

Evaluating the Role of Self-efficacy and Perfectionism in Predicting Students Academic Achievement

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Abstract: The present study investigated the relationship between self-efficacy and perfectionism with the education progress of students (girls and boys) in the third year high school Bastak City. The study method was descriptive and correlational. The population of the study formed all students (girls and boys) in the third year high school Bastak City. The statistic sample size of study was obtained 160 people by Cochran Formula. The study sample was considered 160 people. Random sampling was simple. The instruments used in this study were: Perfectionism Hill Scale, Self-efficacy questionnaire, average of first semester of students. After analyzing the data, the following results were obtained: Self-efficacy significantly predicted education progress. So that with the amount of $\beta = 0.247$ and the $t = 3.172$, in significance level $\alpha = 0.002$ (less than $p = 0.01$), were positive predictor of education progress. Positive perfectionism significantly predicted education progress. So that with the amount of $\beta = 0.161$ and the $t = 2.029$, the significance level $\alpha = 0.044$ (less than $p = 0.05$), were positive predictors of education progress. Negative perfectionism in level of insignificant is predicted with education progress. So that with the amount of $\beta = -0.129$ and the $t = -1.622$, has been in non-significant level $\alpha = 0.107$ (more than $p = 0.05$). Self-efficacy and negative perfectionism significantly predicted education progress. Self-efficacy with the amount of $\beta = 0.209$ and the amount of $t = 2.442$, in significance level $\alpha = 0.016$ (less than $p = 0.05$), positive predictive of education progress and negative perfectionism with amount of $\beta = -0.158$ and the amount of $t = -1.999$, in significance level $\alpha = 0.047$ (less than $p = 0.05$), was negative predictor of education progress.

Keywords

self-efficacy, perfectionism, education progress.

1. Introduction

Students' academic achievement and evaluating factors affecting it are the issues that constitute a large proportion of educational sciences. For this reason, interested researchers have long been attempting to clarify the various aspects of this field and have achieved remarkable results. Among the factors that could affect the academic achievement of students is their living environment.

Constant action and reaction occurs between man and his environment and this relationship is in constant fluctuation [1]. Perfectionism is a personality trait that can be both constructive and beneficial and also neurotic or dysfunctional.

Motivating force of each individual is toward growth and self-actualization. All people need to develop their potential to the greatest extent possible and to grow beyond their current

situation. It is a natural tendency of people to take the path to achieve their potential, although it is possible that they face some environmental and social barriers. Reaching perfection and the full use of all the talents, capacities, and potentialities are of great value and in this field, perfectionism is a positive and favorable factor, but also there exists the other negative and extremist side of perfectionism [2]. Self-efficacy, as another one of affective variables, is a degree of belief in one's own ability to do specific tasks. Bandura's theory of self-efficacy insists on the role of confidence and self-esteem in one's ability to show the desirable behavior. Family is the most important factor in forming self-efficacy. In the path to leading a healthy life and adapting to the world around them, human beings are required to obtain a myriad of physical and mental abilities and family is the

most important context for the growth and excellence in physical, behavioral and personal characteristics. They are born to the world in this context and they continue their life based on their numerous capabilities and also based on their close relationship to the manners of their environment [3].

The goal of any educational activity is learning. Learning is done by learners to lead to a change in them in the course of a learning activity. Various factors can affect a student and hinder the learning process. Students' academic achievement is one of the most significant indicators that can be used to evaluate learning process and also the success of the educational system in achieving their objectives [4].

