The relation between academic optimism and motivation of academic advancement with respect of mediating role of academic efficacy of the second grade students

By

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Abstract

The goal of this paper is investigating about the relation between academic optimism regarding the mediating role of students’ self-efficacy in second grade of high school. The method of this study is descriptive and its type is correlative. Statistical populations are all students of Birjand’s second grade high school students in educational year of 2014-2015. Their total number is 2520. Sampling method is cluster sampling. 296 students were chosen by Morgan’s Table. To gather data three questionnaires were used: T-Shannen Moran and et al., Hermans’s academic advancement motivation and Moris’s self-efficacy. To analysis the data, descriptive statistic indices, average and standard deviation and deductive statistics, Pierson’s correlative statistic and step by step regression analysis are used. Finding showed that there is significant relation between academic self-efficacy and motivation of advancement in students and it was higher than average. Meanwhile their academic optimism was not significant, was higher than the average. Direct effect of academic optimism of students on advancement motivation was positive and significant. The results of this study also showed that academic optimism of students has indirect effect on advancement motivation by self-efficacy. The result of direction analysis showed that the conceptual method of the study has a good fit.

Keywords: academic optimism, academic advancement motivation, academic self-efficacy, second grade of high school

1. Introduction:

Nowadays, education is an important part of each person’s life. Furthermore, the quality and quantity of this education play an important role in one’s future. So, it is close to one century that psychologist try widely to define factors that affect academic advancement. In different societies, specialized groups and psychologists always stress on different aspects of education and the factors that effect on it. The reason is that not only students and their families, but also the communities spent a lot of expenses for the education of students in different levels. Therefore, achieving positive results in education can result in comprehensive advancement of students and society (by identifying and controlling effective factors) (Khani, 2011).

One of the most important issues in education is caring for motivation and academic advancement. Advancement motivation is interest in doing a task, organizing material and social environment, overcoming the obstacles, overtaking the others, and competing others by endeavor to do the tasks better. Academic advancement of student in different level requires forceful motivation that can urge individual and group activities of students (Moghaddari, 2013). In the assessment of cognitive theories, motivation in education plays an important role. The underlying idea of this motivational structure regarding students’ attitude is the ability to act by themselves or self-efficacy that provide grounds for motivation (Baghebani and Dehghani Neyshabouri, 2011). According to Bandura’s theory of social learning, believing in self-effectiveness effects on one’s choices. Peoples are interested in those activities in which they have capabilities and avoid those activities that they don’t have capabilities for doing them. Self-efficacy beliefs determine how much people consume energy for their activities and how much they resist against obstacles (Pajares, 2003). Academic self-efficacy is one type of self-efficacy. It means the individual perception from one’s capabilities in learning, solving educational problems and achieving academic
success (Richardson, 2001, cited in Mali, 2014). Studies show that when self-efficacy beliefs of the individual improve, his or her performance also improves (Mohammad Sharooni, 2012).

Regarding academic advancement in schools, it is said that, success is a function of talent and motivation. Seligman(1998) suggests the third factor as optimism that its role is as much as talent and motivation. Optimism can be learned and can be grows. Optimism in individual’s attitude toward one’s ability to do the tasks (self-efficacy) also has an important role. Academic optimism, as an organizational and personal trait, creates and conserves school culture and encourages teachers to create optimistic beliefs about themselves, trust to students and their parents. They are also encouraged to scientifically stress on fulfillment of educational tasks and try to spread a scholastic positive, active and cheerful environment (HasanZadeh, 2013). Academic optimism of students illustrates a rich image of humane agency that defines student behavior in cognitive, emotional and behavioral dimensions (Tschannen-Moran, Bankole, Bankole, and Moore, 2012). The goal of a recent study is investigating bout the relation between academic optimism and academic advancement motivation regarding the mediation role of academic self-efficacy of students of the second grade of high school. The questions of the study re as follow:

- How is the status of academic optimism of student and its components?
- How is the status of self-efficacy of student?
- How is the status of academic advancement motivation of students?

