



# A Study of Academic Motivation in Relation to Creativity

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## ABSTRACT

Education should not only develop conceptual understanding but also foster creative thinking. So, knowledge acquisition and learning to think creatively should go hand in hand. This study attempts to find out whether academic motivation is related to creativity and students with different levels of creativity differ in their academic motivation. Sample consisted of 825 students including 272 boys and 253 girls studying in eighth class. Mehdi's test of 'Thinking Creatively with Words' was used for measuring creativity as well as fluency, flexibility, and originality dimensions of it. 'Academic Motivation Inventory' of J. P. Srivastava was used for measuring academic motivation. Product moment coefficient of correlation and two-way(3x2) ANOVA were used to analyze the data. It was found that creativity and academic motivation are positively related; female students are more academically motivated than male students; students with high creativity are more academically motivated than those with moderate or low creativity; and students with high creativity are more academically motivated than those with low creativity.

**Keywords:** Education, Mehdi's test, motivated, creativity, knowledge

Creativity extends our experience and knowledge. It takes us from known and the familiar to the novel and the what might be (Pickard, 1990). It is an outcome of self-directed transformational endeavour and this outcome cannot be known in advance. However, it is predictable. It can be facilitated as well as taught. Development of creativity depends upon

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the creative climate in the classrooms and participation of students in programmes specifically designed for fostering creativity. Though creativity needs to be developed, thrust on convergent type achievement tests can stifle it. Students have to live in a competitive globalized world. So, they have to be divergent but at the same time their academic interests are to be safeguarded. Our education system needs to support academically motivated creative students. Gruber (1981) saw creative person as one caught up in a self-initiated dynamic process. Gardner (1982) observed that the child is not always sufficiently aware of rules and conventions to be able to appreciate the novelty of departure from them.

Our new education policy lays emphasis on development of students' creative potential and conceptual understanding. Handling students with strong motivation and creativity has always been a challenging task for teachers. Ospid, Raesi and Irani (2020) found positive relationship between fluidity, expansion, initiative and flexibility components of creativity and academic progress. Blaskova (2014) opined that creative abilities in conjunction with strong motivation can be developed. Using Khatena-Torrance Perception Inventory, Naderi *et al.* found aspects of creativity to be related to academic achievement for both males as well as females. Rojas (2015) found that academic motivation predicts grades and creativity is orthogonal to academic achievement. Abdelaziz (2017) reported that there is a statistically significant positive correlation between total creative thinking score and motivation to learn creative thinking. Viega (2009) concluded that literature shows that presence of creativity and existence of high motivation go together. Khan and Rizwanuddin (2015) found creativity and achievement motivation to be positively related. Mustafavi (2020) stated that students' educational motivation and their creativity are positively related. Geeta Rani and Dalal (2013) found that students' creativity and achievement motivation are not related and students with high and low creativity do not differ significantly from each other on achievement motivation. The present study attempts to find out whether academic motivation is related to creativity, and students with high, low and moderate level of creativity differ from one another on academic motivation.

## Methods

Sample for the study consists of 825 students including 272 boys and 253 girls studying in eighth class of 14 schools of Prayagraj city. Mehdi's test of 'Thinking Creatively with Words' was used for measuring creativity as well as fluency, flexibility, and originality dimensions of it. 'Academic Motivation Inventory' of J.P. Srivastava was used for measuring academic motivation. Product moment coefficient of correlation and two-way (3×2) ANOVA were used to analyze the data.

