Analyzing the Role of Self-Esteem Dimensions in Student’s Achievement Motivation (A Case of M.Sc. Students of Agriculture in Tehran University)

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The main purpose of this study was to analyze the role of self-esteem dimensions on student’s achievement motivation. The statistical population consisted of MSc students in College of Agriculture and Natural Resources, University of Tehran (N=712). According to Cochran formula, 175 students were selected through quota sampling method. The instrument for data collection was a questionnaire which its validity was confirmed by a panel of experts. Its reliability was confirmed by Cronbach’s alpha coefficients (α ≥0.7). The results of descriptive statistics showed that the amount of achievement motivation, global self-esteem, family self-esteem and social self-esteem found to be at a moderate level, whereas their educational self-esteem was found to be at a low level. The results of ANOVA showed that there are significant differences among students based on their levels of self-esteem and achievement motivation. Students with higher levels of self-esteem had achievement motivation more than others. Moreover, the results of logistic regression demonstrated that different aspects of self-esteem (including global self-esteem, social self-esteem and educational self-esteem) has a great ability to predict levels of students’ development. These factors explained 69.10 percent of the total variance.

Abstract

Keywords:
Achievement motivation, Self-esteem dimension, Agriculture students

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INTRODUCTION

Today, global economy focuses on developing human resources more than factors such as wealth production, information management, knowledge production, etc. Most economists agree that what ultimately determine the economic development of the country is human resources of the country not capital or financial resources (Todaro, 2003). Hence, emphasizing on human resources is an eminent component which should be considered to reach development and comprehensive aims. Because today more than half of their waking hours are occupied by their working life, having high motivation is essential for working and getting successes. The motivation of progress can be defined as personal desire to excel, success and difficult tasks and do them better than others (Chen, 2007). They want to see their personal responsibility for the situation and generally they believe that they are more able than others (Kukla, 1972). In addition, Gage and Berliner defined motivation of improvement as a desire or general interest to make an overall success or a success in their specific field (Seif, 2005). Hence, agriculture plays a significant role on development and economic growth and education and professional training as well as the related centers such as universities are the most important factors to reach the climax values of agriculture (Knight, 2004). University is one of the most eminent educational institutes and can be mentioned as significant factor to form future world (Lewellen, 2002), and students are the main component of the universities (Martin, 2008) highly motivated students are the driving force of the development and progress of the countries (Mazinani, 2001). Besides, universities need students with high motivation who are able to adapt the rapid changes and get more successes, so considering the student’s motivation in agricultural majors is an important agent in their successes and subsequently this value makes a result in development of the country (Bakhtiarvand et al., 2011). Achievement Motivation is known as the best way to learn, which means that the motivation for learning and higher education will undergo more activities to achieve the ultimate goal (Befkham, 2008).

In addition, achievement motivation is an important motivation which shows different performance and behaviors of people and next people’s behaviors can be anticipated if the motivation is recognized. Therefore, motivational principles and stimulating factors and variables shaping their behavior should be identified and analyzed.