**Theoretical framework**

In the following paragraphs we will describe about advancement motivation, academic optimism and academic self-efficacy, and then we will assess the relation between academic optimism, self-efficacy, advancement motivation and self-efficacy and academic optimism.How is the status of academic optimism of student and its components?

**Advancement motivation**

In 1938, the term of advancement motivation was used by Henry Moory for the first time. He is called the father of the advancement motivation theory (KhodaPanahi, 2007). Academic motivation is a student’s desire (as reflected in the approach, persistence and level of interests) regarding academic subjects when the students’ competence is judged against a standard of performance or excellence. Academic motivation is a subtype of the general construct of effectance motivation, which is defined as the “need” to be successful or effective in dealing with one’s environment (Temidayo, 2013).

Gage and Berliner (1992) defined advancement motivation as an interest in success in a special field. Some people have high motivation and try very much in competing others, but other people don’t have much motivation for advancement and success and because of the fear of failure, don’t prepare themselves for success. Motivation has a vital role because of its role in our daily life. All our activities, our thought and beliefs are affected by internal motivation. Studies show that the more is advancement motivation, the more is the individual’s success (Soleymanifar and Shabani, 2013).

**Academic self-efficacy**

One of the most important theories of changing behavior regarding learning is the theory of academic self-efficacy of Bandura. According to this theory, among personal mechanism, self-efficacy in controlling behavior and environmental demands is the most fundamental and comprehensive one. Academic self-efficacy in its special meaning refers to the certainty in performing academic tasks such as reading books, answering questions in the classroom and prepare for tests. Higher level of self-efficacy results in higher scores average and consistency for completion of assignments. Consequently, learners who have higher self-efficacy, have a better academic adjustment and apply more beneficial learning strategies and finally have better performances (Jamaali, Noroozi, Tahmasebi, 2013). Several studies demonstrated the positive relation between self-efficacy and academic success (Zajacova, Lynch, and
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Espenshade, 2005; Ghamari, Mohammad Beigi and Mohammad Salehi, 2010; Artino, La Rochelle, and Drumming 2010).

Academic optimism

For the first time Hoy, Tarter and Hoy (2006) introduced academic optimism feeling in school level. Academic optimism in school level is composed of 3 parts: cumulative self-efficacy of teachers, academic cadre trust in students and their parents and scientific stress or academic pressure for achieving academic expectation. Further researches showed that this structure is true in personal level and applies to all teachers and can be a positive and effective trait of teachers. Academic optimism is teachers' beliefs. This means that teachers can effect on students’ academic advancement by emphasis on teaching and learning, believing in their capacities when they face problems and trust in students and their parents (Hoy, Hoy and Kurz, 2008).

After introducing academic optimism structure by Hoy and his colleagues, lots of research on this structure and its extension to individual area were done. Academic optimism is a new area that formed by Tschannen-Moran and et al., 2012). This concept provides a ground for academic advancement by three components: students’ trust in teachers, identification with school, and students’ conceptions from academic pressure (Tschannen-Moranand et al., 2012).

Students’ trust in teachers

Hoy and Tschannen-Moran (1998) defined students; trust in teachers as the propensity of individuals for risking and working with others. This propensity is based on confidence in others. It means believing that others are will-wisher, worthy, honest and trustable. Studies showed that as children will attach to their caregivers, students will attach to their teacher when they enter school. If this relation is consistent, further success of children will be guaranteed. Likewise, students’ feeling toward the schools’ worthiness and possession, help them to step on success road. Studies showed that relations of students with their teachers will boost their trusts and it is a powerful variable for predicting academic performances of students (Tschannen-Moranand et al., 2012).

Academic emphasis or students’ perception of academic pressure

The principle of this component is that students will probably more successful in those environments that introduce interesting and challengeable activities. In other words, in academic emphasis, the focus is on learning and centered education. Schools with high academic emphasis, regarding education are inclined to environments in which there are high level of goals and expectations. Teachers’ trust in the students’ capabilities and students in turn respect academic norms of the schools. Academic emphasis includes: politics, activities and norms that lead students to success. Goddard, Hoy and Sweetland (2000) believes that scientific emphasis isperception of the norms and environmental behaviors that will have the greatest impact on organizational and individual behaviors. He suggests that scientific emphasis is not only emphasis on scientific success of students, but also on the degree it can support learning process improvement and academic advancement of students (Hoy and Fledman, 1987, cited in Goddard, Tschannen-Moran and Hoy, (2001).

