

THE RELATIONSHIP OF SCHOOL FACILITIES TO STUDENTS' ACHIEVEMENT TESTS AND THEIR IMPACT ON UNIVERSITY ADMISSION

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ABSTRACT

The purpose of this study was to investigation of relationship of school facilities to students' achievement tests and their impact on university admission. In order to obtain data, the investigator ensured that the formats were sent out to each 17 high schools in Abha, Saudi Arabia. The investigator was asked to review and complete the formats they received. The overall average of school facilities as measured by the Council of Educational Facility Planners was 84.46%. There are 5 schools showed scores above 90%. The overall average of students' achievement tests as measured by the Qais was 66.2%. There are 2 schools showed scores above 70%. There is no relationship of school facilities to students' achievement tests. For further information, researcher did some interview with students who are in the first year at university and get highest scores in achievement test. They said, the most reason of achievement test is because get many training of this test, and qualification of the teachers.

Keywords

school facilities- achievement tests- impact- university admission

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Introduction

The main aim of the study was to investigation of relationship of school facilities to students' achievement tests and their impact on university admission. The Council of Educational Facility Planners ([CEFPI], 1998) – Guide for School Facility Appraisal, 1998 Edition, helped in appraising school facilities (Hawkins & Lilley, 1998). The major CEFPI appraisal questionnaire categories included: (1) the school site; (2) structural and mechanical features; (3) plant maintainability; (4) school building safety and security; (5) educational adequacy; and (6) environment for education.

According to Khalid, Nasir and Afreen (2016) public-private partnership affects the teacher's qualification, institution infrastructure, the library, lecture rooms, playgrounds, security, facilities and other fundamentals of quality education. Punjab Education Foundation plays a critical role in infrastructure as the outcomes from the study indicate that it enhances management and policy makers to appropriately identify the challenges and recommend the best solutions. The research

recommends guidelines to promote quality educational inputs. This research will provide feedback to Punjab Education Foundation in framing suitable policies and building sustainable partnerships in order to achieve the goals. The study will also help the schools with poor education outcomes in overcoming the challenges to enhance proper infrastructural development in the facilities.

Hussain (2018) reported that schools with improved students' performance had more capacity of efficient physical facilities, educational resources, high level professional support and commitment of the school leaders. On contrary, schools with poor students' performance records were associated with inhibiting factors. The study further recommended effective solutions in light with the findings to improve the quality of education in primary schools. One of the recommendations is renovating the government school facilities as well as extending such facilities as; teachers staff room or discussion room, bookshelves, availability of science equipment/material that address class 1-5 Science

concepts, supplementary resource materials for teaching science and math.

Riha (2001) examined the student performance index as a function in Texas public middle schools. There is no clarity on impact of school size on the students' performance and achievements. Accordingly, in this study, the academic achievement of Grade 8 White, Hispanic, and Black students, as measured by the Texas state-mandated assessments, was analyzed as a function of middle school size. Therefore, the educational leaders and policy makers should review the performance when examining the impacts of middle school size on performance.

Bowen, Bowen, and Richman (2000) from their study suggested that the negative impacts of school size on student outcomes is attributed to high enrollments on the school environment. Therefore, there is no validity of school social work interventions. The findings from the interactional analyses indicate that various schools may be particularly detrimental for white students and for girls. Even though the evidence indicated improvement in school satisfaction increased for students of color in the largest schools, it simultaneously reduced white students.

Additionally, as school size increased from 800 to 999 students to the largest enrollment category, per captions of teacher support increased for boys but dropped precipitously for girls.

Sabit, Babatunde and Oluwale (2012) carried out research on the impacts of school type on students' academic performance in Ondo State. The study was designed to investigate the relationship between the academic performance in private and public secondary schools. The findings indicate that there is big gap in available facilities in public and private schools in the state. However, there was no significant difference in academic performance in two secondary schools. The study recommended for procurement of additional facilities in public secondary schools to improve academic performance. Besides the school and public libraries, there is need to establish education resource centers by government, for example, the teachers centers and audio-visual centers. As such, the teachers' centers are essential place for teachers to work as a team to share and generate new important ideas

to increase their competency in their profession.

