all.
10. Perfectionism (P) scale says that there is only one complete and correct solution for every problem and if human being does not reach it, it will be very horrible and tragic.

Validation coefficients

Number of testable items=50, Alpha=0.8562, number of questions=100 ($\alpha = \%86$)

Before the main implementation, test over 50 students such as the main sample that had a statistically acceptable coefficient was made and then the test was mainly implemented over the main sample.

Bernard says that this test has a very good validity. The validity of this test is measured in three ways:

1. Through its correlation with different tests that measure the emotive confusion.
2. Through its correlation with other relevant tests to irrational beliefs such as testing ideas or testing irrational behaviors.
3. Through testing the test sensitivity toward changes of individuals' beliefs which is prepared using therapy, rational, emotive and behavioral methods in the testable items (Bernard, 198).

Since the responses to the questionnaire have five choices (agree completely, agree relatively, not agree and not disagree, disagree relatively and disagree completely) and there is no correct and wrong answer, Cronbach's Alpha coefficient was used to calculate the coefficient of test validity through the following formula 1:

$$\alpha = \left(\frac{n}{n-1} \right) \left(\frac{s_t^2 - \sum s_i^2}{s_t^2} \right)$$

Formula 1

In this formula, as is the estimation of the test validity, n is the number of test questions, S_t is the variance of raw scores of testable items and S_i is the variance of scores of each of the questions and comments.

This study is considered as fundamental and applied (developmental) type of studies as far as its type is concerned and is in fact a post-event study. The scales of measurement in this study are of distance type. Considering the volume of the statistical sample and accepting the normality of distribution of the characteristics in the society, statistical parametric test was used to test the significance of difference of means (t-test).

Main Hypothesis: There is relation between beliefs (rational and irrational) and students' level of academic success. In table 2, the central indicators, dispersion and results of calculated t were mentioned to compare irrational beliefs among students with high and low levels of academic success.

Table 2

Recognition spot at two side test	Degree of freedom	Calculated t	Deviation Criterion	Mean	Number	Average	Irrational beliefs
0/023	538	2/280	29/971 36/063	178/19 284/80	348 192	high Low	

As table 1 shows the calculated t (2.28) with freedom degree of 538 was identified at significance level of 0.02 and this spot is smaller than maximum alpha (0.05) (p<0.05). Thus by certainty more than 95%, it

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could be claimed that there is a significant difference between students' irrational beliefs and the high and low levels of academic success, i.e, the H0 is rejected:

$$(H_0 : \mu_1 = \mu_2)$$

And the opposite hypothesis is approved

$$(H_0 : \mu_1 \neq \mu_2)$$

And the irrational beliefs of the students that have low academic success is higher than the students that have high academic success.

The First Minor Hypothesis: There is a relation between the need to be loved, approved and respected of all individuals and the students' level of academic success.

Table 3: Central indicators, dispersion, results of calculated t to compare irrational beliefs of scale 1 among students with high and low level of academic success

Recognition spot at two side test	Freedom degree	Calculated t	Deviation criterion	Average	Number	Average	Irrational beliefs
0/286	538	1/067	4/187	26/03	348	High	
			5/083	26/47	192	Low	

At table 3, the calculated t (1.06) with the freedom degree of 538 at 0.286 spot is known to be significant and this spot is higher than the maximum acceptable alpha (0.05) (P>0.05). Thus H0 is approved and

$$(H_0 : \mu_1 = \mu_2)$$

Therefore there is not a significant difference between the need to be loved and to be approved and respected by all and the students' level of high and low academic success and the H0 is rejected

$$(H_0 : \mu_1 \neq \mu_2)$$

The second minor hypothesis: There is a relation between the need to be highly qualified, perfect and very active and to feel valuable and the level of academic success in students.

