ON THE RELATIONSHIP BETWEEN MOTIVATIONAL GOAL ORIENTATIONS AND ACADEMIC ACHIEVEMENT AMONG IRANIAN STUDENTS

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ABSTRACT
Recent studies about achievement motivation mostly focus on individuals’ goals in academic situations which might affect educational behaviors and students’ academic achievement outcomes. The purpose of this study was to investigate the relationship between motivational goal orientations and academic achievement of high school students of Shiraz, Iran. In total, 835 high school students of Shiraz participated in this study. The participants filled in the Inventory of School Motivation. The Grade Point Average (GPA), mathematics and English final exam scores of the students were gathered. The data were analyzed through Pearson correlation coefficient. The analysis of the data indicated that the GPA had a positive meaningful relationship with competition, effort and social concern goals and it had a negative meaningful relationship with social power and token goals. The score of mathematics and English had a positive meaningful relationship with effort goal and it had a negative meaningful relationship with social power and token goals. Different motivational goals orientation can have significant effects on students’ academic achievement outcomes. The implication of this study is that it helps the officials of the education systems and families to be more cognizant of the students’ goal orientations in their schooling and to pave the way for students to achieve their goal and improve their educational performance.

KEYWORDS: Motivational goals orientation, Academic achievement, Student’s motivation

INTRODUCTION
Trainers, teachers and parents consider motivation as the key to successful educational performance (Watkins, McInerney & Lee, 2002). One of the most important areas of research in educational researches is the effect of students’ motivation on educational outcomes. Motivation can be conceptualized as the student’s energy and drive to get involved in learning (Criss, 2011),
and it also plays a big role in the interest of students in school, education and enjoyment of it (Martin, 2003; Ali & McInerney, 2006). Motivation is also one of the psychological bases of students’ achievement (Ali & McInerney, 2006; Nolson, O’Mara, McInerney & Dowson, 2006) and it leads students’ goals orientation (McInerney, McInerney & Dowson, 2005; King, Ganotice & Watkins, 2011; Maehr & Zushu, 2009). Recent theories in achievement motivation mostly focus on individuals’ goals in academic situations which might affect educational behaviors, cognitive processes and achievement (McInerney, Maehr & Dowson, 2004; McInerney, 2004; McInerney & Dowson 2003; King, Ganotice & Watkins, 2011). One of these theories is Maehr’s Personal Investment Theory. From its inception, personal investment theory was developed to be a cross-culturally relevant model of students’ achievement goals. In this model, four types of goals are proposed to be important in understanding student motivation in school: mastery goals, social goals, performance goals, and extrinsic goals. Each of these goals, in turn, is comprised of two facets (King, Ganotice & Watkins, 2011) (See Table 1). Different motivational goals can have significant effects on students’ achievement outcomes (Elliot & Church, 1999; McInerney, 2008; Pintrich, 2000; King, Gatonice & Watkins, 2011).

<table>
<thead>
<tr>
<th>Achievement goal</th>
<th>Facet</th>
<th>Definition</th>
<th>Sample items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mastery goals</td>
<td>Task involvement</td>
<td>interest in the task</td>
<td>“The more interesting the schoolwork the harder I try.”</td>
</tr>
<tr>
<td>Effort</td>
<td>willingness to expend effort for schoolwork</td>
<td>“I always try hard to understand something new in my schoolwork.”</td>
<td></td>
</tr>
<tr>
<td>2. Performance goals</td>
<td>Competition</td>
<td>competitiveness in learning</td>
<td>“I like to compete with others in school”</td>
</tr>
<tr>
<td>Social power</td>
<td>seeking status through group leadership</td>
<td>“I like being in charge of a group.”</td>
<td></td>
</tr>
<tr>
<td>3. Social goals</td>
<td>Affiliation</td>
<td>belonging to a group when doing schoolwork</td>
<td>“I can do my best work at school when I work with others.”</td>
</tr>
<tr>
<td>Concern</td>
<td>concern for other students</td>
<td>“I like helping other students with their School work.”</td>
<td></td>
</tr>
<tr>
<td>4. Extrinsic goals</td>
<td>Token</td>
<td>concern for other students</td>
<td>“Getting a reward for my good schoolwork is important to me.”</td>
</tr>
<tr>
<td>Praise</td>
<td>seeking tangible rewards for schoolwork</td>
<td>“I work best when I am praised in school.”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>seeking social recognition for schoolwork</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Studies showed that achievement goals are related to outcomes such as self-esteem, general well-being, socio-emotional functioning, learning strategies (Wolters, 2004), self-regulated learning (Pintrich, 2000), grades (Elliot & Murayama, 2008), emotions in school (Pekrun et al. 2006, 2009), self-related beliefs (Pajares, Brinter & Valinte, 2000), and other valued educational outcomes (Elliot, 2005).

