

Investigating the Relationship Between Optimism and Emotional Intelligence with Academic Self-Efficacy in Orumia High School Students

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Article History: Received: 14 July 2020; Accepted: 2 January 2021; Published online: 5 February 2021

Abstract:

BACKGROUND: The present study aims at the survey of the relationship between optimism and emotional intelligence with academic self-efficacy in high school students from Orumia in curriculum year of 2015-2016. For the same purpose, 234 individuals out of 613 students were selected based on Morgan's table as the study sample volume, including 117 individuals from third grade and 117 individuals from the fourth grade all majoring in math, humanities and natural sciences.

METHODS: The sampling method of choice has been stratified sampling. To gather the required information, Bar-on's emotional intelligence questionnaire, Scheier's and Carver's inventory of optimism and Morgan-Jenkins's self-efficacy questionnaire were applied. To analyze the data, descriptive statistic methods such as mean, median, exponent and standard deviation were used and univariate and multivariate regression tests were simultaneously implemented in the inferential statistics part.

RESULTS: The results indicated that there is a significant relationship between the emotional intelligence and optimism with academic self-efficacy. Furthermore, the regression results demonstrated that emotional intelligence and optimism account for 81% and 16%, respectively, of the students' academic self-efficacy.

CONCLUSIONS: To investigate the study hypotheses, firstly, there was made use of correlation coefficient based on the data distribution normality. The results showed that there is a significant relationship between emotional intelligence and optimism with academic self-efficacy.

Keywords: optimism, emotional intelligence, self-efficacy

Introduction

Academic life is an important dimension of every individual's life that influences the other aspects of a person's life to a great extent. Students' academic achievement has always been the main challenge for the families and the ministry of education in parallel. Institutional achievement has effects on the learning and the institutional learning exerts the same effect on the academic achievement and the teacher should try to improve the learning preconditions and elevate the teaching style quality so as to increase the students level of motivation in respect to learning the various curriculum topics thereby the students can gain success and become more self-confident in their own learning abilities.¹ Self-efficacy is an individual's judgment of the abilities s/he has for organizing and carrying out a series of works to serve specified types of functions.

Emotional intelligence incorporates one's own recognition and management of emotions. In fact, it is the emotional intelligence that applies and advances the intellectual intelligence to meet its intentions.² Combined models most frequently blend the personality aspects based on non-

theoretical methods. This final result embraces features, states and skills, competencies and abilities that, all in all, are realized as emotional intelligence.³

On the other hand, positivism effects have drawn the attentions by a great many of the psychologists and health specialists during the recent years.

Optimism is correlated with psychological advantages such as lesser anxiety, mental wellbeing, life satisfaction, positive affection, the creation of resilience, less intensified depression and desperation symptoms and active problem-solving coping style.

Asgari, Kahrizi, and Kahrizi⁴ indicated that there is a positive and significant relationship between self-efficacy and academic achievement. In a study carried out by Bahadori Khosroshahi, and Hashemi Nosrat Abad,⁵ it was shown that there is a positive and significant relationship between optimism and mental wellbeing as well as between self-efficacy and psychological wellbeing. In a study conducted by Babapur Khayroddin⁶ it was the positive and significant relationship between emotional intelligence and optimism and the role of optimism in moderating the relationship between the emotional intelligence and exhaustion feeling that was found complying with the results obtained in similar studies. Another result found in the foresaid research was that there is a positive and significant relationship between emotional intelligence and self-efficacy and the existence of an effect exerted by self-efficacy in the variations between the emotional intelligence and feeling of exhaustion.

The findings by Zare'an, Asadullahpur, and Bakhshipur show there is a relationship between the emotional intelligence and mental health.⁷ Besides mental health, emotional intelligence is also associated with feeling of self-efficacy. The findings by Muhammadamini et al.⁸ indicate that there is a positive and significant relationship between emotional intelligence and self-efficacy beliefs that means the students featuring higher emotional intelligence show higher levels of self-efficacy, as well. William et al.⁹ believe that high emotional intelligence is correlated with better performance in areas such as self-regulation, expressiveness, independence, sympathy, self-control, optimism and self-efficacy.