Self-efficacy beliefs are strong behavioral predictors that affect motivation through choices we make and the goals we choose. High self-efficacy leads to perseverance and more effort in the face of difficulties [5]. Self-efficacy is one of the key variables in Bandura's social and cognitive theory. Theoretical Principles of self-efficacy has been tested in a variety of disciplines and environments and is supported by a growing theoretical and empirical foundation. Self-efficacy is a sustainable feeling of confidence in one's own aptitudes and abilities and helps to cope effectively with stressful situations. Self-efficacy is a sense of self-esteem and self-worth, and a sense of competence and effectiveness in dealing with life. Self-efficacy is the feeling of confidence in one's ability to control one's thoughts, feelings and activities and thus affect the outcome of actions. Self-efficacy expectations affect the actual performance of individuals, their emotions, their choice of behavior and finally the amount of effort they spend on specific tasks [5]. Berns [6] defines perfectionism as one's belief that they are perfect and associates it with the feeling of anxiety, stress and fear that they fail to live up to their expectations. Based on the views of Hill et al. [7], perfectionism is a common debilitating phenomenon and perfectionists are sensitive to negative emotional states such as guilt, feelings of failure, low self-esteem and negligence.

Numerous studies have investigated the relationship between the variables of self-

efficacy, perfectionism and academic achievement. Rice and Dellwo [8] believe that perfectionism tends to have two components: positive perfectionism and negative perfectionism. Positive perfectionism has significant correlations with high personal standards, favorable performance, positive coping, realism and acceptance of personal limitations, while those with negative perfectionism are apt to make basic mistakes and have high levels of self-doubt and self-criticism, which are the predictors of negative psychological consequences such as anxiety, depression, lack of self-esteem and shame.

Results of a study carried out by Zhang et al. [9] showed that the negative aspects of perfectionism, such as doubts about capabilities and concerns about mistakes are positively correlated with academic burnout, while the positive aspects of perfectionism, such as setting personal standards appropriate to the student's ability, are negatively correlated with academic burnout.

Stöber et al. [10] showed that positive perfectionism is associated with the goals the setting of which lead to function, while negative perfectionism is correlated with goals which lead to avoiding function. In a study, Lindadi and Dinter [11] investigated the relationship between perfectionism of parents and that of their adolescent children in a sample of 90 subjects. It showed a negative correlation between perfectionism of parents and the self-efficacy of their children.

In their studies, Multon et al. [12] examined the relationship between self-efficacy and academic performance and persistence. The results showed significant direct correlation between self-efficacy and academic performance and persistence. Therefore considering the determining role of perfectionism and self-efficacy of students in their academic achievement, this study seeks to answer this question: to what degree can perfectionism and self-efficacy predict students' academic achievement?

2. Materials

This study was descriptive and correlational. The sample consisted of all the students (boys

and girls) of the third year of high schools in Bastak, Hormozgan with a total number of 2100. The sample size was calculated using Cochran formula. A number of 160 participants were selected by simple random sampling, but due to the loss of participants, 157 questionnaires were used for the final analysis. The instruments used in this study included Positive and Negative Perfectionism Scale of Terry-Short, et al. [13] Self-Efficacy questionnaire and students' GPA of the first semester in 2013-2014. The GPA was used for assessing their academic achievement.

Positive and Negative Perfectionism questionnaire was designed by Terry-Short, et al. [13]. This questionnaire is composed of 40 items, among which 20 items measure positive perfectionism and the other 20 items measure negative perfectionism. Cronbach's alpha coefficients of positive and negative perfectionism are 0.83 and 0.81, respectively. They are acceptable. For evaluating the self-efficacy of students a questionnaire developed by Nezami, Schwarzer and Jerusalem was used. The questionnaire consists of 20 items which are later revised and the number decreased to only 10 items.

The values of all the items related to agents were reported as acceptable. Partial correlation coefficients used that obtained coefficients between the items were desirable. The tool is able to detect 45% of the variance in self-efficacy. For evaluating the test, consistency coefficient that is Cronbach's alpha. The coefficient was calculated to be 0.80. Since the questionnaire is a 5 degree Likert type, each item is scored from 1 to 5. Therefore, the maximum score of the questionnaire would be 50. Multiple regressions were used for testing

the hypothesis. Statistical calculations were carried out using SPSS software.