Identification with schools

This component refers to the use of vocabularies such as feeling of attachment, dependence, involvement, commitment and affection that students use when they identify themselves with schools. In contrast, students with less academic success, less identifies themselves with schools. These students are described by terms such as alien, dissociable and dissatisfied. Finn (1989) and Voelk (1997) define two complementary ideas that represent students’ identification with schools as follow: first, schools play an important role in their life and they are attached to their schools. Second, students value schools and the goals that related to them. The substitute terms for describing this concept include: membership in school, attachment to school, commitment to school (Tschannen-Moranetal., 2012).
**Academic optimism and self-efficacy**

In recent years, positive psychological researches focus on concepts such as self-efficacy, mind health, stress, occupational depression, anxiety and depression (Meyers, Woerkom, and Bakker (2013), Peterson (2009), Seear and Vella-Brodrick, 2013). Seligman (2002) suggests that, subject of positive psychology is improving quality of life, but not solving the problems existed. Positive psychology is a term signifying health, satisfaction, happiness, emotional satisfaction, optimism and enthusiasm for fulfilling the tasks that all of them are positive experiences of mind (Hoy, Tarter (2011), Seligman (2002), Seligman and Csikszentmihalyi, 2000). Self-efficacy should be investigated, especially because it is a positive characteristic (Hoy, Tarter, 2011, cited in Sezgin and Ordugan, 2015).

Siddique, LaSalle-Ricci, Glass, Arnkoff, and Diaz (2006) in their study on law students showed that academic self-efficacy has positive relations with optimism. This means that students with higher self-efficacy had higher academic self-efficacy. Generally, different studies suggest that there is a positive relation between self-efficacy and optimism (El-Anzi, 2005, Scheier, Carver,and Bridges, 1994, Siddique and et al., 2006, cited in Tan and Tan, 2014). Several studies also showed that there is a positive relation between academic optimism and success of schools and students (Hoy and et al., 2006, Hoy and Smith, 2007). Likewise, Snipes and Robinson(2009) in their studies showed that optimism has a positive effect on scientific success.

Khosravi (2013), in his study on 529 students showed that potent students comparing to weak students have positive beliefs about their strength and expect less failure. MohammadZadeh (2014) in his study on “mediating role of attitude toward mathematics and self-efficacy of mathematics in relation between academic optimism conception of teachers and advancement in mathematics of high school students of Birjand”, showed that there is the indirect and significant relation between conception of academic optimism of teachers and advancement in mathematics. The subjects of this study were 315 students.Hassani, Ahmadi and Mir Dariikavandi (2011) in their study on “relation between Islamic optimism, learned optimism of Silgman and mental health”, showed that there is a significant relation between variables of optimism, physical and mental health and self-efficacy.

Salehiand et al., (2014) in their study on “assessment of the relation between academic optimism and self-efficacy of the teachers”, showed that there is a positive relation between academic optimism and self-efficacy of the teachers. Likewise, they showed that there is a positive relation between self-efficacy components and optimism of the teachers.

Sezgin and Erdogn (2015), in their study on “ academic optimism, hope, and enthusiasm for work as predictors of self-efficacy and understanding the teachers success”, showed that there is a significant relation between self-efficacy of the teachers, understanding the teachers’ success, hope and enthusiasm for work and these components positively predicts self-efficacy of the teachers.

**Assumption 1**: academic optimism of student effect directly on academic self-efficacy of students.

**Self-efficacy and advancement motivation**

The meaning of advancement motivation is “impulses of success, desire and enthusiasm for success and involving in activities that success in them requires one’s capabilities” (Slavin, 2010). Self-efficacy is a basic motivational component that defines what students do with their mental capacity, knowledge and the skill that they have learned. This is the reason that students with more powerful self-efficacy, compared to other students, show more academic advancement (Pajares, 1996).

