

Comparing Hope and Academic Self-Efficacy Beliefs in High and Low Achievement Students: A Casual-Comparative Study

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ABSTRACT

Present study is a casual-comparative research that investigated hope and self-efficacy in high and low achievement students in high schools of Bandar Abbas. Using purposive sampling method and pair-wise matching, 60 high school students selected and were divided into two high achievement and low achievement groups. For measure the self-efficacy, the motivational strategies learning questionnaire (MSLQ) is used and hope is measured by Snyder hope scale. Results of study indicate in both variables (hope and self-efficacy), differences were in favor of High achievement group. In the end of article, findings are discussed and practical recommendations are presented.

KEYWORDS: hope, self-efficacy, high and low achievement students

1. INTRODUCTION

Undoubtedly, one of the most important objectives of education is to deal with the cognitive aspect of the learner's personality and to assist them to gain academic achievements in different courses and lessons. Accordingly, in all the studies conducted in area of the educational psychology, the cognitive variables related to academic achievement, such as intelligence and ability have been widely studied. However, in contrast with the regular public beliefs, the intelligence and the ability are not the singular determinants of the academic achievement [1]. The studies have shown that the emotional and social variables also effect on the academic achievement. Constructs such as self-efficacy, self-regulation and goal orientation are amongst these variables that should be considered.

On the other hand, the psychological studies have historically been focused on the patient-oriented and pathological aspect [2]. Inspired by positive psychology, the new research approaches has put their own emphasis on the optimal abilities and functions of the human beings [3 and 4]. Constructs including hope and mental health are the variables being studied in this regard.

The studies conducted in relation with academic performance and relationship of this variable with other emotional constructs such as self-efficacy and hope is a relatively new filed and it is the research's necessary prerequisite to deal with it. The existing literature indicates that lack of paying attention to emotional variables affecting academic achievement, will face the emotional status of the learners with problems and on the other hand, it will have an negative impact on their academic achievements. Therefore, today, the academic performance is not considered as a cognitive performance, but any success of this performance includes growth of all the cognitive, emotional, social, behavioral and biological dimensions. In different studies, both two types of emotional and cognitive variables have been so far considered; however, there has been a small level of attention and care paid for the positive emotional variables like hope. The research evidences suggest that there are significant relationships between self-efficacy and the academic achievement [5 and 6], hope and academic performance [7, 8], and self-efficacy and hope [9]. Self-efficacy has been studied in the cognitive and motivational areas and its effect on the academic and motivational variables has been verified. The self-efficacy construct has been first introduced by Bandura [10]. The self-efficacy refers to the beliefs of the individuals in his/her abilities to learn or to conduct a behavior in an acceptable level [10]. It originates from a more extensive framework named "Cognitive-social theory" which assumes that progress of the humans depends on the interactions that occur among the individual's behavior, personal factors (beliefs, thoughts and so on) and environmental conditions. Learners obtain the required information for assessing self-efficacy from their own real performances, vicarious experiences, verbal persuasion and the physiological symptoms and responses. The self-efficacy beliefs effects on homework selection, attempts, insistence, perseverance and achievement or progress [10, 11].

Being hopeful is one the main characteristics of the human helping him/her to overcome frustration, follow ups his or her own goals and reduce the sense of unendurable future [12]. In Erikson's theory, hope is one of the fundamental characteristics of the humans shaped at the early stages of life. During the initial stage of the psychosocial growth, in Erikson's theory, hope is the positive outcome of the crisis of trust against distrust [13]. In this regard, Snyder et al [14] presented a relatively new motivational-cognitive model entitled "theory of hop". This theory which has been accompanied by some variations during the recent years [15, 16, 17], has introduced the construct of hope which is considered as an important construct in the newly emerged area of positive psychology [18]. Hope reflects the perception of the individual about his/her own capacities to clearly conceptualize the objectives and to adopt some specific strategies for reaching these objectives. The other function of hope is to stimulate and maintain stimulation for applying these strategies. Therefore, the component of hope consists of two components. The hope's agency consists of developing and improving personal goals, and the hope pathways component which indicates planning in order to achieve these goals [17].

The relationship between hope and the academic performance has also been studied at different studies. The studies have shown that highly hopeful individuals have an effective performance in the educational fields. The scores obtained at the hope scale indicate a significant predictor of the academic performance for all the educational degrees [19 and 20]. The hope significantly anticipated the improvements made by elementary school students and the scores of Iowa's basic skills test [21]. Also, hope anticipated the academic achievement of the pre-high school and high school students [22]. Such a relationship has also been reported for the university students [23]. It's specified that, students with low levels of hope experience high anxieties especially during competitive tests [24]. On the other hand, students with higher levels of hope make use of more appropriate attributions when faced with failure and attribute their failures to lack of enough effort or wrong study methods [25]. In general, based upon the conducted studies and the existing theoretical framework, the hope construct plays a critical role for the educational performance. In line with such research trends which have drawn its own attention, on the one hand, to the emotional variables affecting academic performance and also the capabilities of the learners on the other hand, the goal of the present study is to investigate the variables such as academic self-efficacy beliefs and hope in high achievement and low achievement students.

