

Study of Individual Factors Influencing on Academic Achievement Motivation in High-School Female Students

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ABSTRACT: The present paper is a research seeking for analysis of individual factors influencing on academic achievement motivation in high school female students. To do this research and regarding the discussed question, correlation method in structural equation model was used. 16-AMOS software was used for analysis and statistical calculations of the proposed model. The study subjects were 384 students that were selected using the stratified random sampling method from the students of district 1 and district 2, respectively, as 207 and 177 students. Data collection was performed through two classes of questionnaires, one related to individual factors, and another regarding the academic achievement motivation. The results show that each of the individual factors plays a decisive role in prediction of academic achievement motivation.

Keywords: Individual Factors, Academic Achievement Motivation, Structural Equation Modeling.

ORIGINAL ARTICLE

INTRODUCTION

Researchers believe that achievement motivation is the main element of the human features that directs the personal activity and creates more or less dynamics. In fact, the students with high achievement motivation prefer the assignments and opportunities that can influence on them and can be completed successfully, but the students with low achievement motivation are not self-confident and provide their defeat context (Unierzyski, 2003). Motivation prepares the student to receive specific motives. Several factors such as change, repeat and newness rate significantly influence on drawing the attention, but what focuses the student's attention and concentration on a certain matter for a certain time is his/her motivation and interests. From an education point of view, motivation and interest form the starting point of activities. The student needs to be interested in a specific subject in order to pay attention to it. The relation between scholastic materials and the basic needs of students also draw their attention to the scholastic materials and satisfy them (Spalding, 2006, p 33). The main question that teachers and parents expect the researchers and education professionals to answer is that how we can motivate the students' motivation? Motivation is one of the most important factors that influences on learning and academic achievement (Kavoosian et al., 2006, p 85). Motivation and interest play a major role in the learning process of students. Motivation is the tendency and willingness to do something. Motivation is a mode that creates the desire to perform a particular action in the person. Achievement motivation can be defined as the need to success or

achieve the superiority (Hashemi et al., 1389). Rash (1994) considers motivation as the noblest highway of learning; meaning that the more motivation in students for learning and education, the more effort, difficulty and inconvenience is sustained by them to achieve the ultimate goal. For example, if a learner has a high achievement motivation, he will pay attention to the lesson quite well, and take the assignments seriously; furthermore, he tries to learn more information than what is taught him in the classroom (Rash, 1994, p 38). Achievement motivation is the comprehensive tendency to performance assessment of oneself according to the highest standards, trying to success in performance and enjoyment of a pleasure associated with success in performance (Bagheri, 1993). In fact, motivation is each individual movement motor; the researchers consider the lack of academic motivation as one of the reasons for academic failure (Biabangard, 1997). David McColeland says: Achievement motivation can be defined based on two concepts of competition and ambition. He believes that the highly motivated people for progress want to employ their efforts to achieve noble and great goals or apply their efforts to achieve levels of ambition that they have planned for themselves (Hashemi et al., 2011). Pupils with a high degree of motivation turn to assignments with a moderate degree of difficulty. Students with a low degree of motivation turn to semi-difficult assignments, but they are not very determined in tendency to approach them. Those who have an intense fear of failure, either turn to very easy assignments with a high probability of success, or to very difficult tasks so that they can use their difficulties

as an excuse to fail (Biabangard, 1997). The students' motivation in the class indicates why the students behave in a certain way? If students do not do their homework, it may be due to lack of sufficient motivation. In contrast, if the students persevere in doing their homework and try to overcome the obstacles, they likely have motivation (Biabangard, 2006). Also, research and empirical evidence confirms the existence of a strong relationship between academic motivation and learning. Hant (1997) showed in his study that there are relationships between self-concept, hope and academic achievement motivation (Ahadi, 1995). Koovely (2000) concluded in a research that students with a positive and high self-concept have also a high academic motivation (Kavoosian et al., 2008, p 88). Kampbel and Beladso (1967) found in their study that there is a stronger relationship between self-concept and academic achievement motivation in boys than girls (Hassanzadeh et al., 2006). Sepman (1978) and Kefar (1975) demonstrated a high positive correlation between self- concept and academic achievement motivation (Karimzadeh, 2002). Rabensoon et al., (1986) found that high levels of self-concept and self-esteem significantly related with academic achievement motivation of high school students (Ahadi, 1995). Brocke Over (1981), Marsh (1984) and Skalovek (1986) found a significant correlation between academic achievement motivation and academic self-esteem (Biabangard, 2006). KooperSmeit (1959) examined the relationship between self-esteem and academic achievement motivation in his study and came to the conclusion that there is a positive relationship between self-esteem and academic achievement motivation (Meftah, 2003). Maroya&Roeen (1981) found in their research that the students with higher academic achievement have also a high self-esteem (Yosefi, 1996). Gordon Ronaldow (1994) found in his study that there is a relationship between high self-esteem and academic achievement motivation (Foroughi, 1997). Leonderay et al., (1988) studied the relationships between self-concept, academic performance,