Students and adolescents are considered as valuable capitals of a country and the way they are educated and raised is in a direct relationship with the future of the countries thus studying and identifying the factors contributing to their academic achievement is of a particular importance. The students' future of education and the problems and difficulties pertaining to them and the officials and parents' concerns and worries have all be the main reason the author was persuaded to conduct a research in this regard. The result obtained herein can identify and offer the ways the intelligence and optimism as well as self-efficacy could be enhanced to the parents and education custodians to be utilized in students' educational and instructional methods. Therefore, the researcher proposes and tests three hypotheses to investigate the relationship between optimism and emotional intelligence and academic self-efficacy in Orumia high school students. They are:

Hypothesis One: there is a relationship between emotional intelligence and optimism with academic self-efficacy in high school students.

Hypothesis Two: there is a relationship between aspects of emotional intelligence and academic self-efficacy in high school students.

Hypothesis Three: there is a relationship between aspects of optimism with academic self-efficacy in high school students.

Methods

Procedure

Study Method: the current research paper is a descriptive study of correlation type. The study has been carried out based on figuring out the correlation and relationship between emotional intelligence, optimism and academic self-efficacy.

Participants

Study Population, Study Sample and Sampling Method: the study population includes all Orumia's grade three and grade four high school girl students majoring in math, natural sciences and humanities in the curriculum year of 2015-2016. The total number of the study population was 613 individuals ranging in age from 16 to 19 years of age. To determine the study sample (234 individuals), Morgan table was used and a stratified random method was applied to select the schools of interest and finally the necessary explanations were provided through attending the schools and eventually questionnaires were administered.

Instruments

Bar-on emotional intelligence test. Bar-on emotional intelligence questionnaire was designed in 1980 addressing the question that why are some people more successful in life than the others? The test contains 117 questions and 15 scales, including emotional self-awareness, expressiveness, self-esteem, self-development, independence, sympathy, social accountability, interpersonal relations, realism, flexibility, problem-solving, mental pressure tolerance, impulse control, self-image and happiness. The answers are organized based on a 5-point Likert's scale from "completely agree", "agree", "to some extent", "disagree" to "completely disagree". The test was mentally normalized in Iran by Samu'ee.¹⁰ Face validity tests were implemented individually and in person on 500 girl and boy university students from various age groups, 18-40 years of age and fields of study in Azad and State Universities, namely Isfahan University, Isfahan's Medical Sciences University and Islamic Azad University, Khurasgan Branch.

Optimism Test: revised test of life orientation by Scheier, Carver and Bridges (1994). The test is the shortened and revised version of the life orientation questionnaire that assesses the individual differences in optimism-pessimism. The respondents were asked to rate the extent to which they agree with each of the items based on a 5-point Likert's scale ranging from 0 (completely disagree) to 4 (completely agree).

Academic Self-Efficacy. To measure academic self-efficacy, there was made use of Morgan-Jenkins self-efficacy questionnaire (1999). The questionnaire contains 30 questions scored based on a Likert's scale in a spectrum of four-choice answers from "completely agree", "somewhat agree", "somewhat disagree" to completely disagree" and three subscales of talent, effort and context.

Data Analysis

The study population included 234 individuals, 117 third grade high school girl students and 117 fourth grade high school students, ranging in age from 16 to 19 years of age were selected based on a random stratified method and questionnaires were administered to them. The results of the data analyses have been presented in the upcoming sections.

The descriptive statistics including the tables, means and so on are presented here.

In Table 1, the descriptive statistics pertaining to the emotional intelligence and optimism variables relationship with academic self-efficacy have been evaluated in all the testees. The mean scores obtained for the respondents in terms of the relationship between the emotional intelligence and optimism with academic self-efficacy were 264.1068, 27.6966 and 86.6880 and the variances were 593.589, 20.101 and 197.520, respectively. Also, the standard deviation

values were 24.3636, 4.4833 and 14.0541, respectively. The complete results are illustrated in Table 1.

Table 1. general description of the variables

Variables	Mean	Variance	Standard deviation	Number
Emotional intelligence	264.1068	593.589	24.3636	234
Optimism	27.6966	20.101	4.4833	234
Academic self-efficacy	86.6880	197.520	14.0541	234

Table 2 presents the descriptive statistics pertaining to the emotional intelligence in all the study participants. According to the results of the table, the highest mean inter alia the optimism components is 21.6410 and the lowest mean for the problem-solving components and impulse control are 15.0214 and 15.0940, respectively. The complete results have been illustrated in table 2. Also, the descriptive statistics pertaining to the optimism components indicate that the testees' means in optimistic temperament and pessimistic disposition are 8.8932 and 6.6581, respectively. In addition, variances were 3.306 and 7.179 and standard deviations were 1.8182 and 2.6793, respectively.