The teachers should also be instructed to utilize instructional facilities in the curriculum and improvise for one whenever it not available. Zepatou, Loizidou, Chaloulakou and Spyrellis (2016) studied the relationship between school facilities and sustainability concepts: a study of Hellenic secondary school principals', teachers', pupils' and parents' responses. They funded existing school facilities, which are mostly rated as good and emphasis on the important of selection and use of materials friendly to the environment and human health. The active groups believe that it is their role to participate in planning/selecting sustainable solutions for the institutions. They established users' subjective opinions which should be considered and integrated into procedures to enhance school buildings, assessing and selecting environmentally friendly materials and implementing strategies for sustainable school design, building and operation. Brahim, Umar and Clement (2017) examined the impact school facilities have on academic achievement of students in Senior Secondary Schools in Bauchi State Nigeria. From the study, there is no significant statistics relationship in school plant and facilities and the academic achievement of students in the index of TLEA at 0.05 levels. The study examined relationship between school facilities and the students' achievement in public senior secondary schools in Bauchi State of Nigeria. There was low relationship between the two factors, and could result from students' poor study pattern and inappropriate imitative of staff. Therefore, the administrators and the curriculum planners should consider the significant factors such as Interior Environment and Academic Learning Space during school planning to initiate positive impact on students' performance, the design and construction should emphasize on Specialized Learning Space and other essential academic sectors more than administrative support to increase teacher satisfaction.

Mcgowen (2007) examined the relationship between school facility conditions and the performance outcomes including academic achievement, discipline, completion rate, and attendance and teacher's turnover. The

recommendations from this study include; administrators and designers to consider factors like interior environment and learning space during school planning to produce positive influence on students' discipline. Also, the school design and construction should emphasize on specialized learning spaces and other essential areas rather than administrative staff space during strive to improved teacher satisfaction through working condition.

Godstime and Joseph (2019) investigated the influences of school environment on the academic performance of students in technical colleges in Rivers State. From the she studies, the high level of school building, technical workshop library facilities, and location of school impacts on the academic performance in technical colleges in Rivers State. Therefore, they suggested that there should be enough and conducive learning environment in public schools to promote effective teaching to improve academic achievement. There should also established technical workshop and library facilities in River State technical colleges.

Hopland and Nyhus (2015) found that the purpose of this research is to explore the relationship between satisfy of a student with school facilities and exam results. This article's Results that the writers found a humble, yet important, relationship between pupils' satisfaction with school buildings facilities and exam consequences. This is rather than prior examinations that using Norwegian information, which show no such a relationship. The researchers contend that the thing that matters is because of how they have more truth information than what were accessible to the prior investigations of Norwegian schools, and that they utilized through measurement of schoolboys' grateful instead of a measurement of buildings status. This paper recommends using new evidence of the relationship between student achievement and school facilities. It should greatly interest researchers, school leaders and policy producer.

Okafor, Maina, Stephen, & Ohambele (2016) said that the buildings or environment where this information is procured is as critical as the learning itself. With the commonness of

secondary schools set up regularly inside private quarters to take into, account the requirements of the Nigerian people. It has turned out to be basic that examination investigates the effect of schools' facilities/environments on academic performance of pupils. This investigation assesses this relationship inside two schools in Sabon Gari Zaria that are First Baptist High School and Top Spring School. The research had reviewed of 232 senior secondary school students just as physical estimations/documentation of both schools was utilized to get the students' perspective on their school building, how it influences them and if their school building was worked for school purposes or not. Meetings were additionally involved to get more data from the students on the topic. The information examined utilizing IBM SPSS® 21 for direct measurements from poll reactions. Study discoveries uncover that performance of pupils would improve with the arrangement of satisfactory and helpful school environment with accentuation on offices, for example, study halls and toilets. It further uncovered that great indoor air quality, great visual solace and adequate space inside and outside learning spaces are factors that influence performance of students among others. The ramifications of these discoveries to originators are that the building typology (be it initially private or institutional) assumes an enormous job in the general academic performance of students in the examination region.

Mudassir, Norsuhaily, & Ado, (2015) found that this study aims to study how the school environment affects the academic performance of students. The main goal of this research is to analyze how school facilities, teachers and the environment greatly affect the academic performance of high school students in Kuala Terengganu, Malaysia. The researcher used descriptive survey research to collect data from 377 respondents using a self-administered questionnaire in four selected secondary schools in Kuala Terengganu. The random sampling technique used for sampling from the participants and data were analyzed using regression analysis. The study explained the result in three forms of demographic information, descriptive analysis and deductive analysis. The study showed that

students from a school with adequate facilities, good teachers and an enabling environment performed well compared to school students with fewer facilities, unqualified teachers and a less favorable environment. The study recommends that teachers should understand and appreciate the diverse local environment of their students.

