



Effects of School Building on Academic Achievement of Secondary School Students in Southern KP, Pakistan

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Vol. V, No. II (Spring 2020)

Pages: 28 – 34

DOI: 10.31703/gesr.2020(V-II).04

Abstract: *Without proper building, the teaching-learning process is incomplete. The importance of school building has been acknowledged as a basic building block of humanity from past till now as teachers and students' stay is mostly in school building during study hours; and there is close relationship between school building and students' academic achievement. In this study, the researcher has also focused on the school building and its effects on the academic achievement of students. The main objective of the study was to know the impact of School building on Secondary School students in Southern districts of Khyber Pakthunkhwa, Pakistan. The study was descriptive. Dichotomous questionnaire was used to collect data from the respondents. Descriptive and inferential statistics were used to attain the desired objective the study. The results of the current study show that there is a significant relationship between students' academic achievement and school building.*

Key Words: School Building, Secondary Schools, Academic Achievement, Southern KP, Pakistan

Introduction

Properly safe and well-ventilated schools should be built for students and staff to maintain a quality teaching-learning environment [1]. All essential facilities and resources like water, lighting, electricity, temperature, cafeteria, dispensary, playgrounds, swimming pool, and other facilities must be available for students and other employees of the school [2]. Well-ventilated classrooms, sufficient lighting, laboratories, entrance door, library, and other physical facilities or resources should be built and functional in the school so that quality education may be ensured and students may easily avail the available resources in the school for their better schooling and learning [3]. The Music Room, the Art Room, the Gymnasium, the Science Room, the Cafeteria, and the Examination Hall must be built in the school with the provision of all facilities in it so that teachers and students may utilize these facilities for their better educational purposes [4]. The Principal Officer, the School grounds, the baseball field, the playground, the assembly hall, and the computer room are highly mandatory to build in the school that are quite helpful in the better academic and teaching-learning process[5]. There should be an auditorium, the boys' room, the girls' room, the bus stop, and the teacher room in the school; the well-facilitated and properly constructed building has a direct impact on the teaching-learning process [6]. Lighting, temperature, color, noise, etc. influence students' health, sense of self-safety, and psychological state as well [7]. Highly qualified and talented teachers mostly avoid outdated and unattractive school buildings where essential facilities and resources are not available because outdated buildings and lack of resources negatively influence the quality of education, teaching-learning process, and students' academic grades [8]. The quality of available Facilities and resources in the school building affect the

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whole educational setup especially teaching-learning process and administrative activities in this modern technological world [9].

School building must be very brightened and decorated with multi-colors, lawns, swimming pool, grounds and other facilities in it so that students' interest towards learning and teachers interest towards teaching may be increased [10]. Natural light and well-ventilated as well as the clean, airy building has a positive impact on students' learning [11]. Planting in school, and plan grounds maintain the normal temperature in the school [12]. School building must be well-planned, spacious, airy, good ventilated classrooms along with proper lights, fans, black/whiteboards, chairs, and benches so that the quality of teaching-learning process may take place and academic improvement may be ensured [13]. The quality of school building either hinders or helps the teaching-learning process because in new, well-designed, and pleasant constructed buildings, students' concentration and attention towards learning increase due to which they attain brilliant academic grades [14]. Students' learning performance is improved with the newly, facilitated school building [15]. School building requires proper desks, network, labs, performance spaces, practice spaces, and the like; these spaces must be sufficiently spacious, safe, and equipped with the right stuff [16]. School building must be equipped with basic facilities and resources like science labs, cafeteria, ICT laboratories, art room, library, examination hall, electricity, water, toilet, common room, guesthouse, playgrounds and other such facilities to utilize for the development and enhancement of the school along with the quality of teachers and students [17].

A well-facilitated school building improves students' outcomes [18]. School building with school plants, classrooms, toilets, and fresh drinking water facilities, libraries, offices, laboratories, and other materials as well as infrastructure are quite helpful to bring betterment in the educational system due to which teachers and students are highly motivated towards the teaching-learning process [19]. School building must be equipped with all educational facilities and resources [20]. Without educational resource, school building is quite meaningless and useless where students will not able to show better academic performance or teachers to show better teaching performance [21].

Research Methodology

The Study Design

It was descriptive study. where the researcher preferred the survy method to collect data.

The Population of the Study

The population constituted all Secondary school students in Southern KP as shown in the table below:

Table 1. The population of the Study

Districts	Respondents	
	Students	Teachers
District Bannu	8081	1290
District Lakki Marwat	9246	1002
District Kohat	9121	1005
District Karak	7591	1163
District D.I.Khan	10182	1557
District Tank	2081	440
Total	46302	6457
Grand Total	52759	

Source: KPK District Educational Management Information System 2015-1

Table 2. Target Population of the Study

Districts	Respondents	
	Students	Teachers
District Bannu	8081	1290

Districts	Respondents	
	Students	Teachers
District Lakki Marwat	9246	1002
Total	17327	2292
Grand Total	19619	

Sample of the Study

The total numbers 12 Public Secondary Schools (06 Boys and 06 Girls Secondary Schools) in District Lakki Marwat and district were taken as samples of the study.

