

# THE RELATIONSHIP BETWEEN SELF-EFFICACY AND SELF-PERCEPTION WITH ANXIETY OF EXAMINATION IN HIGH SCHOOL STUDENTS

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#### **ABSTRACT**

The aim of this study was to investigate the relation of self-efficacy and self-perception with anxiety of examination among students of Zahedan. The method used in this research was correlation. The statistic population of this study was all of the high school students of Zahedan. The number of the samples of this study was 320 students that were chosen by random cluster sampling method. Research instrument were the questionnaires of self-efficacy believes, Philips' scale of anxiety of examination and self-perception. The results showed that a negative significant correlation exists between the self-efficacy believes and the anxiety of examination. A significant positive correlation also exists among the anxiety of examination and the three factors of self-perception, passive, actorness and aggressive. The results of stepwise regression showed the passive self-perception, alone, can predict .25 of variances of the anxiety of examination and with actorness self-perception they can predict .29 of variances of anxiety of examination. In addition the results showed that the self-efficacy believes of male were more than female students. Also female students' anxiety of examination was more than male students.

**Key Words**: Self-perception, self-efficacy, anxiety of examination and student.

#### **INTRODUCTION**

Zidner defined anxiety of examination as mental engagement which is clarified by doubt about one's abilities. It mostly results in one's negative cognitive assessment, undesirable physiologic reactions and educational drop (Sepehrian and Rezayi, 2010). The researchers showed that anxiety of examination is related with educational achievements. Anxiety of examination has destructive effects on concentration, excitement and the quality of learning (Pekrun, 2004). Hagtvet, Man, Sharma, (2001) believe that anxiety of examination is an outcome of cognitive assessment and individuals' self assessment which is a part of a wider assessment. Self-efficacy is as individuals' judgment about their abilities that cause to organizing and performance some efforts to achieve aimed functions (Pintrich and Shank, 2007).

There is an interaction between this attitude and learning. The effects of high self-efficacy result in tendency to steady in tasks, emphasis on problem solving strategies and reduction of anxiety of examination (Stipek, 2001). Most of theoretical models of progress motivation consider individual's beliefs as a fundamental determinant for progress. Indeed the assumption of all of these theories is that the individuals' expectations towards success and their perception of their abilities have a very important role in their motivation (Pourgonabadi, 2008). Individuals with low self-efficacy have pessimistic thoughts toward their own abilities therefore they avoid of any situation which they think it is more than their abilities. On the other hand, individuals with high self-efficacy challenges with difficult task (Sarvghad, Rezayi and Ma'soumi, 2010). Self-efficacy differs according to age and gender, that is, boys have higher self-efficacy than girls Perception of self-efficacy affects the choice, effort, resistance, function and emotion. High self-efficacy has a positive relationship with better health condition (Sarvghad, Rezayi and Ma'soumi, 2010). Various factors such as



demographic, cultural s and psycho-socio factors affect on the self-efficacy and self-perception. For example researches in Eastern Asia showed that subjects with low self-efficacy had a high anxiety in mathematics test although they gained high scores in it. On the other hand, Western Europe subjects such as Finland, Sweden and Netherlands, gained high scores in mathematics and showed low anxiety (Lee, 2009).

Pintrich and Shank (2007) have done a wide research on self-imagination and educational achievement and concluded that it is hesitated that intelligence and ability could lead to achievement, because student's self-perception is effective in academic achievement (Pintrich and Shank, 2007). Chevalier, Gibbons, Thorpe Snell, and Hoskins (2009) showed that those who have more positive perception about their abilities in school are probably more able to continue higher education. Self-efficacy is an important and basic source in motivate children's perception. Zimmerman (2004) reported that psycho-socio evidences showed that family and peers effects on children's self-efficacy beliefs, their expectance and the level of their self-assessment. Many studies had revealed the positive relation between self-efficacy beliefs and academic achievement. In most of these studies this relation is in such a way that self-efficacy beliefs play the role of an intermediate variable between academic achievement and the variables such as past experiences, cognitive ability, gender. Results of a meta-analytic research had shown the relationship between self-efficacy and academic achievement as .38 (Naghsh, Ghazi Tabatabayi and Ali Tarkhan, 2010). Thus it is believed that examination anxiety is one of the important predictors of academic achievement and also learning which have a positive relation with self-perception and self-efficacy.