Investigations suggest that the motivation to work depends on both environmental factors and motivational factors and also self-esteem is one of the motivating factors (Kafetsios and Zampetakis, 2007). Self-esteem and self-worth are the most fundamental factors in the growth and prosperity of the person (Smith, 1986). Some scientists believe that human beings need their consistent evaluation or self-esteem. Failure to satisfy the needs of worth and respect leads to feel weakness and helplessness (E’tesamifard, 2010). As it was mentioned, achievement motivation is a psychological aspect and it can be obtained when human have self-esteem and enough sufficiency (Pintrich and Schunk, 2002). The people who have a sense of self-worth and self-esteem are significantly more motivated and efficient compared to those in similar circumstances. So growing the sense of self-esteem and achievement motivation are the most important functions of families and education systems especially universities. Self-esteem can make positive effects on human behavior and mind; however, lack of it can mentally and physically have negative compacts on human beings (Tokinan and Bilen, 2010). Although achievement motivation conceptually distinct from self-esteem, they have strong and mutual correlation (Biabangard, 2005). Self-esteem is a good predictor for achievement motivation (Kloosterman, 1988). Because all people regardless of age, gender, cultural background, and occupation need self-esteem. In other words, self-esteem covers all aspects of human life (E’tesamifard, 2010). Some scientists insist in public self-esteem and some of them believe that each aspect should be separately evaluated. Self-confidence and self-worth are the components which are covered by self-esteem (Brooks, 2000).
Different authors studied about self-esteem and its impacts; Shahidi (2009) concluded that self-esteem of staffs had a significant effect on their motivation; in other words, developing the staff’s self-esteem increased their motivation. Kayvanzadeh et al. (2007) investigated the relationship of academic activity, achievement motivation, emotional intelligence, and contextual variables with academic achievement of students and the results showed that among 16 variables, only 6 of gender, correct homework, achievement motivation, mother's education, age and involvement of parents in education had significant coefficients for predicting the academic achievement. Different authors obtained the statistically positive and significant correlation between self-esteem and achievement motivation (Biabangard, 2005; Ebrahiminezhad and Sallimian, 2007; Kamariah et al., 2010; Kumboltz, 2007; Mayer et al., 2007; Byrne et al., 2004).

Studying the self-esteem and achievement motivation is important at least in two aspects. First, these concepts are inherently educational value and should be considered as an integral part of the educational goals of the educational system; second, these factors are needed for everybody to be effective and efficient. Hence, growing the sense of self-esteem for increasing achievement motivation is an important function of families and educational system particularly universities. Therefore, the present study was aimed to investigate the self-esteem role of the students in Agriculture College of Tehran University on their achievement motivation to reach the following especial objectives:

1. Studying the personal and professional characteristics of students;
2. Assessing self-esteem and academic achievement of the students;
3. Comparing the level of students’ achievement motivation based on their self-esteem;
4. Studying the role of self-esteem on separating the levels of achievement motivation of the students.

MATERIALS AND METHODS
The study was conducted based on survey method in descriptive statistics. Statistical population of this research consisted of 712 M.Sc. students of Agriculture College of Tehran University, Iran (N=712). Samples of 175 students were selected using Cochran formula based on quota sampling method. The main tool for gathering data in this study was the questionnaire consisting of three parts. Section 1 was about personal and professional characteristics; Section 2 included statements to test achievement motivation for which Hermans (1970)’s test was used. This test is based on experimental and theoretical methods with 35 items on a five-point scale (very low=1 to very high=5) which is used to determine achievement motivation ranging from totally agree to totally disagree. Section three of the questionnaire consisted of aspects of self-esteem; family self-esteem (seven items), social self-esteem (seven items), academic self-esteem (eight items), and overall self-esteem (nine items) based on self-esteem questionnaire of Cooper and Smith (1986). The questionnaire was designed by the experts and for validity of questionnaire in the present study; it was finally prepared after revising by the faculty members of department of Agricultural Extension and Education, Tehran University. Cronbach's alpha coefficient was used to evaluate the reliability of the questionnaire. In this study, the reliability of questionnaire was calculated with Cronbach's alpha using 30 students and SPSSwin 21 in the pre-test. Cronbach's alpha for achievement motivation and self-esteem was obtained 0.875 and 0.848, respectively. Since the Cronbach's alpha was more than 0.7, the questionnaire has a desired reliability.

RESULTS
Studying the personal and professional characteristics of the students
The results showed that participants’ mean age was 24.67 years (SD ± 1.77) ranging from 22 to 35 and also the maximum frequency was 53 students belonged to age level 24. In addition, 45.7 % and 54.3% of the students were female and male, respectively. Results indicated 29 students, with the maximum frequency, (16.6 %) were graduate students of Crop Production and 11 students with minimum frequency, (6.3 %) were graduate
students of Agricultural Economics. Moreover, most of the students (78.9 %) were originally born in urban areas, and the rest (21.1) were originally born in rural areas. 86.3 % of the students were living in urban area at the time of the study and only 13.7% were living in rural areas.

