

## Academic Performance as a Function of Perceived School Environment

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This paper is designed to study the effect of students' perception of school environment and its various dimensions on their academic performance. The study was conducted on 400 high school students from Aligarh District. A Likert-type scale that consisted of three 30 items, was used to measure students' perception about their school environment, while academic performance was measured using student's marks obtained in previous classes. The results revealed that 'teacher caring attitude for students', 'home work', 'students' attitude towards school' and 'total school environment' have significant predictive influence on academic performance.

**Keywords:** Achievement, Academic achievement, School environment, Student perception

Academic achievement has assumed a great importance in the present educational system. Increasing competition among students regards to academic achievement has been an immense concern of teachers, academic institutions, psychologists, other behavioral scientists, etc. School and academic outcomes are current topics of not merely research in education, or psychology but also in mass media, where issues such as quality of schooling and the importance of children's excellent academic performance are emphasized. It is generally assumed that the effectiveness of any education system to a large extent depends upon the involvement of students to achieve whatever it is to be in the cognitive or psycho-motor domain. Academic achievement of pupils has been a matter of concern for long and its prediction has assumed enormous importance in view of its practical values, as it helps in declaring examinees as successful or unsuccessful, making successful choices of subject/discipline and selecting candidates for different jobs etc. Academic knowledge also gets people ahead in a competitive world, thus, prents, teachers, social scientists have

been very much interested to identify the factors which help in improving student's academic performance. On the point of academic performance or excellence, Tuckman (1975) posited that, performance is used to label the observable manifestation of knowledge, skills, concepts, and understanding ideas. Thereby, performance is the application of a learning product that at the end of the process provides mastery. Before discussing academic achievement, it is pertinent here to discuss about achievement.

Academic achievement means, the achievement of a student made in school or college or university namely, his/her marks in the examination which is the criterion for the performance of the students. It has been defined differently by different experts, Good (1976) defines academic achievement as "the knowledge attained or skills developed in the school subjects, usually designed by test scores or marks assigned by teachers or both". Whereas Howes (1982) described it as "successful accomplishment or performance in particular subjects, areas or courses, usually by reason of skills, hard work

and interest; typically summarized in various types of grades, marks, scores or descriptive commentary”.

It is observed that there are numerous factors that influence the academic performance. In education and psychology a lots of studies have been conducted to find out the first-rate predictors either psychological or social or both, of high-quality and excellent academic performance (Aluja & Blanch, 2004; Gooden, Nowlin, Frank, & Richard, 2006; Howes et al., 2008; Schwartz Gorman, Duong, & Nakamoto, 2008). The direct relationship between intelligence and academic achievement has also been widely studied (Ediseth, 2002; Parker et al., 2004). In addition, several researchers have investigated the relationship between intelligence, gender and academic achievement (Fraine, Damme, & Onghena, 2007; Habibollah, Abdullah, & Tengku, 2008). The baffling facts, which have come into limelight, are that in spite of having similar educational facilities, aspiration and even intelligence, academic achievement of students differ from one another. Hence, here, it is tried to find out the influence of student's perception school environment on their academic outcomes.

School environment has been identified as a key element in effective schools that have strong implications for student's cognitive and social growth, as well as academic performance. A school is one of the most important formal agencies of education and plays a major role in molding the ideas, habit and attitudes of the children. Education acquired by children in school help them to develop well balanced personalities, physically strong, mentally alert, emotionally stable, culturally sound and socially efficient personnel. School is also considered an imperative developmental environment for children, which have a significant impact on children's psycho-social development (Rutter, Maughan, Mortimore, Ouston, & Smith, 1979; Ouston, Maughan, & Mortimore, 1980) and

mental health (Kasen, Johnson, & Cohen, 1990). The above manifold activities of the school can only be possible if the general atmospheres of the school are conducive, encouraging and healthy.

Fisher, Docker, and Fraser (1986) described the history of school climate research beginning with Pace and Stern's College Characteristics Index (CCI) which was used to study student and staff perceptions of the environments of colleges and universities in the 1950s. School climate refers to the quality and character of school life. It is a relatively enduring character of a school that is experienced by its participants, that affects their actions, behavior and attitude in the school. Tagiuri's (1968) categorized the environmental quality of an organization in four dimensions: ecology, milieu, social system, and culture. When this categorization applied to schools, the ecological dimension would refer to the physical and material aspects, such as the school building, school library and playground etc. The milieu would be the average characteristics of the individuals in school; such as teachers' morale, staff stability, and students' background. The social system described the formal and informal structures or rules that direct individuals and groups' interactions in school. They include principal-teacher communication, participation of staff and students in decision making, and teacher-student relationships. Finally, the cultural dimension is concerned with values and belief systems, such as student peer norms, expectation for success, and discipline or behavior management in school. The interactions between the various members of the environment and students along with the facilities available (viz. Library, laboratory, teachers) determine the academic achievement of the students as well as their personality growth (Wilson & Wilson, 1969). Previous researches indicate that school environment influences student cognitive and affective outcomes (Brookover et al. 1978),

students' values (Vyskocil & Goens 1979) and students' personal growth and satisfaction (Bailey 1979). While the investigation of school-level environment has not been as abundant in recent times, papers by Vail (2005), Wood, Lawrenz, Huffman, and Schultz (2006), Loukas and Murphy (2007) attest to the continued importance attached to school environment.