Low self-perception in assessment situations usually causes anxiety. A child with examination anxiety is described as a person who "has a humiliation perception about himself and predicts his failure in a test and so cannot achieve the criterion of himself or the others' performance and construes the situation undesirable". Extra anxiety is a threat for student's self-confidence (Stipek, 2001). On the other hand, individuals with high anxiety usually doubt in their abilities to produce suitable outcome. These doubts cause pessimistic self-assessment and so take away their problem solving ability. Hong and Karstensson (2002) studies showed that high-achieving students in contrast with low-achieving students possess higher perceptional self-efficacy beliefs (Pourgonabadi, 2008). Bendora believes that examination anxiety occurs in a social background. A part of this mechanism that affect examination anxiety is early childhood patterning and observe learning (Mehrabizade et al, 2000). There is a negative relation between examination anxiety and self-efficacy. There are many researches held about examination anxiety regarding gender. Di and Di (1990) survey showed that girls more than boys experience anxiety. Female students in Statistic course reported more anxiety than male students, and students with low perception abilities in mathematics also reported Statistics as a hard course, that strongly affected their examination anxiety in Statistics (Hang and Karstensson, 2002).

The perceived sources of students' examination anxiety were investigated quantitatively and qualitatively to assess the students' perception (Bonaccio and Charlie; 2010). Many studies have been inducted about the results of examination anxiety but the studies on the causes of this anxiety are not enough yet. It was pointed out in a research (Bonaccio, Charlie, Reeve and Jennifer. 2008) that a variable such as self- confidence is one of the most important internal variables which have relationship with examination anxiety. Other internal factors which have been investigated by Moosavi et al (2008) consisted of region of education system, the number of the students in a class, the reactions of school staffs, teachers and parents toward students' drop down that in turn, had a significant positive correlation with students' examination anxiety. Accordingly, the current study is aimed to investigate the relationship between self-efficacy believe and self-perception with examination anxiety. The research questions in this study are as follow: 1) Is there a significant correlation between self-efficacy believe and examination anxiety? 2) Is there a significant correlation between self-efficacy believe and self-efficacy believe is a better predictor for students' examination anxiety? 4) Whether there is a difference between self-efficacy believe, self-perception and examination anxiety variables regarding different genders?

#### **METHODOLOGY**

Research method of this study is correlation. The high school students in Zahedan were the statistical population. The sample was consisting of 320 students (160 female, 160 male) that were randomly chosen by the cluster random method. The data was collected by questionnaire.

#### Instruments

- 1. Examination anxiety questionnaire: Philips' examination anxiety questionnaire (1979) was used which contains 26, Yes or No, two choices questions. This questionnaire has been examined on 30 students in Iran and its validity and reliability was reported as acceptable (Naderi, 2008). In this research, the questionnaire reliability of Cronbach's alpha was .81 for 79 subjects.
- 2. Self-perception questionnaire: self-perception questionnaire help individuals to see how they thinks or feels about their self or the others and how they behaves with the others. Self-perception questionnaire was prepared by Townend (2002) which contain 60 questions and measures four factors: passiveness, aggression, assertiveness and actorness. In this study the reliability was measured by Cronbach's alpha method that obtains as .75 for 80 subjects. In its components the consistency coefficients were .62 for passiveness factor, .54 for aggression, .57 for assertiveness and .66 for actorness.
- 3. General self-efficacy questionnaire: this questionnaire contains 10 questions with a Likert scale for answers. Cronbach's alpha was measured as.82 on Ahvaz University students (Islami, 2008). Sarvghad, Rezayi and Ma'soumi (2010) reported that "self-efficacy questionnaire has a suitable validity and has positive correlation with self-esteem and optimism and it has negative correlation with anxiety and depression.