Studying the aspects of self-esteem and academic achievement of the students

The findings revealed the medium level of achievement motivation was found for 71 students with maximum frequency (40.6%), whilst minimum frequency of the students belonged to the low level of achievement motivation with 50 students (28.6%). The medium and highest overall self-esteem were found in 79 students (45.1%) and 46 students (26.3), respectively. Besides, the highest and lowest academic self-esteem were recorded for 62 students (35.4 %) and 52 students (29.7 %), respectively. The maximum percentage of students (33.4 %) was in medium level of family self-esteem and its minimum (28%) was in low level. The highest (87 students) and lowest (39 students) frequency of students belonged to medium level and low level of social self-esteem, respectively.

Comparing the achievement motivation of students according to their self-esteem

F-test was used to compare students’ achievement motivation based on their self-esteem. Levene test was applied to determine homogeneity and non-homogeneity of variances that was obtained as 0.558 with significance level of 0.573 showing no variance non-homogeneity and means comparison skewness. F-value was obtained as 25.066 and its significance level was 1% (Table 1). It means that there was a significant difference in achievement motivation among different levels of self-esteem.

Since F test cannot identify the differences, Tukey’s post-hoc test was used for paired comparisons to find the differences (Table 2).

Table 2 shows that mean difference in achievement motivation that was reported to be significant by analysis of variance lied among the three levels of self-esteem. Hence, the mean achievement motivation was statistically significant at all levels of self-esteem, showing students with different levels of self-esteem have different achievement motivation. Regarding medium level, there was a significant increase in achievement motivation with the increase in self-esteem. It is consistent with results reported by different authors (Hosseininasab and Vejdanparast, 2002; Bakhshayesh, 2011; Ebrahiminezhad and Salimian, 2007; Biabangard, 2005; Mayer et al., 2007; Naeimi, 2004).

Investigating the aspects of self-esteem in separating the levels of achievement motivation of students

According to mean achievement motivation, statistical sample was spited into two parts. Students who had mean less than 3.7 were in low level of achievement motivation and those with the mean of greater than 3.7 were in high level of achievement motivation. With making the discrete and dependent variable, the binomial Logit model was used to predict the role of

<table>
<thead>
<tr>
<th>Variance</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between-group</td>
<td>22.793</td>
<td>2</td>
<td>11.379</td>
<td>25.066</td>
<td>0.001</td>
</tr>
<tr>
<td>Within-group</td>
<td>78.201</td>
<td>172</td>
<td>0.455</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.994</td>
<td>174</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: The results of Tukey’s test for achievement motivation in self-esteem levels

<table>
<thead>
<tr>
<th>Self – esteem level</th>
<th>Mean achievement motivation</th>
<th>SD</th>
<th>Tukey's test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>106.88</td>
<td>8.64</td>
<td>Is significant with medium and high levels</td>
</tr>
<tr>
<td>Medium</td>
<td>119.81</td>
<td>3.56</td>
<td>Is significant with low and high levels</td>
</tr>
<tr>
<td>High</td>
<td>133.88</td>
<td>5.26</td>
<td>Is significant with medium and low levels</td>
</tr>
</tbody>
</table>
Chi-square of omnibus test was estimated to be 28.72 that had significance level of 1 with a five-degree freedom, showing that among independent variables, at least one independent variable had the capability to predict. So, the null hypothesis that data collected for separating two positions are matched was confirmed with an acceptable fitting function. Logit model properly segregated 69.1%, showing that this model has high accuracy. Nagelkerke R square was 0.20 and could be used as an indicator for comparing other models which will be presented in different investigations.

According to Table 3, overall, social and academic self-esteem has significance level of less than 5 and so, they are used in Logit model.