According to Alexandra Loukas (2007) school environments vary greatly where some schools feel friendly, inviting, and supportive; others are felt exclusionary, unwelcoming, and even unsafe. Although it is difficult to concur with a concise definition for school climate, most researchers agree that it is a multidimensional construct that includes physical, social, and academic dimensions. The physical dimension includes: appearance of the school building and its classrooms, school size and ratio of students to teachers in the classroom, availability of resources, safety and comfort intended for students. The social dimension contains: quality of interpersonal relationships between and among students, teachers, and staff, equitable and fair treatment of students by teachers and staff; degree of competition and social comparison between students; and degree to which students, teachers, and staff contribute to decision-making at the school. Lastly, the academic dimension includes: quality of instruction; teacher expectations for student achievement; and monitoring student progress and punctually reporting results to students and parents.

It is important to note that the climate of a school is not necessarily experienced in the same way by all of its members. Rather, there is variability in individual perceptions of a school's climate, and researchers proposed that it is the subjective perception of the environment that influences individual student outcomes. Such as -who are aggressive may perceive their school climate more negatively than those who are not. Because of the

importance of individual perceptions, schools often assess how students feel about their school. There is increasing evidence that the achievement goal structures that students perceive both in the classroom and in the school as a whole are related to their self-perceptions, use of effective learning strategies, effort, and determination (Maehr & Fyans, 1989; Midgley & Urdan, 1995). As well as the interpersonal aspects of school environment as perceptions of positive teacher-student relationships and feelings of school belongingness both are related to positive academic motivation and achievement (Goodenow, 1993; Moos, 1979).

Consequently, it is easy to say that, the environment in which people work and learn has a tremendous effect on how successful and productive they are. The school environment or school climate has an effect on the adults who work there, and therefore indirectly influence the academic success of the students as well. Each school has its own culture that shapes the climate of the building and sends a strong message to teachers and students about what is important in that environment (Wilens, Ishler, Hutchison & Kindsvatter, 2000). During the last decades the climate in schools and classrooms has been an important focus of investigation. A good school climate has been found to predict not only superior academic achievement but also positive behaviour and high self-esteem (Rutter et al., 1979; Ouston et al., 1980; Hoge, Smit, & Hanson, 1990). As data concerning the relationship between the perceived school climate and academic performance are relatively scarce, therefore it has become important to investigate this relationship.

**Objective:**

To find out the influence of perceived school environment and its various dimensions on students' academic performance.

### Hypotheses:

H<sub>0</sub>1: There will be no significant influence of total school environment on students' academic achievement.

H<sub>0</sub>2: There will be no significant influence of attitude towards teacher on students' academic achievement.

H<sub>0</sub>3: There will be no significant influence of attitude towards administration on students' academic achievement.

H<sub>0</sub>4: There will be no significant influence of teacher caring attitude for students on students' academic achievement.

H<sub>0</sub>5: There will be no significant influence of attitude towards classmates on students' academic achievement.

H<sub>0</sub>6: There will be no significant influence of extracurricular activities on students' academic achievement.

H<sub>0</sub>7: There will be no significant influence of teacher-taught relationship on students' academic achievement.

H<sub>0</sub>8: There will be no significant influence of home-work on students' academic achievement.

H<sub>0</sub>9: There will be no significant influence of student's attitude towards school on their academic achievement.

### Method

#### Sample:

A sample of 400 students (mean age=15 years) were selected from public schools of Aligarh district. The students of 10th standard were taken for the study.

#### Tool:

*School Environment Scale* (SES), developed by Fatima (2002). It consisting of 30-item scale, based on 8-dimensions. The 8 dimensions of the scale are: Attitude towards teacher, attitude towards administration, teacher caring attitude for students, attitude towards classmates, extracurricular activities, teacher-taught

relationship, home-work, student's attitude towards school. Responses were measured on Likert type 5 point scale. The higher the scores shows more positive school environment. The split-half reliability of scale was .655 (corrected) and cronbach's alpha was .821.