## RESULTS AND DISCUSSION

**Table 1:** Coefficients of correlation between creativity and academic motivation

Sl. No.	Variable	Correlation for		
		Boys	Girls	Total sample
1	Fluency	.4988**	.4901**	.4946**
2	Flexibility	.4954**	.5167**	.5100**
3	Originality	.3479**	.3675**	.3294**
4	Creativity total	.4712**	.4284**	.4419**

\*\*significant at .01 level

Table 1 shows that total creativity and academic motivation are positively related ( $r = .4419$ ,  $p < .01$ ). For boys the value of correlation is .4712 while for girls it is .4284. It also reveals existence of positive relationship between academic motivation and fluency ( $r = .4946$ ,  $p < .01$ ), flexibility ( $r = .51$ ,  $p < .01$ ), and originality ( $r = .3294$ ,  $p < .01$ ) dimensions of it. For boys, academic motivation is positively related to fluency ( $r = .4988$ ), flexibility  $r = .4954$ ) and originality ( $r = .3479$ ) dimensions of creativity. For girls, academic motivation is positively related to fluency ( $r = .4901$ ), flexibility ( $r = .5167$ ) and originality ( $r = .3675$ ) dimensions of creativity. So, it can be inferred that academic motivation is positively related to creativity.

**Table 2:** Summary of Analysis of Variance showing differences in academic motivation among students with high, moderate and low level of creativity

Sl. No.	Source of variation	Sum of squares	Df	Mean square	F ratio
1	Creativity (A)	72605.734	2	36302.867	51.309**
2	Gender (B)	8663.745	1	8663.745	12.245**
3	A × B	195.086	2	97.543	0.138
4	Within cells	367209.000	579	707.532	

\*\* significant at .01 level.

**Table 3:** Mean scores for academic motivation for students with high, moderate and low motivation

Gender	Less creative	Moderately creative	Highly creative	Total
Male	173.68 (N= 34)	197.09 (N= 191)	216.04 (N= 47)	197.44 (N= 272)
Female	179.88 (N= 33)	205.04 (N= 185)	226.04 (N= 35)	204.75 (N =253)
Total	176.73 (N= 67)	201.00 (N= 376)	220.6 (N=82)	

**Table 4:** t-ratios showing significance of paired comparisons of means on academic motivation for students with different levels of creativity

Sample	t-ratios for groups compared		
	HC-LC	HC-MC	LC-MC
Male	5.9879**	4.4683**	4.7288**
Female	7.1018**	4.9024**	5.0062**
Total	10.0162**	6.0466**	6.8814**

LC: Less Creative, HC: Highly Creative, MC: Moderately Creative.

\*\*significant at .01 level.

Table 2 shows that *F*-ratio for the main effects of creativity ( $F = 51.309, df = 2, 519$ ) and gender ( $F = 12.245, df = 1, 519$ ) are significant at .01 level. *F* ratio for effect of interaction between creativity and gender ( $F = 0.138$ ) is not significant at .05 level. Perusal of mean scores given in table 3 and t-ratios given in table 4 reveals that students with high creativity are more academically motivated than those with moderate; low creativity and students with high creativity are more academically motivated than those with low creativity. This is true for male as well as female students. Mean scores on academic motivation for female students are higher than those for male students. It means that female students are more academically motivated than male students.

To sum up it can be inferred that creativity and academic motivation are positively related and higher the creativity more will be academic motivation. These findings draw indirect support from the results of studies done by Helson and Crutchfield (1970) and Girijesh Kumar (1976). The former reported that creative mathematicians score more on achievement motivation than average mathematicians while the latter found that highly creative individuals are more achievement oriented than low creative individuals. Khillani (1979) and Saxena (1981) also found significant positive relationship between need achievement and creativity. Results of the study derive support from the findings of Naderi *et al.* (2010), Rizvanuddin (2015), Abdelaziz *et al.* (2017), and Khan and Mostafavi *et al.* (2020) who found positive relationship between creativity and motivation. Contrary findings have been reported by Geeta Rani and Dalal (2013). Creativity requires perseverance and drive to accomplish the process of instigating and sustaining academic behaviour that is directed towards expression of creativity. Amabile (1987) was of the view that motivational orientation drives an individual to persist at problem solving.

The findings of the study imply that efforts to develop academic motivation and creativity can go hand in hand. More creativity draw cannot adversely affect academic motivation.

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