The statistical methods were step-wais regression analysis, Pearson Correlation and t-test for independent group.

#### **RESULTS**

To examine the relationships of the components of both self-perception and self-efficacy believe with examination anxiety in students by using Pearson Correlation method, the results are in the following table.

Table 1: the results of relationship among research variables and examination anxiety

Variables	Test Anxiety		
Self-efficacy Believe	-0.205**		
Self-perception	0.45**		
Passiveness	0.428**		
Aggression	0.328**		
Actorness	0.405**		
Assertiveness	-0.047		

<sup>\*\*</sup>P≤ 0.01 N=320

According to the Table 1, there is a significant negative relationship between students' examination anxiety and self-efficacy believes (r = -0.205,  $P \le 0.01$ ). That is, as the self-efficacy increases the students examination anxiety decreases.

Also Table 1 show that there is a positive relation between examination anxiety and self-perception and its components such as passiveness, aggression and actorness with students test anxiety in  $P \le 0.01$  level. But there was not a significant relation between assertiveness factor and students' examination anxiety.

In order to find which one of four components of self-perception (passiveness, aggression, actorness and assertiveness) and self-efficacy believe is a better predictor for students' examination anxiety a step wise regression method was used. Because the results of the Dorbin test were between 1.5 and 2.5, regression method is suitable. The summary of the results of regression model is shown in table 2.

Table 2: The summary of the results of regression model

step	variable	R	R <sup>2</sup>	Standard β	F	Dorbin
1	passiveness	0.50	0.25	0.50	63.5**	1.78
2	Passiveness + Actorness	0.54	0.29	0.24	10.5**	

<sup>\*\*</sup>P≤ 0.01

The results of table 2 indicate that the passiveness factor is the strongest variable that has been arrived in regression model. This factor predicts .25 of the examination anxiety variances. In second step with the entrance of actorness factor in regression model the portion of prediction increases .04, that is, both factors of passiveness and actorness predict .29 of examination anxiety variances.

To study the difference between self-efficacy believe, self-perception and students' examination anxiety according to gender differences a independent t-test method was used. The results are presented in the following table.

Table 3: Result of comparison of the variables according to gender differences.

Variable	gender	mean	t
Self-efficacy Believe	Girl	39.35	2.61**
	Boy	41.41	
Test Anxiety	Girl	42.007	3.13**
	Boy	39.86	
Self-perception	Girl	121.9	1.87
	Boy	119.8	
passiveness	Girl	30.13	1.97*
	Boy	29.33	
Actorness	Girl	28.97	2.175*
	Boy	28.09	
Aggressive	Girl	28.16	0.284
	Boy	28.28	
Assertiveness	Girl	36.37	1.69
	Boy	34.99	

As it is shown in table 3 self-efficacy mean among boy students (M=41.41) is more than girl students (M=39.5). Also the girl students examination anxiety mean is M=42.0 which is more than that of boys (M=39.86). The amount of passiveness mean among girl students (M=30.13) is higher than boys passiveness amount (M=29.33). Actorness perception mean of girls is also higher (M=28.97) than boy students (M=28.09). But aggression and assertiveness means did not have any significant difference between boys and girls.

#### **DISCUSSION**

The results show that there is a significant negative relationship between self-efficacy and students' examination anxiety. That is, as the self-efficacy believes increases the students' examination anxiety decreases. The current result shows that those who always have doubt in their appropriate output, they suffer from pessimistic assessments about themselves. Therefore they lose their problem solving abilities and as a result their anxiety level increases. Bandura (2003) argued that self-doubt can easily affect one's abilities. Self-efficacy believes enables individuals to do extraordinary acts by using their abilities. This result is supports from the results of Mehrabizade Honarmand, et al (2000) researches which have shown that examination anxiety has a negative correlation with self-efficacy.