Ali and McInerney (2003) found that a positive relationship exists between effort goals, GPA and achievement in English but there is a negative relationship between task, effort and GPA.
Similarly, social power goal is a strong negative predictor of English and mathematics scores. Also receiving rewards was a strong positive predictor of GPA in some groups.

Sulimon and McInerney (2003), found that for Lebanese students and non-Lebanese students living in Australia, task and effort goal is a strong predictor of science and English achievement but social power, competition, social concern, praise and token goals in both groups are not predictors of students’ academic achievement.

Most of the recent studies in western countries about motivation are concerned with motivational goals but a few studies have been carried out in Iran about this subject. Regarding the role of students’ motivational goal orientations in academic achievement and considering the fact that one of the most significant problems of Iranian students is lack of motivation (Sobhaninejad & Abedi, 2006), the investigation of the relationship between motivational goals and academic achievement in Iran seems necessary.

**RESEARCH QUESTION**

Is there any meaningful relationship between students’ goal orientations and academic achievement?

**METHODOLOGY**

**Participants**

In total, 835 students of Shiraz high schools participated in this study consisting of 420 males and 415 females. Among them, 260 students (31.2%) were in the first grade, 274 students (32.8%) were in the second grade, and 301 students (36%) were in the third grade of high school.

**Instruments**

The Inventory of School Motivation (McInerney & Sinclair, 1991, 1992; McInerney et al., 1997; McInerney, Yeung, & McInerney, 2001) was devised as an exploratory instrument through which a range of motivation salient constructs drawn from Maehr’s Personal Investment (Maehr, 1984; Maehr & Braskamp, 1986) model could be identified in educational settings across a large number of different groups. There is a lot of empirical evidence drawn from both exploratory and confirmatory factor analytic studies for the validity and reliability of scales drawn from the ISM (see, for example, McInerney et al., 1997, 2003). Inventory questions are related to the perceived behavioral goals, with each having two elements:

*Task (Mastery):* Task involvement (e.g., “I like to see that I am improving in my schoolwork”) and Effort (e.g., “When I am improving in my schoolwork I try even harder”).

*Ego (Performance):* Competition (e.g., “I like to compete with others at school”) and Social Power (e.g., “I work hard at school to be put in charge of a group”).

*Social solidarity:* Affiliation (e.g., “I prefer to work with other people at school rather than
work alone”) and Social concern (e.g., “I like to help other students do well at school”).

**Extrinsic:** Praise (e.g., “I want to be praised for my good schoolwork”) and Token rewards (e.g., “I work best in class when I get some kind of rewards”).

The students responded to each item on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The Persian version of the Inventory of School Motivation was used in this study. Azadikhah, (2012), calculated the Cronbach’s Alpha as follows: Task = 0.70, Effort = 0.72, Competition = 0.82, social power = 0.85, social concern = 0.78, praise = 0.84, token rewards = 0.85, the reliability of the ISM was α =0.93. In order to examine the academic achievement variable, we gathered the GPA, English and mathematics final exam scores of the students.