2. MATERIALS AND METHODS

The present research is a causal-comparative study that variables such as hope and academic self-efficacy beliefs of the high achievement and low achievement high school students, has been studied. Using purposive sampling method and pair-wise matching, 60 high school students selected and were divided into two high achievement and low achievement groups. In order to measure the self-efficacy, the motivational strategies learning questionnaire (MSLQ) of Pintrich and Smith [26] is used. Coutinho and Newman [27] used Cronbach's alpha method to study the questionnaire reliability and the reliability coefficient was estimated equivalent to 0.90. In the present study, in order to study the factorial structure of the motivational learning strategies' questionnaire, the statistical method of the confirmatory factor analysis was used and its factorial structure was confirmed. For measuring the hope variable, the Snyder et al.' hope scale was used. The reliability coefficients of the hope agency and hope pathways subscales in the study conducted by Snyder et al. [14] have been reported as 0.66 and 0.74 respectively. The factorial structure of this questionnaire has been declared to be satisfactory by its producers [14].

In the present study, the confirmatory factor analysis statistical method was used for evaluating the factorial structure of this scale and its factorial structure was confirmed. In the section of descriptive statistics, the data's average and standard deviation were calculated and in the inferential statistics section, multivariate analysis of variance (MANOVA) was used for testing the difference existing between the two groups.

3. RESULTS

For analysis of data, SPSS software, 16 versions is used. The descriptive statistics for dependent variables are presented in table 1.

Table 1. Descriptive Statistics of dependent variables in High achievement and Low achievement groups

| Variables | Group | Mean | Standard deviation | N |
|----------------|------------------|-------|--------------------|----|
| Hope | High achievement | 39.6 | 6.37 | 30 |
| | Low achievement | 29.23 | 9.51 | 30 |
| Self- efficacy | High achievement | 38.06 | 5.48 | 30 |
| | Low achievement | 26.96 | 6.26 | 30 |

Preliminary analysis was first conducted to identify outliers and missing cases. Then the assumptions for MANOVA and ANOVA were tested and no violations observed. Then a MANOVA test is conducted to assess the overall effect of achievement levels on two dependent variables: hope and self-efficacy. The analysis revealed statistically significant group differences as a result of achievement levels (Wilks' Lambda= 0.024, $F(2, 57) = 31.03$, $p = 0.001$). Results of analysis are presented in table 2.

Table 2. Multivariate Tests: Achievement level

| Effect | | Value | F | Hypothesis df | Error df | Sig. |
|--------|--------------------|-------|---------------------|---------------|----------|-------|
| Group | Pillai's Trace | 0.521 | 31.035 ^a | 2.000 | 57.000 | 0.001 |
| | Wilks' Lambda | 0.479 | 31.035 ^a | 2.000 | 57.000 | 0.001 |
| | Hotelling's Trace | 1.089 | 31.035 ^a | 2.000 | 57.000 | 0.001 |
| | Roy's Largest Root | 1.089 | 31.035 ^a | 2.000 | 57.000 | 0.001 |

Follow up ANOVA analysis, indicated that there is significant differences between groups in hope and self-efficacy. Based on this analysis, F value for hope variable calculated equal with 24.75 which was significant at the 0.001 level, ($F_{1, 58} = 3.45$, $p < .001$), and F value for self-efficacy variable calculated equal with 53.36 which was significant at the 0.001 level too, ($F_{1, 58} = 53.36$, $p < .001$). Results of analysis are presented in table 3 and table 4.

Table 3. ANOVA Achievement levels on hope variable

| Source | Sum of squares | Df | Mean of squares | F | significance level |
|---------------|----------------|----|-----------------|-------|--------------------|
| Between group | 1612.01 | 1 | 1612.01 | 24.75 | 0.001 |
| Within Groups | 3804.56 | 58 | 65.69 | | |
| Total | 76487 | 59 | | | |

Table 4. ANOVA Achievement levels on self-efficacy variable

| Source | Sum of squares | Df | Mean of squares | F | significance level |
|---------------|----------------|----|-----------------|-------|--------------------|
| Between group | 1848.15 | 1 | 1848.15 | 53.36 | 0.001 |
| Within Groups | 2008.833 | 58 | 34.635 | | |
| Total | 67297 | 59 | | | |

4. DISCUSSION

This study aims to investigate the differences between high achievement and low achievement students on hope and self-efficacy variables, which in both, differences were in favor of High achievement group. These findings are in accordance with the results of the previous researches. Many research findings show that the self-efficacy is correlated with the academic achievement's outcomes [28, 11]. Also, self-efficacy has relationship with self-regulation in particular, the application of effective learning strategies. Self-efficacy, self-regulation and application of cognitive strategies are positively correlated and they predict the academic achievement [29]. The students with high level of self-efficacy compared to the students with low level of self-efficacy demonstrate higher abilities in terms of problem solving and monitoring their own performances and also they have higher persistence [30]. The writing's self-efficacy also positively correlates with the objectives of the students in terms of academic achievement, satisfaction from the scores and the actual academic achievement [31].

On the other hand, the researchers have shown that adolescents and adults having higher levels of hopefulness about topics related to school, sport, health protection, problem solving and mental well-being demonstrate better performances [32]. Hope effectively influences on many aspects of life since hopeful people are better able to determine effective goals and make proper decisions regarding such goals. The research findings show that higher level of hope in one person has a positive correlation with self-esteem and perceived competence and has a negative correlation with the symptoms of depression [21]. Also, regarding the future orientation, the individuals enjoying higher levels of hope were more optimistic and in case of following up goals, they were more concentrated on success than on failure.

Generally, based on present study findings, teachers and counselors in schools must more pay attention to student's characters such as hope and self-efficacy and designing a number of interventions to increase hope and self-efficacy level in students.

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