

## RELATIONSHIP BETWEEN EXPECTATIONS OF CLASSROOM ENVIRONMENT AND STUDENT ACHIEVEMENTS IN THE FIRST YEAR STUDENTS OF GIRL'S HIGH SCHOOL IN TONEKABON

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### Abstract

The main objective of this study was to investigate the relationship between relationship between expectations of classroom environment and student achievements in the first year student of girl's high school in Tonekabon. Type of research was descriptive – correlation. Statistical population included all the first year student of girl's high school in Tonekabon that were 420 students. 200 samples were selected using random sampling method. Data collection tool includes questionnaires to expect from the class that has the appropriate validity and reliability and total average of students at the end of the school year. Data obtained were analyzed using Pearson correlation coefficient and multivariate regression. The research results showed that: there is significant and positive relationship between expectation of classroom environment, friction, cohesion, discipline, competition with academic achievement ( $p < 0.01$ ).

**Keywords:** Expectation of Classroom Environment - Academic Achievement- Friction – Cohesion

### 1. Statement of Problem

Expected from classroom environment (desires and demands that students have classroom psychosocial climate) is one of the variables classroom psychosocial climate. Class as a small community and sub is made up from different students that in terms of experiences, culture, character and ... are different. These students bring their features to the classroom and therefore different psycho-social climate is dominant in classes (Ames, 2008). Thus, teachers and students are constituents of classroom psychosocial climate that the main objective is teaching and learning. Therefore is necessary that is held a decent climate in class for teaching and learning (Deweck, 2000). Decent climate is positive relations and purposeful that there are between teachers and students in the class and has "efficiency" (Ahmadzadeh, 2009).

Academic achievement means that are met expected educational levels and education organization become closer to predetermined goals. Academic achievement is increase learning, increase the level of scores and passing students in courses and grade (Hejazi, 2011). In different studies have shown that school-related variables such as classroom climate, the teacher-student relationship, class management by teacher, organizational behavior and gender are associated with student achievement (Ryan, 2009).

Classroom environment and school, school administration and teaching method of teachers have undeniable effects on school performances and cognitive processes. Perceptions of students are one of the important outcomes of school environment that has important role in

motivation, recognition and performance of students. Eccles (2012) found that high school students who perceive their teachers more controller and teachers have less decision-making opportunity, had lower levels of self-efficacy and motivation. Perceptions of school activities or classes are a wide range of processes, beliefs and attitudes including perceptions of control, supporting autonomy and choice and pleasure. Perceptions of school activity are influenced by several factors and follow certain consequences. For example Jentri & et al (2002) in examining the perceptions of class, gender differences and basis and found that for high school students (compared to primary school students) class educational activities has less enjoyable and appealing and there is less opportunity to choose. Hejazi (2011), in a study investigated the relationship between perception of classroom structure, thinking styles, approaches to learning and academic achievement. The results showed that there is positive and significant relationship between variables of classroom structure, type 1 of thinking styles and approaches of a deep learning with academic achievement and there is negative and significant relationship between type 2 of thinking styles and academic achievement.

Ghadiri (2012), in a study investigated the relationship between the expectation of the classroom environment and goal orientation with academic achievement of math in girl's students in third grade of high school. Result showed that there was significant relationship between perception of classroom environment and academic achievement in mathematics, but there was no significant relationship between goal orientation and mathematics achievement. Also multiple regression analysis showed that perception of the classroom environment can be a predictor of academic achievement in mathematics.

Kizlegnez (2009), in a study examined the relationship between perceived classroom structures on student achievement. The results showed that whatever students deal with surface approach with learning tasks, thus reduce their academic achievement. While deep approach enhances the intrinsic motivation and academic achievement.

Renjer (2009), in a study examined the relationship between perceptions of classroom environment and goal orientation. The results showed that there is positive and significant relationship between perceptions of classroom environment and goal orientation.

Sounger (2012) in a study examined the relationship between the expected classes with learning assignments. The results showed that if students with learning assignments deal with surface approach, in result their academic achievement will be reduced.

Thus understanding the class climate and expectations of classroom environment for teachers is an important, valuable and necessary. Scientific research in this case could help to provide appropriate psychosocial environment. Thus research hypotheses are as follows.

There is relationship between the expectation of classroom environment and academic achievement of students.

- 1- There is relationship between friction and academic achievement of students.
- 2- There is relationship between cohesion and academic achievement of students.
- 3- There is relationship between discipline and academic achievement of students.
- 4- There is relationship between competition and academic achievement of students.
- 5-

## **2. Research Methodology**

### **Statistical population, the sample size, sampling method and evaluating the sample size**

Since study aim is to examine the relationship between expectation of classroom environment and student achievement, thus research method is correlation. Statistical population included all the first year student of girl's high school in Tonekabon and randomly was selected 199 students as sample based on Krejcie and Morgan table.

