

School Environmental Effects on Academic Achievement in English Subject at Secondary Level in District Rawalpindi, Pakistan

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Abstract

Objective: To find out the effects of school environment on academic achievement in English subject at secondary level in Pakistan. **Methodology:** Sample comprised of 448 respondents which include 28 school heads, 140 teachers teaching English to secondary classes and 240 students of 10th class of Rawalpindi district. Three types of questionnaire, one for each respondent were developed and validated before actual data collection. For measuring students' achievement, a test in the subject of English was administered. Data were analyzed in the form of percentages, averages and Pearson's Correlation Method. **Findings:** It was found that most of the school buildings were not properly equipped with necessary physical facilities. Audio visual aids were not properly utilized in all the sample schools. It was concluded that there was no relationship between the school environment and students' achievement in English subject at secondary level. **Improvements:** The better physical environment may be provided to the secondary level educational institutions. Discipline may properly be maintained in the secondary schools.

Keywords: Academic Achievement, Pearson Correlation, Physical Facilities, School Environment, Secondary Level, Test

1. Introduction

In¹ proposed Education is a "powerful catalyst which provides mental, physical, ideological and moral training to individuals, so as to enable them to have full consciousness of their purpose in life and equip them to achieve that purpose. It is an instrument for the spiritual development as well as the material fulfillment of human needs. In context to Islamic perceptions, education developed the attitude of individuals in accordance with the values

of righteousness to build a sound Islamic society". The literature related to school atmosphere, describe various parameters which may enhance the school environment conditions, including effective principal leadership, a safe and orderly setting, conduction of extra co-curricular activities, reduction in the classroom size and well prepared school educational programmes. These factors fulfill the unique needs of students and school. School environment is considered as palpable as the weather. Some schools have warm, friendly ambience, while oth-

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ers have a cold, foreboding environment that permeates classrooms and offices. To provide a warm and conducive school environment, school administration and support services in remote areas must be especially sensitive to the needs of the students with responsibilities or problems outside school². In³ proposed Secondary education is an important pillar of the education system. It provides middle level workers economic status and acts as a foundation for the higher levels of education. The standard quality of higher education motivates the highly qualified energetic professionals to do better work in the fields of social, economic and political life of the country. Actually all these phenomena based on the quality of secondary education. So it is the need of time that secondary level of education have to be organized in a systematic way because it polished and promoted the individuals for the pursuit of higher education and flourished them to sustain their practical lives meaningfully and productively.

The education and school physical facilities go side by side. We cannot receive proper standard education without provision of these facilities. The physical facilities of the schools played a key role in promoting effective teaching and learning process especially in secondary level schools. The secondary level education is presented as critical phase for the further learning's. The aims of secondary education are to produce healthy, critical and dynamic abilities of the students. Therefore, it is necessary to provide all sort of physical facilities to secondary level schools. The absence of these facilities may give so many defects in the mental and physical processes of the students. Moreover, the presences of these facilities motivate both the teachers and the teaching phenomena. It works like an energizer and speeds up the whole process of learning. Unluckily, most of our secondary schools are recessive in physical facilities which in turn badly affected the entire structure of education. So, the physical facilities should be provided on priority basis⁴. The present system of education in Pakistan is a legacy inherited from the east, although continuous endeavours effort have been made since independence to reform and renovate the education system. The Government of Pakistan

made conscious efforts to modernize the education system with updated curriculum⁵. Secondary education starts from adolescence stage, provides better pathway for the policy makers and academicians to launch different new programmes that motivate the students for promoting positive sweet behavior and attitudes, which ultimately lead to pass fruitful and peaceful life in future⁶. After secondary education, many students stop their education due to financial problem and helped the parents in earning money to fulfill their home based needs. Some were taking admission in higher education. So, the state emphasized on secondary education⁷.

In⁸ proposed environment is the totality of all natural and social factors, actions, phenomena and occurrences that directly or indirectly affect the students' achievement. The environmental studies are multi-disciplinary in nature and comprise the contents, methodology of science and social studies. It helps the child to place himself and understand his role in natural and social environment in which he lives throughout the development of basic social and scientific skills. It provides an opportunity to the children to observe and interact with the environment and thus acquires various competencies, skills and ideas aiming at effective and sound learning. School is a place which provides formal education.

The school shaped the personality of the students and promotes ethical values and culture to the society. The school should have a conducive environment for accomplishing objectives of education⁹. The school environment is that environment which provides ease to both the teachers and the students to make the whole process effective as for as teaching and learning is concerned¹⁰. In other words we have to provide all necessary fundamental physical academic facilities to schools. Such type of environment will work like an energizer and speed up the whole process of education and can play an important role for personality development of children. In¹¹ proposed school environment is "the aggregate of all external conditions and factors influencing the life and nurturing of students". It covers and surrounds all activities that managed, organized and established in the schools. It shows that attractive motivated learning environment had

positive impact on students' achievement. School environment is defined as "sum of all physical, social, emotional, mental, organizational and instructional parameters that attributes to the overall teaching learning phenomena¹² within the school building which positively effects on the quality of education, students teachers relations and enhancing the achievement of students". Environmental awareness¹³ is compulsory point for the welfare of human beings which face the challenges of future.