Table 2. emotional intelligence components description

	Emotional intelligence components	Mean	Variance	Standard deviation	Number
Emotional intelligence	Problem-solving	15.0214	7.437	2.7271	234
	Happiness	19.4103	18.028	4.2459	234
	Independence	17.1496	12812	3.4824	234
	Mental pressure tolerance	17.1282	8.112	2.84820	234
	Self-actualization	17.2393	13.968	3.73741	234
	Emotional self-awareness	17.5598	22.024	4.69301	234
	Realism	16.6282	10.913	3.30343	234
	Interpersonal relations	19.9744	9.914	3.14857	234
	Optimism	21.6410	8.231	2.86899	234
	Self-esteem	18.1709	14.168	3.76405	234
	Impulse control	15.0940	21.450	4.63145	234
	Flexibility	18.1581	17.104	4.13566	234

	Accountability	17.3590	10.145	3.1856	234
	Sympathy	18.0855	19.709	4.43953	234
	Expressiveness	15.4872	12.088	3.47675	234
Optimism components	Optimistic dispositions	8.8932	3.306	1.8182	234
	Pessimistic dispositions	6.6581	7.179	2.6793	234

To test the normality of the data obtained for the study variables, there was made use of Kolmogorov-Smirnov test. The results are presented in the table below.

Table 3. data normality kolmogorov-smirnov test

	Academic self-efficacy	Optimism	Emotional intelligence
Kolmogorov-Smirnov Z	1.163	2.042	1.292
Significance level	0.133	0.477	0.071

In data normality test, the null hypotheses, generally, assumes that data follow a normal distribution and the opposite assumption implies the inverse. According to the table, the significance level for the entire data is found larger than 0.05, thus it can be stated that the distribution of the data obtained from the study questionnaires is normal. Serving the same purpose, parametric statistics can also be used to test the hypotheses.

Hypotheses Tests:

H1 there is a relationship between the emotional intelligence and optimism with academic self-efficacy of the students.

To test the hypothesis mentioned above, firstly, correlation coefficient is utilized based on the data distribution being found normal.

Table 4 demonstrates the correlation coefficient for the relationship between the emotional intelligence and optimism with academic self-efficacy. According to the results of the table, the correlation coefficient between the emotional intelligence and optimism with academic self-efficacy is 0.366 and it is statistically significant in 0.01% level. Also, the correlation coefficient between the emotional intelligence and optimism is 0.368 and it is, as well, found significant in 0.01% significance level.

Table 4. correlation coefficient of the relationship between the emotional intelligence and optimism with academic self-efficacy

Variables	Academic self-efficacy	Emotional intelligence	Optimism
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Academic self-efficacy	Pierson correlation	1		
	Significance level	234		
	Number			
Emotional intelligence	Pierson correlation	0.842**	1	
	Significance level	0.001		
	Number	234	234	
optimism	Pierson correlation	0.366**	0.368**	1
	Significance level	0.000	0.000	
	Number	234	234	234

**=0.01 significance level

Hs 2 there is a relationship between the aspects of emotional intelligence and academic self-efficacy in high school students.

To investigate the aforesaid hypothesis, firstly, according to the normality of the data distribution and based on the existence of a relationship between the emotional intelligence and academic self-efficacy, there was made use of multiple regression tests the results of which have been given in the following table.

In Table 5, regression coefficient was found 0.857 and the determination coefficient was obtained equal to 0.73 that are in fact reflective of the extent to which the dependent variable variations can be accounted for by the independent variable extant in the model. According to the fact that the amount of observed f-value is significant in 0.01 level thus it can be stated that about 73% of the changes in students' academic self-efficacy can be elaborated by the aspects of emotional intelligence and the complete results can be seen in Table 5.

Table 5. regression analysis results of the relationship between emotional intelligence and high school students' general academic self-efficacy

Multiple regression coefficient	Determination coefficient	Adjustment coefficient	F-value	Significance level (Sig.)
0.857	0.734	0.716	40.108	0.000

Table 6 indicates that there is a significant relationship between the aspects of emotional intelligence and academic self-efficacy. Based on the results obtained from the table, the amount of beta coefficient obtained for independence and flexibility is significant in 0.05% level and it is 0.01% for the other components. The results are thoroughly given in Table 6.

