



FULL LENGTH ARTICLE

Structural Modeling of the Relationship between Emotional Creativity, Self-Efficacy And Academic Motivation Among Students

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ABSTRACT

The purpose of this study is to investigate the structural relationship between: emotional creativity, self-efficacy and academic motivation. The Statistical population included all third grade students in public schools Shabestar in the 2013 school year. For the statistical sample, 380 students were selected. Data were collected through three standardized questionnaires: Averill (2005) emotional creativity, Scherer and et al (1982) self-efficacy and Vallerand's (1992) academic motivation. Data analysis was performed using structural equation [5,20,22]. The results showed that all parameters are acceptable in assumed model. About 12 percent of variance of self-efficacy variable was explained by emotional creativity construct. Also 25 percent of variance in academic motivation construct was explained by the variables of self-efficacy and emotional creativity.

Keywords: emotional creativity, self-efficacy, academic motivation, structural equation modeling.

INTRODUCTION

In the field of education, a particular type of motivation, that is called Academic Motivation, has attracted the attention of educators and psychologists. Academic motivation means that person is active in environmental education for earning an academic degree [20]. One of the most important theories of academic motivation is self-determination theory (SDT) [11]. This theory explains dynamic, motivational, emotional and well-being needs of people in immediate social context [7]. In Deci and Ryan Model (1985) academic motivation process consists of three important components, namely intrinsic motivation, extrinsic motivation and a motivation.

Internal motivation refers to a motivation that students are doing their homework spontaneously. Without external rewards, doing one's homework is valuable and satisfying [18]. External motivation refers to a motivation that individuals will perform for rewards and external encouragement. In other words, external motivation involves engaging in activities which are a means for achieving other goals. Finally, a motivation describes the individuals whom do not receive any motivation for activities such as satisfaction, and internal and external incentives. As a result, avoid doing activities [18].

Ryan and Deci research (2000) has shown people, with high achievement motivation to progress, preferring doing hard jobs over easier ones. than to easy assignments, and enjoy of challenging work, and homework. They have well-established and specific goals. They are diligent and they are accountable and take responsibility [18].

There are various factors which affect motivation and are dependent on the students' physical, social, cognitive, and emotional progression. It seems that emotional creativity, motivation, and Student's sense of self-efficacy to cope with educational problems are among those variable related with academic achievement

Creativity in the field of emotions or emotional creativity was presented by [6]. He believes that emotions are form of social interaction, social norms and rules rather than the product of biological forces. And when these norms and rules change, Emotions change, as well [5].

Based on the this feature, Averill proposed possibility of emotional creativity. Creativity is emotional and cognitive component [5]. argues that people with emotional creativity spend more time to understand emotions intuitively. Sternberg (2006) argues that creativity is not a one-dimensional concept [20]. And he

believes that multi-dimensional cognitive and emotional capabilities result in creativity. Pekrun (1992) suggests that emotions can influence the processes of internal and external motivation [17]. Having strong emotional reactions to the task, provides the expected signs for the success or failure. Pajarsand schunk(2002) argues that individuals with respect to the emotional signs of success and failure assess their efficiency level [15]. Stevens and et al (2004) believe that the interpretation of self-efficacy on people is extended [21]. Human comprehension of self-efficacy, affects the patterns of thinking, motivation, performance and emotional arousal of people. According to Bandura, self-efficacy expectations plays vital role than other expectations in motivation and individuals' behavior [16]. Reviewing the related literature, it seems the relationship between academic motivation and emotional creativity has not been studied. Also about correlation self-efficacy with academic motivation, most studies have been conducted among students in higher age levels. Therefore, the purpose of this paper is to study through a model of structural relationships between components of emotional creativity and self-efficacy with academic motivation among high school students [22].