The future of a nation lies in the hands of future generation. To train, educate and prepare the younger generation for the future is the responsibility of the state¹⁴. To develop a balanced personality among the children is the main aim of the education. Therefore, school heads and the teachers should have a vast knowledge of personality development of the students. They should also know about various school environmental factors responsible for improving the students' achievement. Among other factors, environment and hereditary are very important factors which play vital role in this regards. It is the responsibility of the school heads and the teachers to provide conducive school environment for learning and personality development of the students.

Students' academic performance is enhanced by positive student teacher relationship, academic support facilities, effective management and evaluation strategies¹⁵. The environment of institution comprised of provision of physical facilities as well as utilization of these facilities. The academic support facilities facilitate the teaching and learning process. These physical facilities are also called basic facilities present in every institution. These facilities includes standard building, wash rooms, audio visual aids, play ground, transport facility, water electric pump, library, science laboratory and information technology laboratory. These basic facilities promote the effective learning at secondary level.

The conducive environment for learning is much attached with academic physical facilities. Among other subjects at secondary level, English holds a pivotal position. It is also observed that in Pakistan country, many students fail in English subject at secondary level.

Furthermore, the researcher is working as an English teacher at secondary level, so the researcher decided to see the environmental effects on students' outcomes especially in relation to English subject at secondary level.

1.1 Statement of the problem

In a country like Pakistan, the educational institutions at secondary level do not have enough physical facilities. At the same time there are privately managed institutions, which are very well equipped with facilities. Because of these facilities, wellbeing parents prefer to send their children in the private institutions. So, the researcher decided to study whether these facilities have any relation with the students' achievement.

1.2 Objectives of the study

The study comprised the following main objectives:

- To identify the school environmental factors affecting the achievement of students in English subject at secondary level.
- To measure the students' achievement in English subject at secondary level.
- To find out relationship between school environment and the achievement of students in English subject at secondary level.

1.3 Significance of the Study

The study is significant as its findings and conclusions would help:

- The administrators to make necessary arrangements for provision of basic educational facilities as per requirement of the educational institutions.
- The planners to keep in view the basic needs of educational facilities to be provided in the secondary schools.

- The teachers by motivating them for use of instructional facilities for better results.
- The students are encouraged to make the best use of available facilities.
- The researchers to plan and conduct further research in this particular area.

1.4 Hypothesis

The hypothesis of the study was:

There is no significant relationship between school environment and students' achievement in English subject at secondary level.

1.5 Delimitations of the Study

The study was subjected to the following delimitations:

- It was delimited to all the seven tehsils including urban and rural areas of Rawalpindi district.
- The study was delimited to public secondary schools of Rawalpindi district.
- The study was delimited to only English subject at secondary level.
- The study was delimited to physical facilities.

2. Method of the Study

The design of the study was descriptive in nature and survey was made. It consisted of collecting, analyzing and interpretation of the data in terms of percentages, averages and Pearson correlation method. The researcher personally visited in each school and reported to the school heads and briefed about the purpose of the visit. After briefing process, questionnaires were distributed to the heads and teachers teaching English to 10th classes. However, to determine the effectiveness of school environment on students' achievement, a test of English language was arranged for 10th class students with the help

of teachers. Ten students of 10th class from each school participated in the test. Thus, data about school environment and students' achievement was collected.

2.1 Population

Pakistan is divided into four provinces but the study was delimited to Punjab province, as it has both urban and rural characteristics of population. Out of 36 districts of Punjab Province, district Rawalpindi was selected randomly for the purpose of study. Furthermore, district Rawalpindi has total 7 tehsils which have urban and rural population representing the total population of the country. The total number of Government Boys Secondary Schools in these tehsils were 157 (49, 09, 41, 16, 11, 13 and 18) respectively. All these educational institutions were taken as population of the study. The population comprised of all government boys secondary schools of district Rawalpindi. It included school heads, teachers teaching English to secondary classes and students studying in 10th class.