Self-efficacy by internal motivation, result in one’s endeavor in an environment motivationally and achieve self-efficacy belief. The nature induces activity in individuals like an unseen teacher to enclose different capacities in different stages (Sharifi Daramadi, 2001).
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Usually, students with higher self-efficacy, achieve tremendous success in academic situations (Bandura, 1993). Vaiten (1989) also believes that there is a relation between advancement motivation and the need for overcoming difficult tasks, performing better than others and following the highest standards (cited in Karen, Rutler and Smitt, 2005). Therefore, having higher academic motivation induces ones to benefit his or her full capacity to reach the goals and then access higher levels of self-efficacy. It is obvious that there are interaction and dynamism between subsets of self-efficacy and advancement motivation (Kadivar, 2003).

Khadem Doost (2010) in his study on “motivational strategy in learning motivation of mathematics academic advancement by self-efficacy mediating and learning styles of second grade female students of Yasooj” showed that self-discipline by self-efficacy mediating will affect directly on motivational beliefs and academic advancement. Bordikor (2011) in his study on “comparative assessment of the relation between advancement motivation, self-efficacy, self-esteem and academic advancement in intelligent and normal students of Isfahan” showed that there is a significant relation between success, motivation and academic advancement and also there is a relation between academic advancement and advancement motivation and self-efficacy and self-esteem. The subjects of this study were 400 intelligent and normal students.

Ja'farBalaghati, (2012), in his study on “the relation between thinking styles and self-efficacy advancement motivation of employees of Fars Province Regional Water Organization” showed that there is a significant relation between self-efficacy and advancement.

HoseiniManesh (2013) in his study on “the relation between emotional creativity and self-efficacy with academic performance self-efficacy, by mediating of advancement motivation in female high school students of Koohdasht” showed that self-efficacy directly and indirectly has positive relation with academic performance with mediating of advancement motivation.

Researchers reported that there is a relation between self-efficacy of students and other motivational structures, their performance and their academic success (Pajaras, 1996). Mimi (2004) in his study showed that there is a positive relation between academic self-efficacy and academic motivation. Nilsen (2009) also showed that self-efficacy and academic motivation affects positively on students' academic performance. Zimmerman (2000) showed that positive beliefs of students about their self-discipline, learning improve their self-efficacy in academic performance and finally result in academic performance improvement. This means that self-motivated activities of students are affected by their self-efficacy beliefs. Cheng and Chiou (2010) showed that the students with more self-efficacy adjust higher level of goals for themselves that finally lead to their success.

Assumption 2: self-efficacy of students directly effects on advancement motivation of students

Scientific self-optimism and advancement

Seligman (1998) among positive psychologist is the first one that studied on optimism. Researchers suggest that optimism is important as much as capability and motivation. Carver and Scheier (2002) pointed out that optimism is positive expectation of what will happen in future. Optimism shows a status of cognition, emotion and motivation regarding the future (Peterson and Park 2004). Felson and philips (1984) for the first time introduced the relation between optimism and advancement optimism. According to them, the method of optimistic documents will increase positive emotions such as hopefulness and pride after success and will distance fear and anxiety (Noori and Janbozorgi. 2008). Pritchard and Wilson (2003), in their study on students of universities showed that there is a positive correlation between academic outcomes and motivation. Nonis and Wright(2004) studied on the mediating effect of optimism regarding academic capabilities and performance. Their study showed that higher capability with higher optimism will improve academic performance. In another study, Ruthing, Haynes, Perry & Chipperfield (2007) investigated the relation between academic optimism and academic
performance and students’ health. The results show that academic optimism predicts better performance in homework, better final average scores and less academic erosion (MohebiNooredinVand, Shahani Yeylaghand Pasha Sharifi (2014).

Hoy and Smith (2007) in their study on “assessment of the relation between academic optimism and academic advancement of urban students of primary schools” found that, assuming variables of social and economic status are controlled and properties of sociological researches are considered, academic optimism act as a basic predictor of academic success of students and by controlling environmental-biological properties can somehow improve academic enhancement of students.