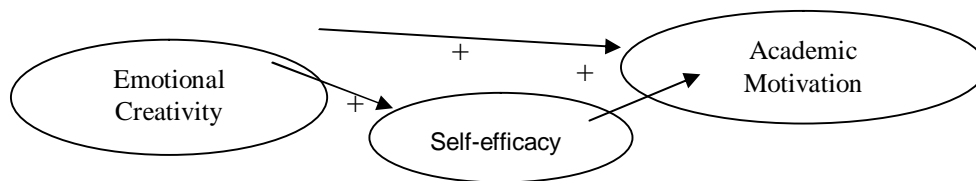


Figure 1: Conceptual Model of Research

Method

This study is kind of prediction and non-experimental causal among correlation researches. The statistical population of this study was includes all high school students in Shabestarin academic year of 2013 of (n:281), (420 boys and 401 girls). From among them, 380 of girls and boys students were selected randomly using cluster sampling. Three standardized questionnaires were used for data collection; creativity emotional Averill (2005) and self-efficacy Sherrer and et al (1982) and academic motivation Vallerand (1992). To determine the reliability of measurement instruments in research, Cronbach's alpha Coefficients were used and these coefficients obtained: Emotional Creativity (0.810) self-efficacy (0.805), intrinsic motivation (0.825), extrinsic motivation (0.831) and a motivation (0.769). The data collected were analyzed through the methods of descriptive statistics (mean, standard deviation, minimum, maximum and Pearson correlation coefficient) and using structural equation modeling [5, 19].

Results

In the Table 1, descriptive indicators and the original variables of research are presented that including: Emotional creativity and its sub-components namely innovation, readiness and effectiveness, self-efficacy and sub-scales of academic motivation (intrinsic motivation, extrinsic motivation and a motivation).

Table 1: Descriptive indicators main variables of research

	Mean	Std. Deviation	Minimum	Maximum
Emotional Creativity	97.5508	14.16321	59.00	136.00
Novelty	45.7535	8.65690	22.00	68.00
Preparedness	23.4958	3.74902	10.00	34.00
Effectiveness	28.8968	5.24029	14.00	42.00
Self-efficacy	60.6554	8.74893	25.00	81.00
A motivation	8.7014	5.38375	4.00	28.00
intrinsic	57.7521	11.39633	25.00	82.00
extrinsic	65.7679	11.77905	19.00	84.00

	Emotional Creativity	Preparedness	Effectiveness	Novelty	Self-efficacy	intrinsic	extrinsic
Emotional- Creativity	1						
Preparedness	.781**						
Effectiveness	.810**	.480**					
Novelty	.745**	.353**	.396**				
Self-efficacy	.202**	.232**	.226**	.010			
intrinsic motivation	.337**	.367**	.269**	.151**	.326**		
extrinsic motivation	.254**	.276**	.156**	.163**	.123*	.597**	
A motivation	-.033	-.081	-.079	.086	-.309**	-.349**	-.201**

Table 2: Matrix of correlations between variables of the structural model

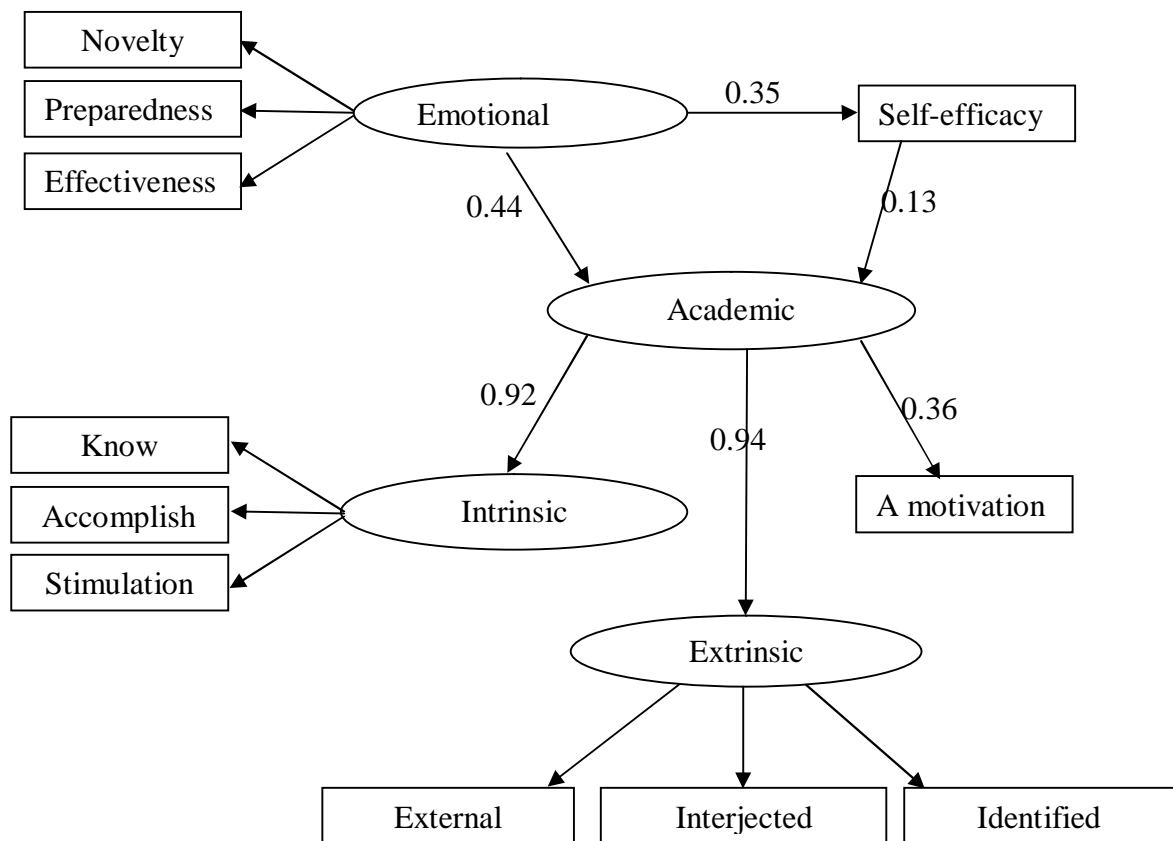
* p< 0.05 level (2-tailed) ** p<0.01 (2-tailed)