2.2 Sample

Keeping the constraints in view and resources available, out of 157 Government Boys Secondary Schools from seven tehsils of district Rawalpindi, 4 schools from each tehsil (2 urban and 2 rural) were included randomly for the study. All heads of these schools, 5 English teachers from each school teaching to secondary classes and 10 students of 10th class from each school were taken as sample. Five teachers from each school were included in the study due to reason that minimum strength of English teachers teaching to secondary classes in some of the schools was five. On the other hand 10 students from each school were included in the study due to the reason that maximum strength of students of 10th class in some of the sample schools was 10. The sample consisted of 28 school heads, 140 teachers teaching English to secondary classes and 280 students of 10th class in sample schools of district Rawalpindi. Thus, the total sample of the study was consisted of 448. Table 1 shows area wise distribution of sample and responses received. The returning rate of questionnaire was 100%.

Table 1. Area wise distribution of sample and responses received

Sr. No	Respondents	Sample distribution			Responses received		
		Urban	Rural	Total	Urban	Rural	Total
1.	Heads	14	14	28	14	14	28
2.	Teachers	70	70	140	70	70	140
3.	Students	140	140	280	140	140	280
Total		224	224	448	224	224	448

2.3 Tools of the Research

Three types of questionnaire i.e. one for school heads, second for teachers teaching English to secondary classes and third for students studying in 10th class were self developed. Furthermore, an achievement test in English subject was developed to measure the performance of students studying in 10th class. The questionnaires and achievement test were validated before administering.

3. Presentation and Analysis of Data

Table 2 shows that 21 (75%) school heads had M.A., 7 (25%) B.A., 18 (64%) M.Ed and 10 (36%) B.Ed. qualification. The table also illustrates that 98 (70%) teachers had M.A., 42 (30%) B.A., 36 (26%) M.Ed and 104 (74%) B.Ed qualification. The collected data through research instruments were organized, tabulated, analyzed and presented

carefully in the form of percentages, averages and Pearson's Correlation Method. The environment of a school was calculated such that each physical facility available (yes) in the respective school was given weightage by awarding +1 mark, whereas non availability of each physical facility in the same school was determined by awarding zero (0) mark. Then overall average responses of school head, 5 teachers teaching English to secondary classes and 10 students of 10th class in each respective sample school was calculated. Also an overall average achievement of 10 students from each school was calculated in the form of percentages.

At the end, an average overall school environment of each school was compared to an average overall students' achievement of the same school. Furthermore, relationship between school environment and students' achievement was calculated by Pearson's Correlation Method.

Table 2. Educational qualification of research participants

Respondents	Academic Qualification			Professional Qualification		
	M.A./M.Sc.	B.A./B.Sc.	Total	M.Ed.	B.Ed.	Total
Heads	21	7	28	18	10	28
Teachers	98	42	140	104	36	140

Table 3. Schools' environment vs. students' achievement

Schools	X	Y	X ²	Y ²	XY
1.	5.30	32	28.09	1024.0	169.60
2.	9.30	43	86.49	1849.0	399.90
3.	7.10	30	50.41	900.0	213.00
4.	5.40	34	29.16	1156.0	183.60
5.	8.00	30	64.00	900.0	240.00
6.	5.10	36	26.01	1296.0	183.60
7.	7.20	37	51.84	1369.0	266.40
8.	4.30	43	18.49	1849.0	184.90
9.	5.70	34	32.49	1156.0	193.80
10.	6.70	28	44.89	784.0	187.60
11.	7.10	32	50.41	1024.0	227.20
12.	7.30	33	53.29	1089.0	240.90
13.	7.00	34	49.00	1156.0	238.00
14.	6.80	33	46.24	1089.0	224.40
15.	6.50	34	42.25	1156.0	221.00
16.	6.10	35	37.21	1225.0	213.50
17.	8.50	34	72.25	1156.0	289.00
18.	7.30	37	53.29	1369.0	270.10
19.	8.40	38	70.56	1444.0	319.20
20.	5.90	39	34.81	1521.0	230.10
21.	6.50	35	42.25	1225.0	227.50
22.	8.40	32	70.56	1024.0	268.80

Table 3 Continued

23.	6.30	34	39.69	1156.0	214.20
24.	7.00	35	49.00	1225.0	245.00
25.	6.40	47	40.96	2209.0	300.80
26.	5.80	37	33.64	1369.0	214.60
27.	1.80	39	3.24	1521.0	70.20
28.	3.00	32	9.00	1024.0	96.00
Sum	180.2	987	1229.52	35265.00	6332.90
Pearson's value r					

The formula which is used to find out the relationship between school environment and the students' achievement is as under:

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

Whereas

X = School Environment.

Y = Students' Achievement.