Ekeh and Njoku (2014) in their study on “academic optimism, academic motivation and emotional capability of student of comprehensive schools” showed that students with higher emotional capabilities and academic motivations have higher academic optimism too.

**Assumption 3:** academic optimism effects directly on academic advancement motivation of students

### 2. Methodology

**Population, sample, and method of sampling**

The method of present study is descriptive-correlative. Statistical populations of the present study are all students of the high schools of Birjand which were 2520 persons. To define the volume of the sample, cluster sampling and Kerjecie and Morgan’s Table was used. According to Morgan table, for a population of 2520 persons, the appropriate sample is 335 persons. In this study, 325 questionnaires were distributed among students and finally 296 questionnaires were analyzed.

**Study tools**

**Self-efficacy of students questionnaire:** this scale includes 24 questions and 3 subscales including: academic self-efficacy (8 questions), social self-efficacy (8 questions), emotional self-efficacy (8 questions) that are adjusted according to Likert’s 5 ranges scale with ranges of never to very much by Muris (2002). The internal consistency of this questionnaire showed that the alpha coefficient was fluctuating between 0.73 to .0.90. Generally validity and reliability of this questionnaire were satisfactory (Karimzadeh and Mohseni, 2006, BaniAsadi and Pour Shafei 2012, Esmaili 2013, Nasirpour 2014). In this study, reliability of the test was 0.92.

**Academic optimism questionnaire of students**

This scale contains 28 questions and 3 subscales including students’ trust (10 questions), students’ perception of academic pressure (8 questions), and school identity (10 questions). These questionnaires were adjusted in Likert’s 5 ranges scale by T-ShanenMooranand et al., (2012). This questionnaire was run by HassanZadeh and its reliability coefficient was determined 0.94. Likewise, the validity of this questionnaire was calculated by correlation method. After Varimax rotation, the sum of extracted amount defines 76.87 percent of the variance. In this study also the coefficient reliability generally defined 0.91. Likewise, the amount of Cronbach’s alpha for subscale of students’ trust was 0.88, for student perception of academic pressure was 0.72 and for school identity was 0.78.

**Advancement motivation questionnaire**

Hermans’s advancement questionnaire contains 29 multiple choice questions. Hermans (1970) used content validity method to test the validity of the tests. Its foundation was previous study about advancement motivation. Hermans (1970) calculated the basic form of this test with Cronbach’s alpha and retesting as 0.82 and 0.85. He also calculated the validity coefficient of this questionnaire with advanced behavior as 0.88 (SoleymaniFar, Shabani, 2013). In recent study the reliability coefficient is 0.81.
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3. Findings

296 students of high school took part in this study. 37.8 percent were in the second grade, 37.8 percent were in the third grade and 28.4 percent were pre-university students. The volume of the second grade was the most and the pre-university was the least. Among these students 31.8 students were studying humanities, 45.9 percent were studying mathematics and physics, 22 percent were studying experimental sciences. Students of experimental sciences were the least.

Table 1: Bivariate correlational analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student trust in teachers</td>
<td>3/14</td>
<td>1/00</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>0/88</td>
</tr>
<tr>
<td>Student academic press</td>
<td>3/76</td>
<td>0/89</td>
<td>0/556**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>0/72</td>
</tr>
<tr>
<td>Identification with school</td>
<td>3/51</td>
<td>0/86</td>
<td>0/548**</td>
<td>0/644**</td>
<td>1</td>
<td></td>
<td></td>
<td>0/78</td>
</tr>
<tr>
<td>Academic Self-efficacy</td>
<td>3/32</td>
<td>0/67</td>
<td>0/258**</td>
<td>0/288**</td>
<td>0/331**</td>
<td>1</td>
<td></td>
<td>0/75</td>
</tr>
<tr>
<td>Academic achievement Motivation</td>
<td>2/94</td>
<td>0/34</td>
<td>0/403**</td>
<td>0/538**</td>
<td>0/570**</td>
<td>0/430**</td>
<td>1</td>
<td>0/81</td>
</tr>
</tbody>
</table>