### Results and Discussion

Table 1 is showing the impact of IVs i.e., school environment and its 8 dimensions on DV i.e., academic performance. Out of these 9 factors only 4 emerged as predictors namely 'teacher caring attitude for students', 'home work', 'students' attitude towards school', and 'total school environment'. Table 1 is showing the model summary indicating 4 predictors of the academic performance. Multiple correlation (R) is found .248 for first predictor, .285 for second predictor, .299 for third predictor and .318 for fourth one. R square is the contribution of predictor variable to the criterion variable by adding the value of previous one gradually. R square change is the actual contribution of the predictor variable to the criterion variable separately. Hence, the real co-variance, the magnitude of independent variables (i.e., teacher caring attitude for students, home work, students attitude towards school, and total school environment), which contributed to the academic performance (DV) came out as 6.1%, 2.0% , .8% and 1.1% respectively.

As the table 2 has shown F value =28.93, 19.5, 14.47 and 12.36 are significant at .01 level. Extending the analysis it is found that stepwise multiple regression analysis successfully identified the significant elements of IVs viz. 'teacher caring attitude for students', 'home work', 'students attitude towards school', and 'total school environment' have significant predictive influence on academic performance as their corresponding statistical t values are t=4.993, t=2.623, and t=3.110 are significant at .01 level and t=2.366 is significant at .05 level. Hence, their related null hypotheses H<sub>0</sub>1, H<sub>0</sub>4, H<sub>0</sub>8, H<sub>0</sub>9 stand rejected.

**Table 1 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.248(a)	.061	.059	10.98623	.061	28.934	.000
2	.285(b)	.081	.077	10.88189	.020	9.536	.002
3	.299(c)	.090	.083	10.84388	.008	4.104	.043
4	.318(d)	.101	.093	10.78776	.011	5.600	.018

a Predictors: (Constant), teacher caring attitude for students

b Predictors: (Constant), teacher caring attitude for students, home work

c Predictors: (Constant), teacher caring attitude for students, home work, students attitude towards school

d Predictors: (Constant), teacher caring attitude for students, home work, students attitude towards school, total school environment

**Table 2 ANOVA and Coefficients**

Model	F	Sig.	Standardized Coefficient Beta	t	Sig.
(Constant)				14.202	.000
1 teacher caring attitude for students	28.934	.000(a)	.360	4.993	.000
2 home work	19.514	.000(b)	.125	2.623	.009
3 students attitude towards school	14.469	.000(c)	.218	3.110	.002
4 total school environment	12.365	.000(d)	.232	2.366	.018

Predictors: (Constant), teacher caring attitude for students, home work, students' attitude towards school, total school environment. Dependent Variable: Academic Performance

Obtained findings revealed the fact that teacher caring attitude for students, home work, students' attitude towards school, and total school environment are significant ingredients contributing to students' academic performance. Teacher caring attitude for students-a facet of SE, shows that students experience positive feeling toward school when they feel caring, loving and supportive attitude of teachers toward themselves that "pushed" them to learn and lead better academic performance. Researchers have proved, positive school climate is directly related to academic achievement (Brookover and Lawrence, 1979; Stephen Sherblom, Marshall and Sherblom, 2006). Furthermore, perceptions of positive teacher-student relationship and feelings of school belongingness related to positive academic motivation and achievement (Goodenow, 1993; Midgley et al., 1989; Moos, 1979) which are consistent with present findings.

Subsequently, home work- next most important predictor also has its positive impact on academic performance which helps student in revising those things which are taught in school. Home work carried a positive relationship with learning outcomes when it is relevant to learning objectives, assigned regularly in reasonable amounts, well explained, motivational and collected and reviewed during class time and used as an occasion for feedback to students. Walberg & Paschal (1994) also accounted that, one of the most widely discussed predictors of learning and academic achievement is homework. As for as students' attitude towards school- a facet of SE, is concerned, indicates the extent to which students have favorable attitude to school help in enhancing students affection towards school and academic performance. As Stockard and Mayberry (1992) also found in their study, the quality of a physical environment of school is related to better attitudes toward school

which may eventually relate to higher academic achievement. Finally, overall school environment has also emerged as an important predictor influencing academic performance indicates that a school with positive environment has effective strategies to support student learning at all levels that direct and indirect influences on students' academic performance. As Brophy (1998) advocated, creating a school environment in which students and teachers feel comfortable, valued, and secure, encourages school members to form positive emotional bonds with others and a positive attitude toward school, which in turn facilitates students' motivation to learn and success in learning.

### Conclusion

The overall findings of study lead to conclude that there are association exists between the different aspects of the school, based on students' perceptions, and their academic performance. Schools are important social systems and positive school climate is important for children's overall development. Thus, it is appeared that when the institutional environment is more 'orderly', students' school culture is stronger or teacher-student relationships are better in quality, lead higher level of achievement.

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