The Pearson's value ($r = -0.105$) shows that there is no relationship between school environment and students' achievement in English subject of all schools of district Rawalpindi as indicated in Table 3. From Table 4, Pearson's value ($r = 0.0512$) indicates near to zero relationship between school environment and students' achievement in English subject of 14 urban schools from all the seven tehsils of district Rawalpindi whereas the Pearson's value

Table 4. Relationship between schools' environment vs. students' achievements in Urban schools (N =14) and Rural schools (N = 14)

Urban Schools	X	Y	X ²	Y ²	XY	Rural Schools	X	Y	X ²	Y ²	XY
1.	5.30	32	28.09	1024.0	169.60	1.	7.10	30	50.41	900.0	213.00
2.	9.30	43	86.49	1849.0	399.90	2.	5.40	34	29.16	1156.0	183.60
3.	8.00	30	64.00	900.0	240.00	3.	7.20	37	51.84	1369.0	266.40
4.	5.10	36	26.01	1296.0	183.60	4.	4.30	43	18.49	1849.0	184.90

Table 4 Continued

5.	5.70	34	32.49	1156.0	193.80	5.	7.10	32	50.41	1024.0	227.20
6.	6.70	28	44.89	784.0	187.60	6.	7.30	33	53.29	1089.0	240.90
7.	7.00	34	49.00	1156.0	238.00	7.	6.50	34	42.25	1156.0	221.00
8.	6.80	33	46.24	1089.0	224.40	8.	6.10	35	37.21	1225.0	213.50
9.	8.50	34	72.25	1156.0	289.00	9.	8.50	38	72.25	1444.0	323.00
10.	7.30	37	53.29	1369.0	270.10	10.	5.90	39	34.81	1521.0	230.10
11.	6.50	35	42.25	1225.0	227.50	11.	6.30	34	39.69	1156.0	214.20
12.	8.40	32	70.56	1024.0	268.80	12.	7.00	35	49.00	1225.0	245.00
13.	6.40	47	40.96	2209.0	300.80	13.	1.80	39	3.24	1521.0	70.20
14.	5.80	37	33.64	1369.0	214.60	14.	3.00	32	9.00	1024.0	96.00
Sum	96.80	492	690.16	17606.0	3407.70	Sum	83.50	495	541.05	17659.0	2929.00
Pearson's value r			0.0512			Pearson's value r			-0.2835		

($r = -0.283$) shows that there is no relationship between the school environment and students achievement in English subject of all rural schools of all tehsils of district.

From Table 5, Pearson's value ($r = -0.105$) shows that there is no relationship between school environment and students' achievement in English subject of all schools of seven tehsils of district Rawalpindi. The Pearson's value ($r = 0.0512$) portrayed that near to zero relationship between school environment and students' achievement

of 14 urban schools and Pearson's value ($r = -0.283$) indicated that there is no relationship between the school environment and students achievement in English subject of all rural schools of all tehsils of district. Table 6 shows that the value ($r = 0.0512$) of urban schools is very near to zero and the value ($r = 0.2835$) of rural schools is very low which indicates that there is no relationship between school environment and students' achievement in English subject at secondary level in district.

Table 5. Combined correlation between schools environment vs. students' achievements

Sr. No	District Rawalpindi	X	Y	X ²	Y ²	XY	r
1	All Schools (N = 28)	180.20	987	1229.52	35265.00	6332.90	-0.105
2	Urban Schools (N = 14)	96.80	492	690.16	17606.0	3407.70	0.0512
3	Rural schools (N = 14)	83.50	495	541.05	17659.0	2929.00	-0.2835

Table 6. Relationship between school environment and students' achievement

School Environment x Students Achievement	Urban schools	Rural schools
	0.0512	-0.2835

4. Results and Discussion

The school physical facilities such as ventilation, plants, play grounds, first aid medical box and LCD/LED significantly contributed about 15.4% towards students' academic achievement. The school environment, discipline and physical facilities of school had positive effect on students' outcomes. The different parameters of school environment such as conducive and peaceful classroom environment, safe and secure school environment, teaching techniques and physical facilities effect on students' academic performance positively. The school physical facilities like electricity, drinking water, audio visual aids, school building and school furniture had positive effect on students' learning.

School environment has positive impact on students' achievement and this effect is more in English medium schools as compared to Urdu medium schools. In the classroom specific environment in Urdu medium schools has better effect on students learning than English medium schools. To improve students' science learning a better school environment is a good contributor. School environment only 4% showed contribution to enhance students' academic performance. The students from school with adequate learning facilities, good teacher students' relationship and favorable learning environment

perform well. So, the research concludes that school environment does influence students' academic performance. All the above mentioned researches showed that school environment effects on overall students' performance but the present research study was conducted only on English subject and concluded that there was no relationship between the school environment and students' achievement in English subject at secondary level. It was found that most of the school buildings were not properly equipped with necessary physical facilities. Audio visual aids were not properly utilized in all the sample schools. The better physical environment may be provided to the secondary level educational institutions. Discipline may properly be maintained in the schools. It was found that most of the school buildings were not properly equipped with necessary physical facilities. Audio visual aids were not properly utilized in all the sample schools. The better physical environment may be provided to the secondary level educational institutions. Discipline may properly be maintained in the schools.

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