Note: *P<0.05; **p<0.01

First question: how is the status of students’ academic optimism and its components?
Academic optimism of students with an average of 3.45 and t value of -1.13 was not significant in levels less than 0.05. However, noting the value of average test, it is higher than the mean. Trust component of students with an average of 3.14 and t value of -6.07 is meaningful in levels less than 0.01 (P<0.01). Noting to test value (t=3) average of student trust is higher than the mean. The component of student perception of academic pressure with an average of 3.76 and t value (4.95) is not meaningful in level less that 0.01 (P<0.01). Noting to the value of the test, the average is higher than the mean. The component of school identity with an average of 3.51 and t value (0.13) is not meaningful in level less than 0.05 (P>0.05) but noting to the value of the rest, the average is higher than the mean.

Second question: how is the status of academic self-efficacy of students?
Academic self-efficacy of student with an average of 3.32 and t value of 8.18 is meaningful in significant level less than 0.01 (P<0.01). Given then value of the test t=3, the average is higher than the mean.

Third question: how is the status of academic advancement motivation of student?
Academic advancement motivation variable with an average of 2.95 and t value of 22.73 is meaningful in significant level less than 0.01 (P<0.01) and given the test value (t=2.5) the average is higher than the mean.

In the following we will discuss about correlation coefficient between the study variables. The correlation coefficient between academic self-efficacy and academic optimism is 0.342 and the correlation coefficient between academic advancement motivation and academic optimism is 0.584 and with academic self-efficacy is 0.430 and is meaningful in level less than 0.01. The most amount of correlation is between academic advancement motivation and academic optimism and the less correlation is between academic self-efficacy and academic optimism. The correlation coefficient between academic self-efficacy and student trust is 0.258, with the students perception of academic pressure is 0.288, with school identity is 0.331. Likewise, the correlation coefficient between academic advancement motivation and students trust is 0.403, with student perception of academic pressure is 0.538, with school identity is 0.570 and academic self-efficacy is 0.430 and is meaningful in a level less than 0.01. The most correlation is between academic advancement motivation and school identity and the less correlation is between academic self-efficacy and students’ trust.
Table 2. Standardized and unstandardized regression weights

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized estimate</th>
<th>Standardized estimate</th>
<th>SE</th>
<th>T</th>
<th>F</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Self-efficacy</td>
<td>Academic Optimism</td>
<td>0.294</td>
<td>0.342</td>
<td>0.047</td>
<td>6.244***</td>
<td>38.992***</td>
</tr>
<tr>
<td>Academic achievement Motivation</td>
<td>Academic Self-efficacy</td>
<td>2.230</td>
<td>0.430</td>
<td>0.089</td>
<td>8.176***</td>
<td>66.849***</td>
</tr>
<tr>
<td>Academic achievement Motivation</td>
<td>Academic Optimism</td>
<td>0.251</td>
<td>0.584</td>
<td>0.020</td>
<td>12.343***</td>
<td>152.338***</td>
</tr>
</tbody>
</table>

Note: ***p<0.001

First assumption: academic optimism affect directly on academic self-efficacy of students

Multiple correlation coefficient is 0.342 and multiple correlation coefficients square is 0.12. Therefore, academic optimism of students defines 12 percent of their academic self-efficacy. Table 2 shows the result of zero assumption and multiple correlation coefficient square is 0 (R-square=0). When the correlation coefficient is 0, it means that there is not any linear relation between variables (academic optimism and academic self-efficacy). This table shows that the calculated F is equal to 38.99 with meaningful levels less than 0.05 (P<0.001). Therefore, the zero assumption is rejected that says there is not any linear relation between two variables.

The result of regression analysis suggests that the beta coefficient between the two variables of academic optimism and academic self-efficacy of student is standardized. Beta coefficient is positive here and statistically is meaningful at 0.05 levels. Therefore, student with higher scores in academic optimism will acquire higher academic self-efficacy scores.

