The relationship between academic motivation and academic achievement students

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Abstract

Background: the purpose of this study was to explore the correlation between academic motivation and academic achievement among Tehran University students. Method: In this cross-sectional correlation study, 252 Tehran University students were required to fill the academic motivation questionnaire. This 43-item questionnaire measured 8 aspects of motivation. Criterion for academic achievement was a mark which students themselves reported. Data were analyzed through using SPSS16 by means of Pearson Correlation coefficient. Results: Data analysis indicated positive and significant correlation between Academic Motivation and Academic Achievement. Furthermore subscales of task, effort, competition, social concern within eight subscales had a significant relationship with academic achievement. Conclusion: Regarding the results, students' academic achievement requires coordination and interaction between different aspects of motivation. © 2011 Published by Elsevier Ltd. Open access under CC BY-NC-ND license.

Keywords: Academic Motivation, Academic Achievement, Students;

1. Introduction

As an innate phenomenon, motivation is influenced by four factors of context (environment and external stimuli), temper (the internal condition of an organism), goal (goal of behavior, purpose and inclination) and instruments (instruments for achieving the goal). In order to achieve their goals, needs and instincts, human beings acquire the sufficient motivation. Particularly with respect to students, motivation for academic achievement is of great importance. By such motivation people are stimulated to successfully complete an assignment, achieving a goal or a degree of qualification in their professions (Mohamadi, 2006). Accordingly motivation defines the reasons behind people’s behavior and determines why they behave in a particular way. Motivated behaviors are energetic, oriented and permanent (Omidiyan, 2006).

In educational perspective, motivation has a multi-dimensional structure which is correlated with learning and academic motivation (Mohammadi, 2006). There are different interpretations of motivation. In the discipline of education motivation is a tridimensional phenomenon consisting of individual’s beliefs in ability in carrying out a specific task, reasons and goals of the individual in doing the task and the emotional response concerning carrying out the task (Hassanzadeh and Amuee, 2001). Experts have divided motivation into two major groups of internal motivation and external motivation. While the individual influenced by the external motivation with an independent
goal undertakes a specific activity, the internal motivation provides the sufficient incentive for doing a task (Mohamadi, 2006). Psychologists have noted that motivation should be taken into account in education because of its effective relationship with new learning, abilities, strategies and behaviors (Shahrray, 2007), and they have presented motivation for academic achievement as one of the preliminary constructs for defining such type of motivation. Motivation for academic achievement is attributed to behaviors which lead to learning and achievement (Masaali, 2007). In other words, motivation for academic achievement is such a pervasive inclination towards doing a task successfully in a particular context and assessing the performance spontaneously.

The bulk of behaviors indicating the academic motivation involves insisting on doing difficult assignments, hard-working or effort into learning to reach mastery and choosing assignments which need great effort (Abedi, 2008). Accordingly, motivation for academic achievement, or internal motivation, is a psycho-cognitive condition which is acquired once the individual perceive him/herself to have autonomy (Abedi, 2008).

In the past decades because of the effect of motivation for academic achievement on students’ success, psychologists have recognized and examined the effective factors in motivation for academic achievement. The results of their research indicated that personality, family, university and social variables are related to this construct (Masaali, 2007). As an instance personality variables of students in general and self-esteem and motivation for academic achievement in particular have intrinsically affected the learning and academic achievement (Abouserie, 2009). Others directed their studies towards integrating intellectual ability, learning style, personality and motivation for academic achievement as the predictors of academic achievement in higher education (Busato, Prinsb, Elshouta & Hamaker, 2009). In a research, for students of medicine the most important motivational factor in choosing medicine as an academic major have been the personality factors such as social status (Hajian, Nasiri, 2003). In Pennsylvania’s Faculty of Medicine, 90 percent of the students were satisfied with the instructional programs and the majority of them were interested in research-oriented jobs in academic centers (Watt, Greeley, Shea, Ahn, 2003). In another study, the motivation in students of dentistry was reported differently across males and females. (Gallagher, Patel, Donaldson, Wilson, 2007). In a research on students of dentistry, for example, male students were more concerned about the factor of income and female students cared more about family’s recommendations (Hashemipour, 2006).

Furthermore, researchers consider variables of hope for the future, self-esteem, quality of instructional factors, family income and married students as the chief factors in decreasing academic motivation (Molavi, 2007). Moreover, motivational damages on one hand caused a kind of pessimism, anxiety and depression and on the other hand resulted in academic performance failure in students (Askari, 2006). Consistent with these results, researchers argue that in order to create motivation education should be presented in appropriate context with desirable facilities concerning the learners’ needs (Javadi, Adhami, Haghdoost, 2002).

Studies carried out in the west have widely investigated the academic motivation. In Iran, attention has also been, more or less, paid to this phenomenon. However, a few researchers in the academic field have studied the role of motivation in academic achievement. Concerning the existing gap in the academic motivation of students, this study has examined the relationship between academic motivation and academic achievement in students. In this study, the relationship between the indicators of academic motivation, i.e. interest in task, inclination to effort, competitiveness, social power, affiliation, social concern, praise and token, with academic achievement was particularly examined.