The following correlation matrix is correlation between variables indicative of the structural model is presented.

As can be seen in the above model emotional creativity structure 0.44 effect on academic motivation directly also this structure 0.35 effect on self-efficacy. Also self-efficacy variable has effect on academic motivation directly(0.13).In the following table the initial model parameters and final of study is presented.

Table 3: Initial and final structural model of the fitness indicators

Indices Fitness	(χ^2)	df	/df ² χ	PMR	RMSEA (90% CI)	CFI	NFI	IFI	TLI	GFI	AGFI
Model Initial structure	158.303	41	3.86	0.071	0.091 (.077; .107)	0.907	0.880	0.908	0.876	0.921	0.873
Model final structure	114.62	38	3.01	0.071	0.077 (.061; .093)	0.939	0.913	0.940	0.912	0.941	0.898



In Table 3 Initial and final model indices of study is presented for comparison. The main difference, the basic model, and the final model this is based on the model modification indices, three covariance was added in the final model, and it improves the fit indices. Based on the above table, the chi-square (χ^2) equal to 114.62 and a significant amount of degrees of freedom equal to 0.001 and 38 and the degrees of freedom of the chi-square, 3.01, respectively.

The chi-square (χ^2) model, is in level, 0.001 and this shows that there is no model of fitting but considering the chi-square (χ^2) is influenced by sample size strongly and in the larger amount of the samples size, such as sample size in this study, it becomes meaningful, always. Thus, with the desirability of other indicators, this does not matter. The researchers believe that if the ratio of chi-square to degrees of freedom (χ^2/df)

be less than 5, or 3, indicates the model fitting [14,12]. As it is seen, the value of this index for the given model is located in the desired range (equal to 3). Also the researchers of the field SEM believe that amount of indices GFI and AGFI, higher than 0.90 is appropriate and RMSEA index value between 0.05 to 0.08 is acceptable, values between 0.08 to 0.10 to fit the medium and higher values of 0.10 low fit of the model are considered (Ho, 2006) as the acceptable range [13].

DISCUSSION

This study aimed at investigating the structural relationships between three constructs emotional creativity, efficacy and academic motivation, and it was conducted in the form of a model. The results showed that the model assumes fit perfect experimental data of research, completely. Bandura believes that self-efficacy expectations, has more critical role in motivation and behavior of person than other expectations [16]. According to Stevens and et al (2004) human perception of self-efficacy affects patterns of thinking, motivation, performance and emotional arousal of the individual [21].

On the other hand, Pekrun (1992) suggests that emotions can influence the processes of internal and external motivation, which means that having strong emotional reactions to one's duty provides signs for success or failure. Pajars (2002) believes that individuals could assess their efficiency level considering the emotional signs of success and failure. It can be seen after over viewing, it can be concluded that these findings are consistent with the theoretical bases of this study [17,15].

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