### Tool of Data Collection

1. Questionnaire of expectation of classroom environment: this questionnaire consisting of 20 items which allows to individual expressed desires and their demands about what should be expectation of class. This questionnaire has four subscales, which include:

A) Friction: it includes 5 questions that show the disharmony with unfriendly behavior of students together.

B) Dependence (cohesion): includes 5 questions that show students' sense of belonging and dependence to each other and to the class.

C) Discipline (task-oriented): contains 5 questions and related to this topic that how students do their assignments and tasks on time and complete.

D) Competition: consists of 5 questions that show competition among students.

The validity of expectation of classroom environment is reviewed and approved by professors and advisors and other professionals. In order to determine the reliability, the questionnaire was conducted on a pilot basis on a sample of 30 people and then reliability was calculated by method of Cronbach's alpha (0.782).

The two methods of descriptive statistics, mean, standard deviation is used to analyze the data and information obtained and Pearson correlation coefficient and multiple regression analysis were used to test the research hypotheses.

### 3. Findings

To review research questions was used correlation and multiple regressions with simultaneous method.

Regression is a statistical method that this allows us to predict score one person at a variable based on her/his scores on the other variable or several other variables in a correlated way. If value of correlation be better as result scores is closer to the regression line and therefore prediction is more accurate.

### 4. Data Analysis

Descriptive statistical characteristics of the studied variables are presented in table 1.

Table 1. Descriptive statistics of variables studied in this study (n=199)

Variables	Mean	Standard deviation
Academic achievement	16.563	1.578
Friction	9.085	2.552
Cohesion	10.618	2.205
discipline	10,60	1.585
Competition	10.794	1.859

As seen in the above table, mean of academic achievement 16.563 with standard deviation 1.578 and among independent variables the highest mean is related to effectiveness of the competition variable with value of 10.794 with standard deviation 1.859 and the lowest mean are related to friction with value of 9.085 with standard deviation 2.552. To test the research questions consider results of correlation coefficient and each of them will be investigated.

Table 2: The correlation coefficients between the variables of academic achievement and predictive variables

Variable	1	2	3	4
Academic achievement	**0.173	**0.339	**0.210	**0.253
1- Friction	-	**0.296	0.026	**0.166
2- Cohesion	-	-	**0.331	**0.263
3- Discipline	-	-	-	**0.280
4- Competition	-	-	-	-

P ★ < 0.05 , P ★★ < 0.01

To determine the best predictor of academic achievement between predictor variables is used regression model with simultaneous method and partial correlation that results obtained are presented in table 3.

Table 3: multiple correlation coefficient and squared multiple correlation of variables friction, cohesion, discipline, competition in predicting academic achievement

criteria variable	predictive variables	multiple correlation coefficient	Squared Multiple Correlation	Adjusted Squared Multiple Correlation	F(4,145)	Sig
Academic achievement	Friction Cohesion Discipline Competition	0.392 <sup>a</sup>	0.154	0.137	8.828	0.000

According to the above table the relationship between friction, cohesion, discipline, competition with academic achievement is significant ( $p=0.000$ ,  $F_{(4, 194)} = 8.828$ ). Thus linear combination of linear values significantly associated with academic achievement. Samples multiple correlation coefficient equal to 0.392 that shows an almost 16 percent of the variance in academic achievement in sample is explained with a linear combination of values ( $R^2 = 0.154$ ).

Therefore, it was concluded that independent variables friction, cohesion, discipline, competition have predictive power criterion variables. So regression equation is generalized to the entire statistical population.

The results obtained to determine the coefficients of regression analysis and to determine significant predictor for independent variables and the regression equation set is presented in table 4.

Table 4: standard and nonstandard regression analysis coefficients for the prediction of average

criteria variable	Statistical indicators predictive variables	Nonstandard coefficient	standard error	standard coefficients beta	t	sig
	<b>Constant</b>	12.807	.998	-	12.831	.000
Academic achievement	Friction	-.048	.043	-.077	-1.094	.275
	Cohesion	.177	.053	.248	3.324	.001
	Discipline	.087	.072	.088	1.207	.229
	Competition	.128	.060	.151	2.134	.034

According to the results presented in above table and significant F in the table of variance analysis (4) and t in above table, regression equation with all two predictive of cohesion and competition significantly related to academic achievement. Due to the slope coefficients (column B) regression equation will be as follows.