motivation, self-esteem and persistence in tasks. They observed that the academic performance has been better for subjects who have clear and realistic images about their future as well as in subjects with more self-esteem, who insist more in their work and in subjects with higher motivation.

Peterson (2001) came to the conclusion in several studies that different factors involve in academic achievement motivation, of which mental health can be mentioned. Biabangard (2000) concluded in his study that mental health is one of the many factors that can play an important role in academic achievement motivation. Hertman (2001), in his study on examining the mental health as one of the factors affecting academic achievement motivation, reached to the conclusion that there is a strong relationship between mental health and lack of mental health with increased or reduced academic achievement motivation (Mossalanejad et al., 2005). Taheri (2006), in his study on reviewing the relationship between mental health, academic achievement motivation and academic self-concept, found that there is a very strong correlation between mental health, academic achievement motivation and academic self-concept. Motivation is one of the main factors affecting the behavior, and is involved in all of the individual functions such as education acquisition, education learning, learning and attention, attention, comprehension, recall, amnesia, creativity and presentation of love and emotions (Baraheni, 2009, p 76). Several factors and causes lead to the formation of academic achievement motivation and its increase among the students, of which the individual factors can be cited. Hence, these factors should be carefully identified and examined to realize the desired goal. Identifying and examining these factors and the role of each of them in creating motivation requires extensive and accurate researches in each case. With a comprehensive approach, the effective individual factors involved in the academic achievement motivation can be examined. In the following, the proposed model is depicted.

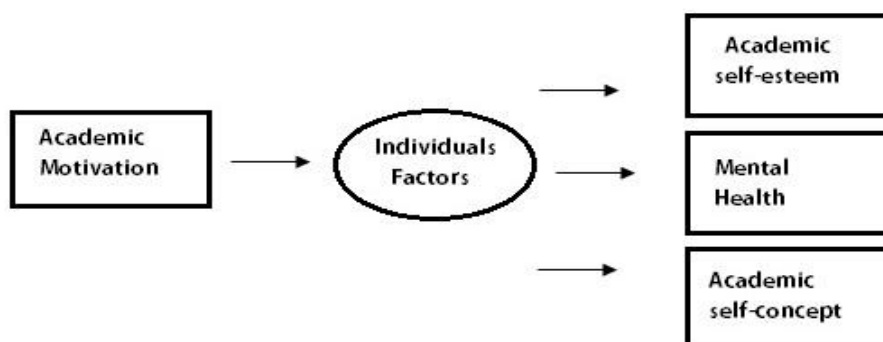


Figure 1. Proposed Model

MATERIALS AND METHODS

The main methodology used in this study was correlation method of structural equation analysis model. In this study, the subjects were selected through a multi-step random stratified random sampling method. Accordingly, from the total number of high school student girls in Bandar Abbas, Iran, 384 subjects were randomly selected, consisting of 207 subjects from district and 177 subjects from district 2. The research tools for gathering data included two sets of questionnaires:

1. Individual Factors Questionnaire: Cooper Smith's academic self-esteem questionnaire, Goldberg and Hiller public health questionnaire and Delawar academic self-concept questionnaire 2. Hermens academic achievement motivation questionnaire.

Reliability and validity of these tools have been approved in various studies.

RESULTS

The research findings were provided in two sections of descriptive findings and inferential findings. Descriptive findings of the research included mean, standard deviation, correlation matrix of criterion variable and predictor variables. These findings were presented below: For explanation, the academic achievement motivation as the criterion variable and the variables of academic self-esteem, mental health and academic self-concept as the predictive variables were measured. Descriptive indicators of mean and standard deviation of each variable are presented in Table 1.