Table 4: Central indicators, dispersion, results of calculated t to compare irrational beliefs of scale 2 among students with high and low level of academic success

Recognition spot at two side test	Freedom degree	Calculated t	Deviation criterion	Average	Number	Average	Irrational beliefs
0/01	538	2/664	4/342	29/17	348	High	
			3/962	33/33	192	Low	

As table 4 shows the calculated t (2.664) with freedom degree of 538 was identified at significance level of 0.013 and this spot is smaller than maximum alpha (0.05) (p<0.01). Thus by certainty more than 99%, it could be claimed that there is a significant difference between the need to be highly qualified, perfect and very active and to feel valuable and the level of academic success in students. This irrational belief is higher in the students that have low level of academic success than the students that have high level of academic success. Thus H0 is rejected:

$$(H_0 : \mu_1 = \mu_2)$$

And the opposite hypothesis is approved

$$(H_0 : \mu_1 \neq \mu_2)$$

The Third Minor Hypothesis: There is a relation between the need of wicked and mean people to be blamed and punished intensively and the students' level of academic success.

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Table 5: Central indicators, dispersion, results of calculated t to compare irrational beliefs of scale 3 among students with high and low level of academic success

Recognition spot at two side test	Freedom degree	Calculated t	Deviation criterion	Average	Number	Average
0/01	538	2/664	4/342	29/17	348	High
			3/962	33/33	192	Low

As table 5 shows the calculated t (2.276) with freedom degree of 538 was identified at significance level of 0.03 and this spot is smaller than maximum alpha (0.05) ($p < 0.01$). Thus by certainty more than 95%, it could be claimed that there is a significant difference between intensive blaming and punishment of mean and wicked people and high and low level of academic success in students. This irrational belief is higher in students that have low level of academic success than the students that have high level of academic success. Thus H_0 is rejected:

$$(H_0 : \mu_1 = \mu_2)$$

And the relevant minor hypothesis is approved

$$(H_a : \mu_1 \neq \mu_2)$$

The Fourth Minor Hypothesis: There is a relation between the need of occurrence of incidents and happenings according to the students' will and the students' level of academic success.

Table 6: Central indicators, dispersion, results of calculated t to compare irrational beliefs of scale 4 among students with high and low level of academic success

Recognition spot at two side test	Freedom degree	Calculated t	Deviation criterion	Average	Number	Average
0/005	538	3/042	4/793	26/60	348	High
			4/681	31/87	192	Low

As table 6 shows the calculated t (3.042) with freedom degree of 538 was identified at significance level of 0.005 and this spot is smaller than maximum alpha (0.05) ($p < 0.01$). Thus by certainty more than 99%, it could be claimed that there is a significant difference between occurrence of incidents and happening according to the students' will and the students' high and low level of academic success and the students' high and low level of academic success. This irrational belief is higher in the students that have low level of academic success than the students that have high level of academic success. Thus H_0 is rejected:

$$(H_0 : \mu_1 = \mu_2)$$

And the minor hypothesis is approved

$$(H_a : \mu_1 \neq \mu_2)$$

The Fifth Minor Hypothesis: There is a relation between the belief in external factors such as the cause of misfortune and dissent and the students' level of academic success.

Table 7: Central indicators, dispersion, results of calculated t to compare irrational beliefs of scale 5 among students with high and low level of academic success

Recognition spot at two side test	Freedom degree	Calculated t	Deviation criterion	Average	Number	Average
0/006	538	2/977	4/788	20/07	348	High
			6/383	26/20	192	Low

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As table 7 shows the calculated t (2.977) with freedom degree of 538 was identified at significance level of 0.006 and this spot is smaller than maximum alpha (0.05) ($p < 0.01$). Thus by certainty more than 99%, it could be claimed that there is a significant difference between belief in external factors as the factor of misery and dissent and students' high and low level of academic success. This irrational belief is higher in the students that have low level of academic success than the students that have high level of academic success. Thus H0 is rejected:

$$(H_0 : \mu_1 = \mu_2)$$

And the minor hypothesis is approved

$$(H_a : \mu_1 \neq \mu_2)$$

The Sixth Minor Hypothesis: There is a relation between the need to postpone the occurrence of dangerous incidents to avoid concern and students' academic level.

Table 8: Central indicators, dispersion, results of calculated t to compare irrational beliefs of scale 6 among students with high and low level of academic success

Recognition spot at two side test	Freedom degree	Calculated t	Deviation criterion	Average	Number	°Average	Irrational beliefs
0/437	538	0/778	7/214	30/74	348	High	
			7/281	30/23	192	Low	

As table 8 shows the calculated t (0.778) with freedom degree of 538 was identified at significance level of 0.437 and this spot is higher than maximum alpha (0.05) ($p < 0.01$). Thus H0 is rejected:

$$(H_0 : \mu_1 = \mu_2)$$

And the minor hypothesis is approved

$$(H_a : \mu_1 \neq \mu_2)$$

Thus there is not a significant relation between the need to postpone the occurrence of dangerous incidents to avoid concern and the students' high and low level of academic success.