The results of current study also showed that there is a significant positive relation between examination anxiety and three factors of self-perception, passiveness, aggression and actorness. It means that if these three factors increase the examination anxiety also increases. Fontana (2002) found that one's self image is not an innate image. Self image of every child is learned. If a student thinks that he/she is a weak student, he/she will suffer examination anxiety.

The results of this study also showed that passiveness and actorness among other factors of self-efficacy and self-perception are better predictors for the students' examination anxiety. These two factors together predict .29 of examination anxiety variances. In a study, Bonaccio, Charlie and Charles (2008) indicated that self-confidence is one of the most important inter-personal variables that is in relation with examination anxiety. Examination anxiety is a cognitive construct that due to fear of assessment (Sepehrian and Rezayi, 2010).

The results of this study also showed that assertiveness factor did not have any significant relation with examination anxiety. Assertiveness is a positive characteristic which is resulted by self-confidence and responsibility. When a student feels confident in an examination situation and has a positive perception about him/herself, he/she performs firmly in a problematic situations (examination anxiety) and solves his/her problems.

Bandura (2003) argued that self-efficacy is a constructive ability by which cognitive, social, emotional and behavior skills are structured efficiently. In his point of view, knowledge, abilities and experiences does not predict future functions of someone, but his/her believes in his/her abilities are determine his/her performances.

The results of current study does not reject the role of self-efficacy believe in examination anxiety, but shows that self-perception is a more effective factor rather than self-efficacy believe in predicting of examination anxiety. Self-perception is a wider factor than self-efficacy believes. Self-efficacy believes is the ability in one field but self-perception is the student's understanding from his/her being. It means that if someone has a passive, aggressive or actorness perception about him/herself, he/she cannot be sure about his/her self-efficacy and therefore this affect his/her examination anxiety.

The results also showed that there is a significant difference between the self-efficacy believes of boy and girl students. Boys' self-efficacy believes is higher than that of girls. Girls' examination anxiety is higher than that of boys. Also there was a significant difference between boys and girls according to passiveness and actorness factors; but in two other factors namely aggression and assertiveness there was not a significant difference according to gender.

This result support of Mehrabizadeh et al (2000) findings which showed examination anxiety in girls is higher than that in boys. Talkman, Sakstoon and Shang result that self-efficacy is different among genders and males'



self-efficacy is higher than that in females. Pajariz and Miller also showed that self-efficacy of boys is higher than that in girls (Sarvghad, Rezayi and Ma'soumi, 2010). This gender differences are because of socialization that girls are encouraged to show anxiety. On the other hand boys deal with anxiety protectively, because it is known as a threat to manly behaviors (Biabangard, 1999). Bali Lashak showed that there is no significant correlation according to the field of study and gender on educational self-efficacy believes and general self-efficacy believes (Pourgonabadi, 2008). Theoretical and experimental result of Hsu, Wang and Chiu (2009) study showed that there is a negative relationship among attitudes, self-efficacy believes and examination anxiety. On prevalence of examination anxiety base on gender Di and Di (1990) and Hong and Karstensson (2002) showed that girls more than boys suffer from examination anxiety.

It is proposed that teachers give feedback to efforts of students not to results of their tasks. Also they use of the models that enhance self-efficacy believes and decline the self perception as passiveness and actorness.

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#### **REFERENCES**

Bandura, A. (1982). Self-Efficacy Mechanism in Human Agency. American Psychology, 37, 122-147.

Biabangard, E. (1999). Examination Anxiety. Tehran: Farhang Publication.

Bonaccio, S. and Charlie, L. R. (2010). The Nature and Relative Importance of the Source Sstudents' Perceptions. *Learning and Individual Differences*. Article in Press.

Bonaccio, S.; Charlie L. R. And Charles, J. E. (2008). Policy-Capturing Study of the Contextual Antecedents of Test Anxiety. *Personality and Individual Differences*. 45(3), 243-248.

Chevalier, A.; Gibbons, S.; Thorpe, A.; Snell, M. and Hoskins, S. (2009). Students' Academic Self-Perception. *Economics of Education Review*. 28(6), 716-727.