2. Method

In this correlational study 252 students (115 male and 137 female) of University of Tehran were selected through the use of multi-cluster sampling. They were then required to fill in the Inventory of School Motivation-ISM (Ali, McInerney, 2009). This scale consists of 43 five-point Likert scale ranging from 1 (strong disagreement) to 5 (strong agreement) and has eight general components: interest in task, effort, competitiveness, social power, affiliation, social concern, praise and token. The reliability of the instruments has been calculated by many researchers and Cranach’s alpha coefficient has been reported 0.67 to 0.82 (McInerney and Sinclair, 1991). In this study Cranach’s
alpha coefficient was found to be 0.93. The criterion for academic achievement in this study was the average mark reported by the students themselves.

3. Results

Table 1 indicates the correlation coefficient between the components of academic motivation and academic achievement.

Table 1: the correlation coefficient between the components of academic motivation and academic achievement

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Task</td>
<td>4/25</td>
<td>0/52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Effort</td>
<td>3/77</td>
<td>0/67</td>
<td>0/18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. competition</td>
<td>3/35</td>
<td>0/82</td>
<td>0/15</td>
<td>0/16*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. social power</td>
<td>3/16</td>
<td>0/85</td>
<td>0/09</td>
<td>0/13</td>
<td>0/15*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. affiliation</td>
<td>3/61</td>
<td>0/91</td>
<td>0/12</td>
<td>0/14*</td>
<td>0/06</td>
<td>0/10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. social concern</td>
<td>3/88</td>
<td>0/56</td>
<td>0/11</td>
<td>0/12</td>
<td>0/13</td>
<td>0/16*</td>
<td>0/10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. praise</td>
<td>3/87</td>
<td>0/70</td>
<td>0/13</td>
<td>0/12</td>
<td>0/10</td>
<td>0/15*</td>
<td>0/15*</td>
<td>0/17*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. token</td>
<td>3/28</td>
<td>0/87</td>
<td>0/16*</td>
<td>0/14*</td>
<td>0/15*</td>
<td>0/11</td>
<td>0/08</td>
<td>0/07</td>
<td>0/05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Achievement</td>
<td>15/5</td>
<td>1/29</td>
<td>0/16*</td>
<td>0/22*</td>
<td>0/25*</td>
<td>0/10</td>
<td>0/04</td>
<td>0/19*</td>
<td>0/03</td>
<td>0/04</td>
<td></td>
</tr>
</tbody>
</table>

*= p<0/01; **= p<0/05

According to Table 1, academic achievement has the highest correlation with competitiveness and the lowest correlation with praise. Only the components of task, effort, competition and social concern have a positive and significant relationship with academic achievement. Step-by-step regression was used to predict and explain the variance of academic achievement based on the components of academic motivation (Table 2).

Table 2: the results of step-by-step regression analysis based on the components of academic motivation

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>F</th>
<th>R</th>
<th>R^2</th>
<th>R^2</th>
<th>B</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>competition</td>
<td>13/6</td>
<td>0/26</td>
<td>0/07</td>
<td></td>
<td>0/25</td>
<td>0/07</td>
</tr>
<tr>
<td>2</td>
<td>competition</td>
<td>10/5</td>
<td>0/31</td>
<td>0/10</td>
<td></td>
<td>0/21</td>
<td>0/05</td>
</tr>
<tr>
<td></td>
<td>Effort</td>
<td>0/18</td>
<td>0/04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 indicates that only the two components of competition and effort can significantly predict the academic achievement. In the first step, competition explained 6.5 percent of changes in academic achievement. In the second step, by adding the component of effort, an aggregate of 9.8 percent of the changes in academic achievement were significantly predicted.

4. Discussion and conclusion

These findings are consistent with the findings of other studies (Ali, McInerney, 2009; Ghafor Khayyat, 2004). In this study, there was a relationship between the components of motivation and academic achievement and this was, to some extent, consistent with the results of the researchers who highlighted the significant relationship between motivations for acquiring self-esteem, …., encouragement, ability, competitiveness, social affiliation, achieving future goals, interest in learning and satisfying others, with academic achievement in students (Askari, 2006; McInerney, Yeung, McInerney, 2001 & Ghafor Khayyat, 2004). Although in this study there was a weak relationship between the components of motivation and academic achievement which can be attributed to the precision of students in reporting their average mark, the reported average mark might be rounded and the decimal numbers might lack enough precision. Above all, concerning the high grade of interest in task, it is safe to say that learners who believe that tasks are worthy and valuable are more concerned with cognitive activities and use more cognitive and monitoring strategies and have basically more academic achievement. Also, once learners inherently value learning, this will have a positive effect on self-discipline and self-efficacy.
Since the component of competitiveness showed a high correlation with the total average, if this component is in consistent with the academic knowledge and expertise of young physicians, it would be ideal. But in the case of one-dimensional extremes, i.e. achieving high grades only and surpassing other classmates, it would be an alarm for administrators and individuals in the society, for students contribute to development of the country and must also acquire the ability to cooperate with others rather than having only competitive motivations.

Since this study was confined to certain faculties of the University of Tehran, its results should be generalized to other faculties and universities with caution. Motivational factors have crucial role in academic achievement and since academic achievement of students is related to the society’s development, it is suggested that more attention be paid to the components of motivation by administrators and educational planners.

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