The Seventh Minor Hypothesis: There is a relation between the need to avoid life problems and responsibilities and the students' level of academic success.

Table 9: Central indicators, dispersion, results of calculated t to compare irrational beliefs of scale 7 among students with high and low level of academic success

Recognition spot at two side test	Freedom degree	Calculated t	Deviation criterion	Average	Number	°Average	Irrational beliefs
0/041	538	2/139	4/454	19/53	348	High	
			4/424	23/00	192	Low	

As table 9 shows the calculated t (2.139) with freedom degree of 538 was identified at significance level of 0.041 and this spot is smaller than maximum alpha (0.05) ($p < 0.01$). Thus by certainty more than 95%, it could be claimed that there is a significant difference between need to avoid problems and life responsibilities and students' high and low level of academic success. This irrational belief is higher in the students that have low level of academic success than the students that have high level of academic success. Thus H0 is rejected:

$$(H_0 : \mu_1 = \mu_2)$$

And the minor hypothesis is approved

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$(H_0 : \mu_1 \neq \mu_2)$

The Eighth Minor Hypothesis: There is a relation between the need to rely and depend on others and the students' level of academic success.

Table 10: Central indicators, dispersion, results of calculated t to compare irrational beliefs of scale 8 among students with high and low level of academic success

Recognition spot at two side test	Freedom degree	Calculated t	Deviation criterion	Average	Number	Average	Irrational beliefs
0/022	538	2/429	5/431	30/27	348	High	
			4/273	34/60	192	Low	

As table 10 shows the calculated t (2.429) with freedom degree of 538 was identified at significance level of 0.022 and this spot is smaller than maximum alpha (0.05) ($p < 0.01$). Thus by certainty more than 95%, it could be claimed that there is a significant difference between need to rely and depend on others and the students' high and low level of academic success. This irrational belief is higher in the students that have low level of academic success than the students that have high level of academic success. Thus H_0 is rejected:

$(H_0 : \mu_1 = \mu_2)$

And the minor hypothesis is approved

$(H_0 : \mu_1 \neq \mu_2)$

The ninth minor hypothesis: there is a relation between belief of experience and incidents in the past as he determining factors of the current behavior and the students' level of academic success.

Table 11: Central indicators, dispersion, results of calculated t to compare irrational beliefs of scale 9 among students with high and low level of academic success

Recognition spot at two side test	Freedom degree	Calculated t	Deviation criterion	Average	Number	Average	Irrational beliefs
0/007	538	2/928	5/486	28/33	348	High	
			2/828	33/00	192	Low	

As table 11 shows the calculated t (2.928) with freedom degree of 538 was identified at significance level of 0.007 and this spot is smaller than maximum alpha (0.05) ($p < 0.01$). Thus by certainty more than 99%, it could be claimed that there is a significant difference between belief of experience and incidents in the past and the students' high and low level of academic success. This irrational belief is higher in the students that have low level of academic success than the students that have high level of academic success. Thus H_0 is rejected:

$(H_0 : \mu_1 = \mu_2)$

And the minor hypothesis is approved

$(H_0 : \mu_1 \neq \mu_2)$

The Tenth Minor Hypothesis: There is a relation between belief of the existence of one complete and correct solution for every problem and the students' level of academic success.

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Table 12: Central indicators, dispersion, results of calculated t to compare irrational beliefs of scale 10 among students with high and low level of academic success

Recognition spot at two side test	Freedom degree	Calculated t	Deviation criterion	Average	Number	Average	Irrational beliefs
0/020	538	2/472	4/406	29/47	348	High	
			3/688	25/80	192	Low	

As table 12 shows the calculated t (2.472) with freedom degree of 538 was identified at significance level of 0.02 and this spot is smaller than maximum alpha (0.05) ($p < 0.01$). Thus by certainty more than 95%, it could be claimed that there is a significant difference between belief of existence of one complete and correct solution for every problem and the students' high and low level of academic success. This irrational belief is higher in the students that have low level of academic success than the students that have high level of academic success. Thus H_0 is rejected:

$$(H_0 : \mu_1 = \mu_2)$$

And the minor hypothesis is approved

$$(H_0 : \mu_1 \neq \mu_2)$$

The Eleventh Minor Hypothesis: There is a relation between irrational belief of the students of educational groups of humanities, experimental sciences and Physics/Mathematics.