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + \dots$$

So by replacing the coefficients in the above formula, the equation predicting academic achievement from variable components values of expectation of classroom environment can be obtained as follows.

$$\text{Predicting academic achievement} = 12.807 - 0.048 (\text{Friction}) + 0.177 (\text{Cohesion}) + 0.087 (\text{Discipline}) + 0.128 (\text{Competition})$$

According to the amount of slope, whatever values of expectation of classroom environment component be more, thus predict smaller value for academic achievement.

Indicators presented in Table 5 shows the relative ability of each predictor.

Table 5: bivariate correlation and partial of predictors with academic achievement

variable	bivariate correlation	partial correlation
Friction	-.173	-.078
Cohesion	.339**	.232**
Discipline	.210	.086
Competition	.253*	.151*

Dual Variable correlation: correlation in predictor and academic achievement

Partial correlation: correlation in predictor and academic achievement by controlling for other predictors

P\*\*<.01, p\*<.05

As can be seen in the bivariate correlation between levels of academic achievement and two indicators is significant (p<0.5). Partial correlation between the values of cohesion, competition and academic achievement is significant. According to the correlation analysis, the result can be that useful predictor among values of cohesion 6% (R<sup>2</sup>) and competition 3 percent (R<sup>2</sup>) from changes predict academic achievement, while the share of other variables is only 5% (9% -16%).

## 5. Discussion

Below any of the research hypotheses is analyzed respectively.

1. The main hypothesis which states: There is relationship between expectation of classroom environment and academic achievement of students. Research findings concluded that: the correlation coefficient calculated is significant at level of  $P < 0.01$  ( $p=0.000$ ,  $r=0.392$ ) and shows that there is positive and significant relationship between the expected class and academic achievement.

The results of the present study is consistent with research results of Ghadiri (2011), Hejazi (2011), Kizlegnez (2009), Sanjer (2009), Hijing (2002), Vetli(2006), Renjer (2009), Kano (2005) and Sounger (2012). Results of these researches show that whatever favorable climate be dominant in class, thus student's achievement is greater. Participation of students in class, the intimate relationship between the teacher and students in the classroom and enjoy from teacher support in times of trouble, intimate relationship the students together, establish rules and discipline in class, organizing educational materials in class, paying attention to the effort and do homework students, provide interesting content and encouraging increase student achievement.

2. The first hypothesis which states: there is relationship between friction and academic achievement.

Research findings concluded that: The correlation coefficient calculated is significant at level of  $P < 0.01$  ( $p=0.007$ ,  $r= -0.173$ ) and shows that there is negative and significant relationship between friction and academic achievement.

The results of the present study is consistent with research results of Hejazi (2011), Hijing (2002) and Renjer (2009) and results of these researches show that friction increases be causes resistance of students against teachers, lack of friendship between the students in the class, sadness and depression, absenteeism, lack of satisfaction and interest in studying and learning and as a result decrease academic achievement.

2. The second hypothesis which states: There is relationship between cohesion and academic achievement. Research findings concluded that: the correlation coefficient calculated is significant at level of  $P < 0.01$  ( $p=0.000$ ,  $r=0.339$ ) and shows that there is positive and significant relationship between cohesion and academic achievement.

The results of the present study is consistent with research results of Ghadiri (2011), Hejazi (2011), Kizlegnez (2009) and Sounger (2009) and results show that increasing cohesion be caused favorable climate, increasing positive and purposeful relationships between teachers and students, teacher support in times of trouble, fostering friendly relations in class, increase the participation of students, enhance the sense of self-esteem in students, and finally efficiency and academic achievement.

4. The third hypothesis which states: there is relationship between discipline and academic achievement. research findings concluded that: The correlation coefficient calculated is significant at level of  $P < 0.01$  ( $p=0.001$ ,  $r=0.210$ ) and shows that there is positive and significant relationship between discipline and academic achievement.

The results of the present study are consistent with research results of Hejazi (2011), Vetli (2006) and show that create discipline and harmony is necessary condition for effective training. By monitoring the social behavior of students are reinforced appropriate behaviors of students and their inappropriate behavior that requires its own treatment practices, reduced and this provides the context for teaching and learning targeted of students.

5. The fourth hypothesis which states: there is relationship between competition and academic achievement.

Research findings concluded that: The correlation coefficient calculated is significant at level of  $P < 0.01$  ( $p=0.000$ ,  $r=0.253$ ) and shows that there is positive and significant relationship between competition and academic achievement.

The results of the present study are consistent with research results of Ghadiri (2011), Kizlegnez (2009), Renjer (2009) and Sounger and show that whatever students with a surface approach deal with learning assignments and reduce competition between them, thus will reduced their academic achievement, while deep approach will increased intrinsic motivation, academic achievement and more competitive.

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