According to table 3, Logit model can be presented as following formula:

\[
\ln\left(\frac{p}{1-p}\right) = 10.45 + 1.242(x_1) + 0.965(x_2) + 0.657(x_3)
\]

where \( p \) is possibility of superiority chance of high-level achievement motivation, \( x_1 \) is the overall self-esteem, \( x_2 \) is social self-esteem, and \( x_3 \) is academic self-esteem. These results show that student who have high level of overall, social, and academic self-esteem, have more chance to increase the motivation than those who have low level of it. In other words, the best variables to predict achievement motivation are orderly overall, social, and academic self-esteem. These findings were similar to those obtained by other authors (Kamariah et al., 2010; Mayer et al., 2007; Shahidi, 2009; Tohidi, 2002).

**CONCLUSION**

Given the importance and impacts of self-esteem and achievement motivation on society and family as well as individual, it can have a large number of advantages for individual, university, and society to identify the factors affecting students’ motivation. The measurement of the achievement motivation in a large scale and different groups of people can help experts and governments to solve various problems, and as discussed in this study, self-esteem is an important factor in achievement motivation. Self-esteem is an eminent component for a successful life, so it is necessary to consider this value among students. Since self-esteem provides the basis of student’s perceptions from their life experiences, they will be able to solve the problems in the future. Self-esteem is an important aspect of people’s performance and has a relationship with other aspects such as mental health and academic achievement and it means that self-esteem can act as cause and effect in different situations. Since students are the main and important components of educational systems, the identification of their abilities can help their government and country to make appropriate decisions in the major issues. Hence this study was conducted among the students of Tehran University, Iran. The results showed achievement motivation of most students was in medium level and that there was a positive, significant relationship between achievement motivation and self-esteem. So, the variables of self-esteem should be considered and analyzed. In addition, achievement motivation has a significant role in learning process of students and it is necessary to make a good situation of academic, cultural, social and family aspects to increase the motivation till create a dynamic and attractive society can be created, and the competitions and talents of individuals are appropriately exploited towards realizing the main goals of the society. Logit

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**Table 3: Indexes of independently predictive variables of Logit model of achievement motivation along with Wald statistic**

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>Df</th>
<th>p-value</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall self-esteem(x1)</td>
<td>242.1</td>
<td>431.0</td>
<td>313.8</td>
<td>1</td>
<td>004.0</td>
<td>463.3</td>
</tr>
<tr>
<td>Academic self-esteem(x3)</td>
<td>657.0</td>
<td>313.0</td>
<td>397.4</td>
<td>1</td>
<td>036.0</td>
<td>928.1</td>
</tr>
<tr>
<td>Family self-esteem(x4)</td>
<td>077.0</td>
<td>268.0</td>
<td>083.0</td>
<td>1</td>
<td>077.0</td>
<td>080.1</td>
</tr>
<tr>
<td>Social self-esteem(x2)</td>
<td>965.0</td>
<td>420.0</td>
<td>279.5</td>
<td>1</td>
<td>022.0</td>
<td>625.2</td>
</tr>
<tr>
<td>Logit model index</td>
<td>-459.10</td>
<td>308.3</td>
<td>999.9</td>
<td>1</td>
<td>002.0</td>
<td>000.0</td>
</tr>
</tbody>
</table>
model showed student with high self-esteem have more chance to increase their achievement motivation. Therefore, the following subjects are recommended:

- Since the social self-esteem is one of the self-esteem dimensions that can predict students’ achievement motivation, it is suggested to describe the advantages of sub-disciplines of agriculture in classes for students and to emphasize abilities of successful graduates to boost students’ social self-esteem.
- It is important to include psychological courses in the curriculum because it can help students grow self-esteem. As a result, their achievement motivation will be improved, and finally educational goals will be reached.
- Since self-esteem is a psychological factor, it can be improved if families, society, friends, and universities pay it a closer attention, which will ultimately improve achievement motivation among students. So, it is suggested to expert hold counseling and dynamic meetings with individuals, families, and teachers. After that, appropriate approaches will be applied to increase students' self-esteem commensurate with their role in the society. Finally, achievement motivation of the students will be enhanced.

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