Table 6. Regression table of the relationship between emotional intelligence aspects and academic self-efficacy

Indicators	Non-standardized coefficients		Non-standardized coefficients	t-value	Significance level
	Beta coefficient	Standard error	Beta		
x-axis	49.630	6.151	-	8.069	0.010
Problem-solving	0.522	0.202	0.101	2.587	0.000
Happiness	0.526	0.133	0.159	3.947	0.000
Independence	0.317	0.108	0.178	2.036	0.043
Mental pressure tolerance	0.590	0.188	0.119	3.137	0.002
Self-actualization	0.407	0.141	0.108	2.892	0.004
Emotional self-awareness	0.377	0.114	0.126	3.322	0.001
Realism	0.624	0.163	0.147	3.827	0.000
Interpersonal relations	0.903	0.184	0.202	4.918	0.000
Optimism	0.734	0.195	0.150	3.767	0.000
Self-esteem	0.561	0.147	0.150	3.819	0.000
Impulse control	0.493	0.125	0.162	3.949	0.000
Flexibility	0.169	0.146	0.050	1.161	0.047
Accountability	0.535	0.164	0.121	3.261	0.001
Sympathy	0.412	0.132	0.130	3.126	0.002
Expressiveness	0.474	0.159	0.117	2.983	0.003

H3 there is a relationship between the aspects of optimism and high school students' academic self-efficacy.

To investigate the hypothesis, firstly, there was made use of multiple regression tests according to the normal distribution of the data and based on the existence of a relationship between optimism and academic self-efficacy. The results are provided in the following table.

In Table 7, regression coefficient is 0.588 and the determination coefficient is 0.34 which are in fact indicative of the extent to which the independent variable existing in the model explains the dependent variable variations. Because the F-value observed in the above table is found significant in 0.01% level, thus it can be stated that approximately 34% of the students' self-efficacy changes can be accounted for by the aspects of optimism. The complete results can be seen in Table 7.

Table 7. Regression analysis results pertaining to the relationship between the aspects of optimism and the students' general academic self-efficacy

Multiple regression coefficient	Determination coefficient	Adjustment coefficient	F-value	Significance level (Sig.)
0.588	0.346	0.340	61.117	0.000

Table 8 shows that there is a significant relationship between aspects of optimism and academic self-efficacy in 0.01 significance level and the amount of beta found for the optimistic disposition is 0.444 and it is 0.301 for the pessimistic disposition. Therefore, optimistic disposition explains 44% of the academic self-efficacy variations for which the quotient of the pessimistic disposition is 30%. The negative signs denote inverse coefficients meaning that the more the pessimistic disposition is lowered the higher the academic self-efficacy would go and vice versa. The complete results are presented in Table 8.

Table 8. Regression table of the relationship between aspects of optimism and academic self-efficacy

Indicators	Non-standardized coefficients		Non-standardized coefficients	t-value	Significance level
	Beta coefficient	Standard error	Beta		
x-axis	66.637	4.619	-	14.425	0.000
Optimistic disposition	3.435	0.421	0.444	8.151	0.000
Pessimistic disposition	-1.576	0.286	-0.301	-5.512	0.000

RESULTS

it has to be asserted that emotional intelligence and optimism are associated with the students' academic self-efficacy. This has to be taken as meaning the increase in emotional intelligence enhances the students' academic self-efficacy and contributes to the academic achievement

DISCUSSION AND CONCLUSION

To investigate the study hypotheses, firstly, there was made use of correlation coefficient based on the data distribution normality. The results showed that there is a significant relationship between emotional intelligence and optimism with academic self-efficacy.

The results of this hypothesis corresponds to the parts of the results obtained by Bahadori Khosroshahi,¹¹ Zare'an, Asadullahpur, and Bakhshipur,⁷ Muhammadamini, Narimani, Berahmand, and Sobhi,⁸ and William et al.⁹

To elaborate on the findings, it has to be asserted that emotional intelligence and optimism are associated with the students' academic self-efficacy. This has to be taken as meaning the increase in emotional intelligence enhances the students' academic self-efficacy and contributes to the academic achievement. Also, optimism can be of great effect on academic self-efficacy and finally on the students' academic success. Bandura¹² defines self-efficacy as the individual's perception of his or her own abilities and that to what extent a behavior is performed successfully. He considers three aspects for self-efficacy, namely magnification (the individual's belief in his or her own proper performance in complicated and difficult situations and for accomplishing difficult tasks), robustness (perseverance and endurance in confrontation with the barriers) and generalization (generalizing one's own self-efficacy in a certain situation to various situations). Quotes from May carried out a study on the emotional intelligence in talented students and stated her belief in the idea that the students featuring higher levels of emotional intelligence are more capable in recognizing their own and the others' feelings and then utilizing such an insight in guiding their behaviors and resisting their same-age counterparts as well as in exhibiting good temperaments and all these factors contribute to the enhancement of the social skills.⁵

On the other hand, multiple regression analysis was used in order to predict academic self-efficacy from the aspects of emotional intelligence. The results indicated that there is a significant relationship between the aspects of emotional intelligence and academic self-efficacy.