Table 1. Mean and standard deviation of predictor and criterion variables

Variable	Mean	SD	N
Academic Motivation	1.697	0.903	384
Self-Esteem	2.640	1.022	384
Mental Health	2.799	1.137	384
Self-Concept	2.539	1	384

As seen in the above table, the average level of academic achievement motivation among the studied students was equal to 1.697. Also, the means of student scores on studied variables were presented in the above table that the highest mean value is related to the academic self-concept variable, equal to 2.539.

In addition, to review the research questions and for deductive analysis of research data, it was needed to calculate the correlation matrix of predictor and criterion variables.

The correlation matrix between the studied variables is presented in Table 2.

Table 2. Correlation matrix of predictor and criterion variables

Variables	Academic Motivation	Academic Self-esteem	Mental Health
Academic Self-esteem	0.258**		
Mental Health	0.318**	0.340**	
Academic Self-concept	0.312**	0.321**	0.511**

P<0.01** P<0.05*

Accordingly, the variable of academic self-esteem has the highest value of negative correlation coefficient with the academic achievement motivation variable (criterion variable); also, the mental health variable has the lowest value of positive correlation coefficient with the academic achievement motivation

variable (criterion variable).

B. Results related to the question: Findings related to the asked question were mentioned below according to the proposed model: The proposed model results are reflected in Figure 2.

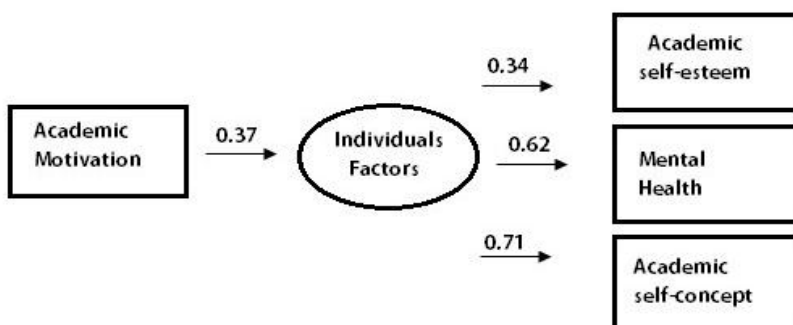


Figure 2. Analyzed model of individual factors influencing on academic motivation

Structural equation modeling method was used to explain and predict the criterion variable by the predictor variables. Hence, other factors as predictor variables and the academic achievement motivation as the criterion variable were studied.

Based on the research question, the proposed model was tested. In association with the posed question in this study, as, "Are the individual factors able to predict the academic achievement motivation?", it can be replied as such: Based on the results obtained from analysis of the proposed model, the individual factors consisting of three sub-parameters

of academic self-esteem, mental health and academic self-concept had factor loadings (academic self-esteem: 71%, mental health: 62% and academic self-concept: 34%), and the individual factors as the predictor variables explained 37% of the variance of academic achievement motivation as the criterion variable.

Also, the results of the proposed model show that the coefficients of the Root Mean Square Error of Approximation (RMSEA), Comparative Fitness Index (CFI) and Goodness of Fit Index (GFI), respectively, were obtained as 0.06, 0.96 and 0.96, which imply on the proper fitting of the model with the data.

Table 3. Fitting parameters of the proposed model analysis

Fitting Indices	Value
CMIN (χ^2)	55.33
DF	23
CMIN/DF	2.40
P.	p < 0.002
Goodness-of-fit (GFI)	0.96
adjusted goodness-of-fit (AGFI)	0.94
normed fit index (NFI)	0.94
comparative fit index CFI	0.96
Incremental fit index (IFI)	0.94
Tucker-Lewis (TLI)	0.91
Root-mean-square error of approximation (RMSEA)	0.06

DISCUSSION

The results of this study are consistent with the results of previous studies. The results show that the individual factors according to their components play an important role in enhancing the academic achievement motivation. Undoubtedly, there are other individual factors that can play role in increasing the students' motivation levels. Then, identifying and examining them is considered a priority. Finally, by identifying and examining these factors, we can witness higher levels of motivation and tendency in students in a near future.

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