Sampling Technique

The researcher used simple random sampling technique during data collection from the respondents.

Sample Size

The size of sample was (n=700, respondents) selected from 12 Public Secondary School (06 Boys and 06 Girls Secondary Schools) through John Curry (1984) Sample Size formula. :

Table 3. Sample Size of the Study

Districts	Respondents	
	Students	Teachers
District Bannu	8081	1290
District Lakki Marwat	9246	1002
Total	17327	2292
Grand Total		19619

John Curry (1984) Sample Size Formula:

Sample Size	Population
100%	10-100
10%	101-1000
5%	1001- 5000
3%	5001- 10000
1%	10000+

Data Collection Tool

Data was collected from the sampled respondents through a dichotomous questionnaire of options Yes and No carrying values 2 and 1.

Delimitation

The study was delimited to all 10th Class students and teachers at Secondary School level in Bannu and Lakki.

Data Analysis

Data was entered into SPSS for statistical analysis using frequency, percentage, and regression to find out the effects of school building on the academic achievement of students. Frequency and percentage were used regarding clarity of results for even all those people also who have no expertise in the Research field as frequency and percentage statistically facilitate and make easier the results for laymen also to understand it, this concept is highly developed in advanced countries like United State of America,

United Kingdom, Norway, and France, etc. while the effects of school building the academic achievement of students was statistically analyzed through regression.

Pilot Testing

This is also called the practicability study. Pilot testing was used to check the validity of the research instrument via pre-test. In this study, the valid proof of the collected data instruments was cumulated with the help of a pilot study in the initial draft of questionnaire was distributed among experts to validate the research instrument; and the valid questionnaire was administered among the respondents for reliability, while Chronbach Alpha value was ensured to assess the internal consistency of the research instrument which was .893. All those statements i whose items total correlation value was either equal or less than .25were dropped from the questionnaire while the remaining items retained in the questionnaire.

Results of the Study

Table 4. Regression Model Showing Effects of School Building on Academic Achievement of Secondary School Students

Dependent variable		R	R ²	df	F	P	Beta	Sig
Academic achievement	Student respondents	.208 ²	.043	1 498	22.539	.000 ^a	.208	.000
Independent variable	Teacher respondents	.296 ^a	.088	1198	19.082	.000 ^a	.296	.000

Table 4 indicates the impact of School building students' academic achievement at Secondary School level. In column four r² is .043 and multiple r in column 3 is .2082 that describes a correlation between dependent and independent variables. F value in column sixth is 22.539 with significant value of .000 Beta score which is .208 found significance at .000a significance level. It indicates strong significant relation between School building and students' academic achievement. Likewise, table second portion given below shows respondent's views regarding school buildings and its effects on the academic achievement of Secondary school students It analyzes the effects of the school building on the academic achievement of students at Secondary school level. The values of (R₂ =.088, and Multiple R = .296a) that revealed the relationship between the dependent and independent variable. F 19.082 is found sig, at .000 levels. Beta .296 is also founded sig, at .000a level. So it is clear from table 3 that there is a strong significant relationship between students' academic achievement and school building.

Table 5. Responses of the Respondents Regarding Effects of School Building on the Academic Achievement of Secondary School Students

Respondents	Statistics	Scale Used		Total
		Yes	No	
Students	Frequency	362	138	500
	Percentage	71	29	100
Teachers	Frequency	141	59	200
	Percentage	69	31	100

Table 5 shows the responses of the respondents regarding School building and its effects on the academic achievement of students. In the light the respondents' responses in Table 4, it is revealed that out of (n= 700, 100%) respondents including all male and female respondents; the total numbers of (n = 362 i.e. 71% students) show Yes responses regarding the effects of school building on the academic achievement of Secondary school students whereas (n = 138 i.e. 29% teachers) show No responses. Likewise, (n = 141 i.e. 59% teachers) show Yes responses while (n = 69 i.e. 31% teachers) show No responses regarding the

effects of School building on the academic achievement of Secondary school students in Southern KP, Pakistan.

Discussion

The results of the current study reveal that there are high effects of school building on the academic achievement of Secondary school students in Southern KP. It was further clarified from the results of the present study that school building has high effects on the academic achievement of students at Secondary school level in which both students and teachers were of the views that students' academic achievements are highly affected and influenced due to school building both positively and negatively; the students of well-built and up to date schools from schools point of views show better academic achievement as compared to the students studying in poorly constructed and low facilities buildings. According to the previous study by (Lackney & Jeffery. A. 2001) find out the building of the school was of such kind that enclosed overall requirements of students and teachers like a laboratory, library, washrooms, hostels, boundary walls, prayer facilities and so on. (Olutola, 1982) found that well-located school building with the visual condition, playgrounds. Library, well-equipped science laboratory, and other facilities required to students in institutions greatly improve student's academic achievement.

Conclusion

It was concluded by keeping in view the objectives and results of the study that there is close association and inter-dependence between school building and students' academic achievement. The schools having better and satisfactory building, equipped with all facilities for students in the building show better academic achievement rather than old and outdated build institutions that hurt students' learning performance and their academic score as well. The results concluded that school buildings should be given higher and priority in that so that students might avail of their opportunities in the well-built building for their better academic achievement.

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