The results of this hypothesis conforms to the results obtained in the studies carried out by Zare'an, Asadullahpur and Bakhshipur,⁷ Akbari and Miri,² Muhammadamini et al.,⁸ William et al.⁹

In this regard, Zare'an, Asadullahpur and Bakhshipur⁷ and Bakhshipur, showed that emotional intelligence, besides being associated with psychological health, is in a relationship with the self-efficacy feeling. Muhammadamini et al.⁸ showed, in a study, that emotional intelligence is significantly correlated with the students' self-efficacy. William et al.⁹ demonstrated that emotional intelligence is associated with self-efficacy and better performance in areas such as self-regulation, self-expression, independence and optimism. Moreover, the studies indicate that the individuals with strong self-efficacious beliefs make greater efforts to carry out their assignments and spend much more time on their homework so as to gain higher marks. To elucidate the aforementioned findings, it has to be asserted that emotional intelligence is correlated with the students' academic self-efficacy which means the increase in emotional intelligence provides for the elevation of the students' academic self-efficacy and contributes to their academic achievement. Overall, emotional intelligence plays a considerable role in fostering the students' positive self-efficacy beliefs as well as their positive self-concept and causes their mental and psychological health to be enhanced and the emotional intelligence components bring about a higher level of self-efficacy feelings in the students thereby they acquire higher rates of success in academic and occupational situations. Finally, to predict academic self-efficacy via the aspects of optimism, there was made use of multiple regression tests. The results indicated that there is a significant relationship between the aspects of optimism with academic self-efficacy. The negative signs, shown in the above tables, is reflective of the inverse coefficients meaning that the more the pessimistic dispositions are lowered the higher the self-efficacy would go and vice versa. The results of this hypothesis are consistent with the results obtained in studies by Babapur Khayroddin,⁶ Khosroshahi and Hashemi Nosrat Abad.¹¹

Bahadori Khosroshahi and Hashemi Nosrat Abad,¹¹ indicated that there is a positive and significant relationship between optimism and self-efficacy. Optimism can act as a supportive factor against the academic problems and other issues,¹⁴ and it can also pave the way for self-education. To elaborate these latter findings, it has to be mentioned that since optimistic temperaments is positively and significantly associated with academic self-efficacy, therefore it can improve the students' academic achievement. Furthermore, having pessimistic approaches lowers the academic achievement grounds. Optimists explain the negative events or experiences through attributing the reasons behind them to external, transient and certain factors. Quite contrarily, pessimists elaborate the negative incidents or experiences by attributing the reasons behind them to internal factors. In addition, optimism and positive ideations can enhance the immunity system and, resultantly, the healthiness of the body. Also, optimism can lead to a better performance and thus students' academic self-efficacy.

LIMITATIONS

The lack of controlling for all the intervening variables such as the environmental conditions, affective and economical status and general health of the testees.

The data for the current research paper has been solely acquired via questionnaires and there is not made use of any other method or technique. Such a direct method might have been the cause of biases in the testees in providing answers to the study questions and therefore the results might have lost part of their accuracy and this would bring about an inability in generalizing the findings.

SUGGESTIONS AND IMPLICATIONS FOR SCHOOL HEALTH

According to the results obtained herein, it is suggested that the families and the education system as well as the schools try to provide for the grounds on which emotional intelligence can be enhanced in the students and then the students can be more accurately evaluated in terms of their academic achievements and educational accomplishment. Also, the principals and the teachers of the schools are recommended to provide the students with the ground upon which the emotional intelligence can be fostered in the classrooms and school environment thereby they can enjoy a higher rate of control over the students' academic self-efficacy and success and, finally, the students should be provided with encouraging and supportive educational grounding and environment (optimism) that promote positivism spirits and good temperedness which will be followed subsequently by positive outcomes like the increase in the self-education and eventually academic achievement.

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