Parents must instruct to take part with the school authority in educating their children to enable them to understand or not progress. Interested researchers should try to do more research on the factors that affect academic performance in different stages of education.

Ramli and Zain (2018) included on the relationship between three factors that can affect student achievement: system management (e-learning, MIS); learning environment (classrooms, educational aids, library) and infrastructure (Hostels, Parking and transportation). The study runs correlation and regression analysis for data analysis. The results of the study show that e-learning for the management of the system; teaching aids and the learning environment library; the hostel, sports facilities, parking and infrastructure transfer were all important to influence student achievement. All factors contributed about 51.5% to student achievement.

Brooks (2015) included Disclosure of the relationship between the Colorado facility status for primary schools and student achievement. The emphasis of the study was the general condition of facilities. From the study, the Facilities Condition Index as independent variable was an indicator of facility derived from Colorado Statewide Financial Assistance Priority Assessment during the end session of 2009-2010. The results indicated that there is no significant relationship between the school facility conditions and the academic achievements among students.

The International Facilities Management Association (2002) considers management as coordination practice of physical workplace constituting people and work assigned by the organization. Management essentially integrates principles and practices of business administration the behavioral and engineering techniques. Therefore, the management of school facilities involves the application of scientific approaches in planning, organizing, making decisions,

coordination and controlling physical work environment for learning to actualize educational goals and objectives.

The study was providing understanding the influence of school facilities to students' achievement tests on university admission in some countries. Adding a study to investigate this concept in Saudi Arabia provided research regarding a multicultural approach.

Purpose of the Study

The purpose of this study was to investigation of relationship of school facilities to students' achievement tests and their impact on university admission.

Research Questions

1. How do Abha High Schools perceive their school facilities as measured by the Council of Educational Facility Planners?
2. How do Abha High Schools perceive their students' achievement tests as measured by the Qais?
3. What is the relationship of school facilities to students' achievement tests and their impact on university admission?

Data Collection

In order to obtain data, the investigator ensured that the formats were sent out to each 17 high schools in Abha, Saudi Arabia. The investigator was asked to review and complete the formats they received. In order for this to be accomplished:

1. The investigator received students' achievement tests from Qais.
2. The investigator had the postgraduate's students to examine and completed school facilities format.
3. Once the completed format was received the investigator analyzed and compiled the data so that a report of the findings from the data collected could be created.
4. The investigator then reported recommendations.

Data Analysis

Data analysis comprise of the descriptive and inferential statistics. In order to relate the population of the sample of the study to entire population, it was necessary to carry out chi-square goodness of fit test. The results from the test showed that whether the results from the

sample population can be used to make a conclusion about the entire population. Descriptive statistics was majorly used to analyze major research question in this study. For each of 2 questions, the researcher reported the mean response, number. In addition, frequencies and percentages were reported to provide the reader with an overview of participant responses. For the third question, the researcher reported the a statistically significant correlation between the level of school facilities to students' achievement tests and their impact on university admission.

Sample

This format instrument was distributed to all high schools in Abha. There are 17 high schools.

Table 1. The overall average of school facilities as measured by the Council of Educational Facility Planners

No.	High schools' Name	school site	educational adequacy	environment for education	Average
1	Abha First	18.2	36.8	36	91
2	Alnamothajeyyah	18.3	38.25	38.3	94.85
3	Alshikh Bin Othaimeen	18	35.6	35.4	89
4	Haneen	10.95	21.15	17	49.1
5	Saqer Qoraysh	18.4	35.3	35.1	88.8
6	Alandalus	12.3	23	25.6	60.9
7	Alareen	17.8	34.55	34.9	87.25
8	Alfahad	19	37.4	37.4	93.8
9	Dar Aloloom	15.45	23.9	27.95	67.3
10	Balaad Alshohadaa	18.7	36.32	34.65	89.67
11	Alfath	17.8	33.4	33.2	84.4
12	Almoatasm	19.25	37.5	36.2	92.95
13	Alawaeel	19.2	37.15	37.75	94.1
14	Almanahil	18.2	39	37	94.2
15	Abha	18	33.95	35.05	87
16	Rowwad Abhaa	18.35	36.45	33.5	88.3
17	Shorooq Almarefah	18	36.1	29.25	83.35
					84.46

The overall average of school facilities as measured by the Council of Educational Facility Planners was 84.46%. There are 5 schools showed scores above 90%. The highest averages were as follows: Alnamothajeyyah school had 94.85% average. Almanahil school, had a 94.2 % average.