**RESULTS AND DISCUSSION**

99.76 percent of the students (848 students) answered the questionnaire. The average age of the students was 17, and most of the students were between 16 and 18 years old. As it can be seen in Table 1, in all scales the mean is higher than the median. The range of the mean is between 3.29 (Social power) and 4.42 (Task). The range of the standard deviation is between 0.60 and 0.96. Also the range of the correlations of the instrument subscales is between 0.23 and 0.61.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</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>
</tr>
</thead>
<tbody>
<tr>
<td>1. Task</td>
<td>4/42</td>
<td>0/60</td>
<td>1/47</td>
<td>0/36</td>
<td>0/23</td>
<td>0/34</td>
<td>0/38</td>
<td>0/28</td>
<td></td>
</tr>
<tr>
<td>2. Effort</td>
<td>3/90</td>
<td>0/79</td>
<td>1</td>
<td>0/42</td>
<td>0/27</td>
<td>0/49</td>
<td>0/28</td>
<td>0/26</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>4/04</td>
<td>0/82</td>
<td>1</td>
<td>0/31</td>
<td>0/35</td>
<td>0/38</td>
<td>0/33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Social</td>
<td>3/29</td>
<td>0/96</td>
<td></td>
<td>0/30</td>
<td>0/50</td>
<td>0/45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Social</td>
<td>3/82</td>
<td>0/81</td>
<td></td>
<td>1</td>
<td>0/34</td>
<td>0/27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Praise</td>
<td>3/97</td>
<td>0/86</td>
<td></td>
<td>1</td>
<td>0/61</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Token</td>
<td>3/51</td>
<td>0/94</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All correlations are meaningful at p < 0.05 level.

The findings indicated that a meaningful difference existed between girls and boys in “Social concern” (p < 0.01, t=−3.69), “Praise” (p < 0.01, t=−4.97), “Task” (p < 0.01, t=−6.34) and “Effort” (p < 0.05, t=−3.09) scales. The average of these scores was higher in girls than boys, while there was no significant difference between boys and girls in “Competition”, “Social power” and “Token” scales.

Pearson correlation between the Inventory scales, the students’ GPA and their final exam scores in mathematics and English was calculated to investigate the relationship between motivational goals orientation and academic achievement. The results showed that there was a positive meaningful relationship between the students’ GPA, effort (r=0.20, p<0.05), social concern (r=0.08, p<0.01), and competition goals (r=0.13, p<0.01) and there was a negative meaningful relationship between the students’ GPA, social power (r=0.09, p<0.01), and token goals (r=0.09, p<0.01). Other results indicate that mathematics score has a positive relationship with effort goal.
(r=0.16, p<0.05) and there is a negative meaningful relationship between mathematics score and social power goal (r=0.12, p<0.05). Also this study showed that English score has a positive meaningful relationship with effort goal (r=0.13, p<0.05), and it has a negative meaningful relationship with social power (r=0.12, p<0.05) and token goals (r=0.11, p<0.05) (Table 2).

Table 3: Pearson correlation between motivational goals 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>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task</td>
<td>4/42</td>
<td>0/60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effort</td>
<td>3/90</td>
<td>0/79</td>
<td>0/52**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Concerns</td>
<td>3/82</td>
<td>0/81</td>
<td>0/36**</td>
<td>0/50**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition</td>
<td>4/04</td>
<td>0/82</td>
<td>0/40**</td>
<td>0/45**</td>
<td>0/36**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Praise</td>
<td>3/97</td>
<td>0/86</td>
<td>0/40**</td>
<td>0/30**</td>
<td>0/35**</td>
<td>0/41**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Power</td>
<td>3/29</td>
<td>0/96</td>
<td>0/24**</td>
<td>0/29**</td>
<td>0/28**</td>
<td>0/32**</td>
<td>0/49**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Token</td>
<td>3/51</td>
<td>0/94</td>
<td>0/28**</td>
<td>0/27**</td>
<td>0/25**</td>
<td>0/33**</td>
<td>0/60**</td>
<td>0/45**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Language</td>
<td>15/00</td>
<td>4/09</td>
<td>0/13**</td>
<td>0/00</td>
<td>0/05</td>
<td>0/06</td>
<td>0/09**</td>
<td>0/11**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>15/19</td>
<td>4/22</td>
<td>0/01</td>
<td>0/16**</td>
<td>0/04</td>
<td>0/05</td>
<td>0/03</td>
<td>0/12**</td>
<td>0/10**</td>
<td>0/66**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GPA</td>
<td>16/41</td>
<td>2/55</td>
<td>0/06</td>
<td>0/20**</td>
<td>0/08**</td>
<td>0/13**</td>
<td>0/03</td>
<td>0/09**</td>
<td>0/09**</td>
<td>0/73**</td>
<td>0/78**</td>
<td>1</td>
</tr>
</tbody>
</table>