The second assumption: academic self-efficacy affect directly on academic advancement motivation of students

The multiple correlation coefficient is 0.430 and multiple correlation coefficient square is 0.19. Therefore, academic self-efficacy of students defines 19 percent of their academic advancement motivation. Table 2 suggests testing zero assumption and multi variables correlation coefficient is 0 (R-square=0). When the square of the correlation coefficient is 0, it means that there is not any linear relation between variables (academic self-efficacy and academic advancement motivation). This table shows that the calculated F is 66.85 with meaningful levels less than 0.05 (P<0.001). Therefore, zero assumption that suggests there is not any linear relation between the two variables is rejected.

The result of regression analysis suggests that the beta coefficient between the two variables of academic self-efficacy and student advancement motivation is standardized. Therefore, students with higher academic self-efficacy, acquire higher advancement motivation too.

The third assumption: academic optimism effect directly on academic advancement motivation of students

The multiple correlation coefficient is 0.584 and the square of the multiple correlation coefficient is 0.34. Therefore, academic optimism of students defines 34 percent of their academic advancement motivation. Table 2 shows the result of zero assumption and suggests that the multiple correlation coefficient is 0 (R-square=0). When the squared correlation coefficient is 0, it means that there is not any linear relation between the variables (academic optimism and academic advancement motivation). This table shows that the calculated F is 152.34 with meaningful levels less than 0.05 (P<0.001). Therefore the zero assumption that suggests there is no linear relation between the two variables is rejected.

The result of regression analysis suggests that the beta coefficient between the two variables of academic optimism and advancement motivation of students is standardized. Beta coefficient is positive here and
The relation between academic optimism and motivation of academic advancement with respect of mediating role of academic efficacy of the second grade students statistically is meaningful at 0.05 levels. Therefore, student with higher scores in academic optimism will acquire higher advancement motivation scores.

**The forth assumption: Students’ academic optimism effects indirectly on academic advancement motivation by academic self-efficacy**

To investigate this assumption, regression and The Sobel test are used. To study this assumption, the standardized regression coefficient and their standard deviation are used by The Sobel test to investigate the mediating role of academic self-efficacy. As academic optimism of the students’ effects on their academic self-efficacy, and their academic self-efficacy effects on their advancement motivation, therefore, academic self-efficacy has a mediating role between these two variables. According to the findings, if the standardized regression coefficient falls, the mediating role of the variable will be defined. Given the amount of The Sobel test (4.67) and meaningful level of 0.01, it was cleared that academic self-efficacy variable can mediate between academic optimism and students’ advancement motivation.

**The fifth assumption: the conceptual model of the study has sufficient fit**

The most important finding of this study is accessing the structural equilibrium model that despite defining the mediating role of academic self-efficacy in relation between scientific self-efficacy and advancement motivation, it has also sufficient fit. Absolute fit is desirable. In appropriate models, $\chi^2/df$ should be less than 2. In the present model is 1.106 and shows that the model is fitted completely. Likewise, the index of RMSEA should be less than 0.05. In this model this index is 0.019. The index of $P$ should be less than 1. In this model this index is 0.352. The indices of CFI, TLI, NFI in appropriate models should be larger than 0.95. In this model these indices are 0.991, 0.998 and 0.999 respectively. According to chart 1, students’ academic optimism route coefficient on their academic self-efficacy is 0.38 and academic self-efficacy route coefficient on advancement motivation is 0.20. Likewise, students’ academic optimism route coefficient on advancement motivation is 0.59. All route coefficients are significant in levels less than 0.01.

![Figure 1. The Conceptual Model](image)

4. **Discussion and conclusion**

The concept of academic optimism emerged from the researches on positive psychology, optimism, social capital, and school comprehensive facilities. Hoy, Tarter and Hoy introduced this concept in 2006 for the first time. The goal of this study is investigating the relation between academic optimism and academic advancement motivation with respect to the mediating role of students’ academic self-efficacy. At first,
academic optimism status, advancement motivation and students; academic self-efficacy were assessed. Student self-efficacy was not meaningful, but noting to the average, was higher than that. Tschannen-Moran and et.al suggest that academic optimism of students is high in schools that have the following characteristics: they appreciate good scores; students respect those who get good scores, students try to improve their academic status, their schools are serious regarding their students learning, the amount of their academic advancements are challenged, teachers always are ready for help, teachers are accessible for discussing, students count on their teachers, their teachers committed in great tasks, the teachers are honest and the teachers listen to students really. To increase students’ academic self-efficacy, SoltaniMajd and etal., (2014) suggest that student should be familiarized with academic skills, they should use effective learning strategies such as planning, time management, senses concentration, memory enforcement, learn correct studying, taking note, summarizing, briefing and controlling their anxiety at the time of examination. In other hand, success in education enforces their self-efficacy as a positive experience.