Table 2. The overall average of students' achievement tests as measured by the Qais

No.	High schools' Name	Highest No. of Abha	Highest No. of Assir	Highest No. of Saudi Arabi	Government / Privet	Average
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Discussion of the Questions

1. How do Abha High Schools perceive their school facilities as measured by the Council of Educational Facility Planners?

The researcher found based off the answers given in the completed critics that in Abha High Schools appeared to agree with Council of Educational Facility Planners. All of the questions answered regarding the school facilities showed scores 84.46%. These are appeared to perceive that they set personal examples aimed at creating a standard of excellence for all those around them to follow. Based off the data scores received the investigator found that Abha High Schools appeared to believe that they were able to effectively school facilities.

Alawaeel school had a 94.1% average. Alfahad school had a 92.95% average. Abha First school had 91 % average.

2. How do Abha High Schools perceive their students' achievement tests as measured by the Qais?

1	Abha First	1	1	54	Government	77.02
2	Alnamothajeyyah	2	3	79	Government	75.4
3	Alshikh Bin Othaimen	3	17	270	Government	69.34
4	Haneen	4	20	310	Government	68.77
5	Saqer Qoraysh	5	23	319	Government	68.66
6	Alandalus	6	41	438	Privet	68.73
7	Alareen	7	42	440	Government	66.69
8	Alfahad	8	44	446	Government	66.56
9	Dar Aloloom	9	45	456	Government	66.42
10	Balaad Alshohadaa	10	47	464	Government	66.32
11	Alfath	11	53	554	Government	65.1
12	Almoatasm	12	59	586	Government	64.57
13	Alawaeel	13	67	680	Government	63.52
14	Almanahil	14	80	757	Privet	62.73
15	Abha	15	117	1137	Privet	59.1
16	Rowwad Abhaa	16	135	1262	Government	58.38
17	Shorooq Almarefah	17	139	1293	Privet	57.99
						66.2

The overall average of students' achievement tests as measured by the Qais was 66.2%. There are 2 schools showed scores above 70%. The highest averages were as follows: Abha First school had 77.02 average. Alnamothajeyyah school had 75.4%.

3. What is the relationship of school facilities to students' achievement tests and their impact on university admission?

Table3. relationship of school facilities to students' achievement tests

Pearson Correlation	-0.065
Sig. (2-tailed)	0.804
N	17

There is no relationship of school facilities to students' achievement tests. For further information, researcher did some interview with students who are in the first year at university and get highest scores in achievement test. They said, the most reason of achievement test is because get many training of this test, and qualification of the teachers.

Conclusion

For further information, researcher examined the facilities in this school both inside and outside. There are some standards that serve as an appraisal guide for facilities in the high school. They are as follows: the school site, educational adequacy, and the environment for education. In regard to school site, Abha high Schools received full marks in 5 criterion areas. Schools should have a site that is large enough to meet educational needs as defined by state and local requirements. The school site should also be easily accessible and conveniently located for the present and future population. The location is best if it is removed from undesirable business, industry, traffic areas as well as near any natural hazards. The site also needs to be well landscaped and fully developed to meet all the various educational needs. It is also important that there be sufficient on-site, solid surface parking that provides for the faculty, staff and community. Abha high Schools have full marks in educational adequacy. In schools, the size of academic learning areas should meet the prescribed standards. Personal space in all the classrooms, away from group instruction, should allow privacy time for individual students. Schools should have ample storage for student and teacher materials.

They also should have spaces set aside for art, technology education, and small groups. In the Counselor's office, it needs to be set up so that privacy is insured as well as having and sufficient storage for the Counselor's necessary materials. The Clinic should be near the administrative offices.

Finally, Abha high Schools were awarded full marks in environment for education. Schools should have color schemes, building materials, and décor to provide an impetus pathway that leads to learning. Lighting systems should provide proper intensity, diffusion, and even distribution of illumination. Areas for students to interact must be suitable to the age group being served.

There are some building features that clearly exceed criteria and some that are non-existent or quite inadequate. Schools should aim to properly maintain all of these areas even trying to exceed in them. By doing this faculty, staff, and students can be assured access to good facilities. Schools should continually work on any areas that have non-existent or inadequate facilities so they can improve in all standard areas.

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