3. Results

The hypothesis of this study suggests that self-efficacy and perfectionism predict students' academic achievement. In order to investigate this hypothesis, a multiple regression with simultaneous entry of variables was exploited. Results are presented in the table below. table 1. shows the regression correlation coefficient to be $r = 0.297$. It also shows the coefficient of determination, $R^2 = 0.088$, between two variables of self-efficacy and perfectionism as the predictive variable and academic achievement as the dependent variable. It is concluded that the predictive variables can explain the dependent variable of academic achievement with a rate of 8.8%. According to the table 2., analysis of one-way variance showed that the relationship calculated with $f = 4.949$ is significant ($p < 0.05$). Therefore the obtained relationship is the best linear combination possible between self-efficacy and perfectionism with the dependent variable of academic achievement. As can be seen in the table above, self-efficacy and negative perfectionism significantly predicted academic achievement. Self-efficacy with $\beta = 0.209$ and $t = 2.442$ in the significant level of $\alpha = 0.016$ ($p < 0.05$) predicts academic achievement positively, while negative perfectionism with $\beta = 0.158$ and $t = -1.999$ at non significance level of $\alpha = 0.047$ ($p < 0.05$) cannot predict academic achievement. Therefore considering the existence of the relationship and its being linear and β coefficients obtained, the hypothesis was confirmed.

Table 1. Summary of the results of regression analysis regarding perfectionism and self-efficacy and academic achievement

R Coefficient	Coefficient of determination (R^2)	Adjusted regression	Standard error
0.297	.088	.071	2.41740

Table 2. Analysis of one-way variance, regression analysis regarding perfectionism and self-efficacy and academic achievement

Variable sources	total	scale	Mean square	F	Significance level
Regression	86.757	3	28.919	4.949	.003
Remaining	894.102	153	5.844		

Total	980.859	156			
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Table 3. Coefficients β and t values and significant levels of perfectionism, self-efficacy and academic achievement

sources	Correlations		β	T	Significance level
	B correlation	error	coefficients		
constant	13.450	2.031		6.623	.000
Self-efficacy	.097	.040	.209	2.442	.016
perfectionism	.026	.022	.102	1.175	.242
perfectionism	-.042	.021	-.158	-1.999	.047

4. Conclusion

This study aimed at evaluating the role of self-efficacy and perfectionism in academic achievement of students in the third year of high school in Bastak, Hormozgan. The results showed that the predictive variables could explain the dependent variable of academic achievement with a rate of 8.8%. This result is in line with the study carried out by Lindadi and Dinter [11] The most influential source of self-efficacy is the achievement of activities. Individuals engaged in activities interpret the outcome of their actions. They use these interpretations to develop beliefs and attitudes about their ability to engage in tasks and activities in future. Normally the results that are interpreted as successful will increase self-efficacy. In the final analysis, it is the direct experience of success or failure that significantly affects the efficacy. Eliot and Sheldon [14] defined mastery goals as focusing on the development of competence or mastery over the tasks. Since this motivation leads people toward success, the assumption is that the need for motivation is the foundation of mastery goals.

If we succeed repeatedly in our tasks, our sense of efficacy increases. But if we fail in succession, our sense of efficacy decreases. Once we feel high efficacy in a specific field, temporal failures will not bother us, in this case it is likely that we attribute our failures to lack of effort or poor strategy and we try again. Then, if we succeed, our sense of efficiency will increase even more.

Results show that the most influential source of self-efficacy is activity achievement.

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Individuals engaged in activities interpret the outcome of their actions. They use these interpretations to develop beliefs and attitudes about their ability to engage in tasks and activities in the future. Therefore, if students believe that they can learn by making reasonable efforts, they try and insist on dealing with problems, focus their attention on the problem and feel more relaxed and optimistic and utilize effective strategies. Findings also showed that positive perfectionism is correlated with goals which lead to stimulate activity. Therefore, in order to achieve effectiveness and academic success, the Ministry of Education will have to organize workshops in order to train staff and students.

Lengthy questionnaires and a limited sample of high school students are among the most significant limitations of the present study which should be considered in generalizing the results. Accordingly, it is recommended that similar studies be performed using larger samples and as a comparative study.

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