Table 13: Central indicators, dispersion, results of calculated f to compare irrational beliefs among students of educational groups of humanities, experimental sciences and Physics and Mathematics

Identification point	F	Square averages	of Freedom degree	Total squares	
0/014	4/302	4459/158	2	8918/316	Inter -groups
		1036/476	537	556587/79	Intra-groups
			539	565506/10	Grand total

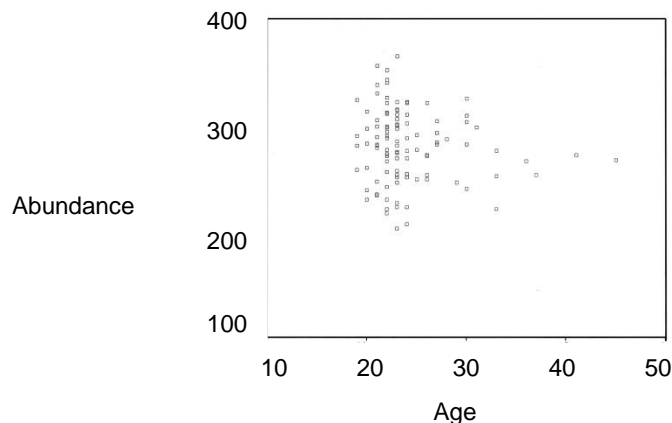
Identification point	Error of deviation criterion	Mean difference	Second course	First course	Examination after Scheffe test
0/031	3/072	8/13*	Experimental/mathematics	Humanities	
0/017	4/428	8/35*			
0/031	3/072	-8/13*	Humanities/Mathematics	Experimental sciences	
0/999	4/714	0/22	cs		
0/017	4/428	-8/35*	Humanities/Experimental	Mathematics	
0/999	4/714	-0/22	tal		

The Twelfth Minor Hypothesis: There is relation between students' irrational beliefs and their age.

Table 14: Relation between correlation of irrational beliefs and students' age

Beliefs	Age		
-0/126*	1	Pearson correlation	Age
0/004	0	Identification point of two scopes	
508	508	Number	Beliefs
1	-0/126*	Pearson correlation	
50	0/004	Identification point of two scopes	
540	508	Number	

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RESULTS AND DISCUSSION

The results of this study confirm the main hypothesis of the research and indicate that there is a significant difference between students' irrational beliefs and their high and low level of academic success. It should be noted that the level of irrational beliefs of successful students (from educational point of view) is significantly lower than the students of unsuccessful group.

According to Ellis rational-emotive theory, what stimulates the individual's response to external stimuli is not the stimuli themselves, but the individual's system of thinking and interpreting which determines the type of individual's response and behavior. If the individual interprets these stimuli according to rational beliefs, he shows rational responses and if he interprets them according to irrational beliefs, he shows irrational responses. According to Ellis, human being is impressed by generalizations and philosophies and is fanatic about them so that his understanding from the next stimuli and experiences is in a completely deviating and personal manner. In other words, Ellis finds human beings suggestible, vulnerable and deceivable beings. In fact Ellis finds the learning theory of stimulus-response rejected and thinks about human beings mostly according to learning theory (S-O-R) (Ellis, 1993; Patterson, 1996; quoted by Shafieabadi).

Now the raised question is whether the set of existing stimuli in the students' academic conditions specifies their academic success. According to Ellis point of view, it is not the case, but the individuals can intervene between what they get from environment and their emotional outcome and have a considerable control over their thoughts, emotions and actions (Shafieabadi, Naser, 2009). Thus the type of beliefs that the students have about the different educational conditions and incidents leads to their educational progressive behavior as well as their academic failure. On this basis, it could be said that eleven illogical beliefs (in Ellis theory) have entered into the educational conditions so that they could cause academic success or failure. As the scientific ideas and scientific texts about relation between irrational beliefs and academic progress show, there is a negative relation between irrational beliefs and academic success and this was also confirmed by the current study.

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