Di, M. F. and Di N. S. (1990). Gender Differences in Social and Test Anxiety. *Personality and Individual Differences*. 11(5), 525-530.

Fontana, D. (2002). *Psychology for serving teachers, Personality and Morality*. Translated by Ebrahimigavam. Tehran: Tarbiat Monadi Farhangi Publication.

Hagtvet, K. A.; Man, F.; Sharma, S. (2001). Generalizability of Self-Related Cognitions in Test Anxiety. *Personality and Individual Differences*. 31(7), 1147-1171.

Hong, E. and Karstensson, L.(2002). Antecedents of State Test Anxiety. *Contemporary Educational Psychology.* 27(2), 348-367.

Hsu, M. K., Wang, S., Chiu W. and Kevin, K. (2009). Computer Attitude, Statistics Anxiety and Self-Efficacy on Statistical Software Adoption Behavior: An Empirical Study of online MBA learners. *Computers in Human Behavior*. 25(2), 412-420.

Islami, N. (2008). Relationship of Teacher Anticipate and Self Efficiency of Students with their Academic Achievement in High School of Birjand City. Dissertation for Postgraduate in Educational Psychology. Birjand: Azad University, Branch of Birjand.

Lee, J. (2009). Universals and Specifics of Math Self-Concept, Math Self-Efficacy, and Math Anxiety across 41 PISA 2003 Participating Countries. *Learning and Individual Differences*. 19(3), 355-365.

Mehrabizade, Honarmand, et al. (2000). Prevalence of Examination Anxiety and its Relationship with Self-efficiency and Placement of Control in it with Regard to Intelligence Variable. *Education and Psychology of Shahid Chamran of Ahvaz University Journal*, 3 (1, 2), 55-72.

Moosavi, M., Haghshenas, H., Alishahi, M.J., Najafi, S.B. (2008). Examination Anxiety and Some of Personal and Social Factors that Related to it in Students of High schools of Shiraz. *Behavioral Sciences Journal*, 6 (1), 17-25.

Naderi, A.R. (2008). Effects of Mental Immune on Decrease of Examination Anxiety in Girl Students of Third Grad of Gonabad High schools. Dissertation for Postgraduate in Clinical Psychology. Birjand: Azad University, Branch of Birjand.



Naghsh, Z., Ghazi Tabatabayi, M., Ali Tarkhan, R. (2010). Model of Structure of Relationship of Self -Efficiency, Perceived Usefulness and Academic Achievement: a Study on Intervention of Self Regulation. *Advances in psychological Sciences*. 12 (1), 1-16.

Pintrich, P. and Shank, D. (2007). Motivation in Education. Translated by Shahrara. Tehran: Elm Publication.

Pourgonabadi, H. (2008). Cooperative Students on Intelligence Believe and Self-Efficacy Collage Students with High and Low Academic Achievement. Dissertation for Postgraduate in Educational Psychology. Birjand: Azad University, Branch of Birjand.

Pekrun R. (2004). Test Anxiety and Academic Achievement. *International Encyclopedia of the Social & Behavioral Sciences*. 15610-15614.

Sarvghad, S. Rezayi, A. and Ma'soumi, F. (2010). Relationship between Thinking Styles and Self-efficiency of Girl and Boy Students of Colleges in Shiraz. *Women and Society Journal*, 1(4), 133-154.

Sepehrian, F. Rezayi, Z. (2010). Prevalence of Examination Anxiety and Treatment Confrontation for Decline it and Increase Academic Performance in Girl Students of High Schools. *Research in Curriculum Journal*, 1 (25), 65-80

Stipek, D.J. (2001). *Motivation for Learning: from theory to practice*. Translated by Hasanzadeh and Amooei. Tehran: Doniaie Pazhohesh Publication.

Townend, A. (2002). Developing Assertiveness. Translated by Naziri, Mola. Mashhad: Behnashr Publication.

Zimmerman, B. J. (2004). Social Learning, Cognition, and Personality Development. *International Encyclopedia of the Social & Behavioral Sciences*, 14341-14345.