Although there is many reasons for students’ failure and their lack of motivation such as poor academic performance, negative attitude toward school, adverse school atmosphere, weak relation between teachers and students, and level of parents’ education, there is practical strategies for improvement of students’ advancement motivation such as using academic novice methods, training expert teachers, and most important, teaching learning techniques and effective academic skills to students. These strategies in one hand lead to students’ academic success and in other hand create a positive attitude in students and help their mental health more than ever and improve their advancement motivation (Sommers and Sommers, 2012).

The result showed that academic optimism affect directly on academic self-efficacy and this effect is significant. These findings are compatible with previous funding such as (Sezgin and Ardogan, 2015, Salehiand et al., 2014; Tan and Tan, 2014; Danesh and et al., 2013), Beirami and Pour Faraj, (2013), Aryan Pour and Donyaroud, (2013), Mohammad Zadeh, (2014).

As academic optimism is formed by theoretical foundations of social cognition and social self-efficacy of Bandura, Koleman’s social capital theory, Sligman’s theory of organizational atmosphere and culture and also acquired optimism theory o Silgman, therefore, as expected and the findings also show, the more is academic optimism of the students, the more is academic self-efficacy.

Direct effect of academic self-efficacy is significant. These findings confirm previous findings Pajares, (1996), Zimmerman, (2000), Mimi (2004), Nilsen(2009), Cheng and Chio, (2010), Akbarpour, (2013). This means that the students with high self-efficacyview their results positively. Consequently, high self-efficacy results in motivation improvement and internal motivation of the individuals. To define the positive and significant relation of self-efficacy and advancement motivation, Zimmerman (2000) suggest that positive beliefs of students about their self-discipline learning effect on their self-efficacy in academic performance and final results in improvement of students’ academic performance. This means that self-motivated academic activities of students are affected by their beliefs about their self-efficacy.

Findings show positive and meaningful relation of these two variables. These findings are compatible with studies of Bahrami and AbbasiandFard(2010), Peterson (2004), Karen at el(2005), SepehrianAzar(2013), Ekeh and Njoku (2014). In this ground, Peterson (2000) showed that optimism as a psychological trait positively is related to perseverance and advancement motivation. It means that optimistic individuals are more hopeful about their success. So, they are aggressive to reach their goals. According to Atkison, optimistic individuals with more chance agents persuade success more than others. So, their motivations for success also are more. Likewise, Ekeh and Njoku(2014) in their studies on “academic optimism, academic motivation and emotional capabilities of students in comprehensive schools” showed that students with higher emotional capabilities and academic motivation have higher academic optimism. They also suggest that encouragement and support of students result in positive
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perception of academic optimism. Consequently, their academic motivation and emotional capabilities will be increased.

Another goal of this study was proving that academic optimism of students by self-efficacy affect directly on advancement motivation. As findings show, academic optimism of students effect on their self-efficacy and also their academic self-efficacy effect on their advancement motivation. The results of Sobel tests showed that academic self-efficacy variable can act as a mediating variable between scientific self-efficacy and advancement motivation of students. In another part of the study, fit of conceptual model was studied. The result shows that conceptual model of the study fit sufficiently and significantly.

Restrictions:
As sample groups were students of the second grade, we should be cautious when we are generalizing the results. It is suggested that in future, the research shall be repeated with different age groups to generalize the result with more reliability.

Suggestions
- According to the findings for motivation improvement and academic optimism, it is suggested that the government should prepare facilities and resources of encouragement of students.
- The school principals should prepare programs to encourage teachers for achieving academic goals.

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