**P<0.01  *p<0.05

CONCLUSION

Given the importance of students’ motivational goals in academic achievement, this study was conducted to bridge the existing gap in the discovery of possible relationships between students’ motivational goals and academic achievement criteria. The students of first, second and third grades of Shiraz high schools completed the Inventory of School Motivation. The academic achievement criteria, the students’ English language and mathematics final exam grades and also their GPA were taken into consideration. The total score of the students on ISM indicated that they were relatively motivated (McInerney, 2008; McInerney, Yeung & McInerney, 2001). Task goal was the highest valued motivational variable which was in line with the result of the study conducted by Ali and McInerney (2005) and McInerney (2008). The results of this study indicated that the students’ GPA had a positive meaningful relationship with effort, competition and social concern goals, but it had a negative meaningful relationship with social power and token goals. The results of this study were consistent with those of Yousefi, Ghasemi and Firouznia (2009) and with those of Amrai, Elahi Motlagh, Azizi Zolani and Parhoun (2011). Also mathematics score had a positive meaningful relationship with effort goal while it had a negative meaningful relationship with social power and token goals. Other findings of this study indicate that there is a positive meaningful relationship between English score and effort goal but there is a negative meaningful relationship between English score, social power and token goals. This finding was consistent with that of Ali and McInerney (2005), Ali and McInerney (2006) and Sulimon and McInerney (2003), McInerney, Yeung & McInerney, 2001. In interpreting these results, we can say that one of the characteristics of motivated students is that they make a lot of efforts to do their tasks, learn new subject matters, and solve difficult problems. It is obvious that their efforts will finally lead to getting a good grade from their teachers and therefore the GPA
can be considered a yardstick for students’ efforts in school. Findings of this study indicated that effort as a criterion for motivation has positive relationship with students’ GPA. Although this relationship is weak, it is theoretically in line with the relationship between effort and GPA. The positive relationship between social concern and GPA was as predicted theoretically. Motivated students are not only worried about their achievement but they also feel satisfied when their friends are successful in doing their tasks. The findings showed that this motivation feature has positive relationship with the students’ GPA. Being ranked the first in class and having a sense of superiority over others is among the features of the competition dimension of motivation. It is assumed that those who have a high score in this dimension, their GPA is an indicator of their achievement. In this respect, the findings were in line with the theoretical orientation of this study. A possible explanation of why the relationship between these two dimensions and the GPA is weak is that the GPA is not a solid criterion for assessing students’ effort. In some courses, some scoring standards might not be met on the part of the teacher and the students might get good grades without making any effort. Since the GPA is determined based on teacher-made tests, non-standardness of these tests and the difference between scoring criteria in different courses (e.g. English and mathematics) might be a reason for the weakness of these relationships. Anyhow, these relationships were in line with those of the studies done by Ali and McInerney (2005), Ali and McInerney (2006), and Suliman and McInerney (2003). Since there was a high correlation between competition and the students’ GPA, we can say that if competition is in line with students’ literacy, they should be encouraged but if they are indulged in one-dimensional aspect and surpass other students by gaining better grades, it is an alarm for education authorities and other sections of the society. We can also say that students who spend their time on side issues are weaker than others because they would like to assume leadership and superiority to others which should be replaced by cooperation and friendliness. The comparison between two groups of male and female students indicated that girls have more motivation than boys in “Effort”, “Social concern” and “Task” subscales. The possible reason for this issue is the greater accountability of girls and their future responsibility like maternal duties. The limitation of this study was that the students’ final exam scores were used as academic achievement criteria. These tests are not standardized and therefore their validity and reliability might not be appropriate. Also these tests are highly dependent on the test evaluator’s opinion and the scores might reflect the evaluator’s emotional aspect of scoring. Since this study was limited to students of high school, generalization about other grades should be made with caution. According to the mentioned limitation, we suggest that researchers use the scores of the standardized tests in their future studies as academic achievement criteria.

REFERENCES


