

School Environment: A Predictor of Students' Performance at Secondary Level in Pakistan

Shazia Jabeen¹, **Muhammad Siddique², Dr. Kramat Ali Mughal³, Huma Khalid⁴,
Waqas Shoukat⁵

¹Ph. D Scholar, Superior University Lahore, Pakistan Shaziajabeen121980@gmail.com

²Ph. D Scholar, Superior University Lahore, Pakistan siddiqueamar@gmail.com

³Assistant Professor, Institute of Punjabi and Cultural Studies, Oriental College, University of the Punjab, Lahore, Pakistan Karamat.ipcs@pu.edu.pk

⁴M. Phil Scholar IER, university of the Punjab, Lahore, Pakistan khumascholar@gmail.com

⁵Coordinator (M. Phil), Minhaj Univesity, Lahore, Pakistan waqas.srp@mul.edu.pk

Abstract

Pakistani sectors educational institutions offering three educational streams is painstaking subject for secondary school students. Students remain curious during the process of performance of students due to effect of environment. Students move away from understanding due to complications. They show their poor performance towards performance and achievement. Present research was framed to examine the effect of school environment on students' performance as perceived by teachers at secondary level. Ultimate aim of the study was to investigate the effects of environment regarding performance in male and female students enrolled in public schools. The nature of this study was descriptive. 17 male and 17 female public schools were selected as sample school with 340 teachers. Sample were selected on the basis of simple random sampling technique for urban schools and convenient sampling technique for rural schools. An adapted questionnaire was used for data collection. A questionnaire comprised of six factors. Portion A is related to demographic factor including the basic information of the gender, portion B is related to the Teacher Support comprising of five statements, portion C is related to the Peer Interactions comprising of five statements, Portion D is related to the Affiliation comprising of five statements, portions E is related with Student Autonomy Climate comprising of five statements, portion F is related with School Structure comprising of five statements, Portion G is related to School Harshness comprising of five statements. For testing the reliability and validity, first draft was distributed to fifty teachers. On the basis of reliability and validity instrument was revised for the final instrument and tested for reliability. From portion B two items were excluded for the final questionnaire consisted of 30 items. Researcher himself distributed and collected the data from the 340 teachers. Data were inserted in SPSS version 24 for data analysis by applying Mean, Standard Deviation, t-test and regression. Findings show that there was a significant difference between male and female teachers regarding the effect of school environment on students' performance. Result of the research study shows that female teachers possess better environment as compare to male at secondary school level in Lahore district.

Introduction

Environment of any institution is a part and parcel of the clime of that institution. It plays an important in the betterment and improvement of

the institutions. If a student is motivated and satisfactory its mean environment is very healthy. Ethical and moral values; safety and rules; and well-disciplined policies are the key pillars of

school environment. A healthy and effective environment of an educational institution pays constructive impact on the performance of the students. There are numerous ways to initiate and construct the fruitful and effective environment of any educational institutions. The main target of the school environment is to focus and emphasize the individuals in the perspective of growth and development (Rafiq et al., 2013).

According to Suleman et al. (2012) environment of any educational institution possess concise the potential to empower the education of the children. Various psychological and educational experts are disagreed on the factors those affect educational routine of beginners in the issue existing in classes at secondary school level. Some experts say that buildings of the educational institutions are very important for teaching learning purpose. Some educationists narrated that there is close connection among somatic properties and their output in the educational institutions. Intellectual approach of the students and educational environmental grounds affect the learning paradigm of arts specially science subjects. History of education proves that school building plays an important role in the development of the students. The learning paradigm of the students depends upon the so many factors like pedagogical skill of the teachers and so many other social variables. It is very obvious that environmental grounds and environmental conditions sweetly affect the performance of the students at every stage. In other words, we can say that environment of the school has big effect on the academic achievement of the students.

According to Arul Laurence (2012) procedure of educational growth based upon the societal, physical, traditional and emotional factors. Suitable and satisfactory environment is required to fuel up the positive, constructive and fruitful learning. Proper motivation and inspiration will be provided by the educational institutions and home for the learning process.

Children consume much time in educational institutions, so this environment pays the effect on the personality, achievement, performance and attitude of the students by the means of various teaching methodology.

Good teaching and learning situation perform a key role in defining the success of students. Researcher also explained that this environment defines that how students control and handle the objective and tasks of learning. Major effect of the learning environment is that a person changes his behaviors for achieving the learning demands. In this way change in behaviors is termed as learning for specific teaching learning environment. Environment is major behaviors change in teaching and learning process (Tsavga, 2011; Munir et al., 2021). Environment is a compulsory part and parcel of the planning in education. Quality of education does not base upon the teachers but also depend upon the good learning environment, which enhances the effective coordination for teaching learning process. The aptitude of the students cannot measure the academic success of the students (Chuma, 2012).

According to Lizzio et al. (2002) academic success is related with environment of learning. It influences the learning and teaching. Environment conditions affect the student learning approach, capability, learning attitude, cognitive approach, peer relationships, and many other factors that directly or indirectly affect the performance of the students and teachers. A research study was conducted which explain the six teaching- learning steps those are affected by the environment (Kamaruddin et al., 2009).

- Information and update
- Communication and interconnection
- Collaboration and corporation
- Procedure and techniques
- Scaffolding and framework
- Management and achievement

A research study explained practically communication regarding environment of learning is referred to entire variety of elements and actions. In this way productive learning is happened. Environment possess best place to create an intellectual child which perform constructive and positive role in humanity. Home, educational institution, group with class fellows, and good class room are the key part of good environment. Good environment occupies the divine life, societal needs and psychological requirements of a child which is growing age (Frantz & Mayer, 2014).

There are different components of the good educational environment i.e. building of the school, rooms for study e.g. class rooms, necessary equipment e.g. chairs, tables etc., grounds for playing different games, science laboratories for experimentations, libraries for reading different kind of books and other helping source which assist the teachers for the delivering the constructive lesson for the development of child (Afuwape & Adeyi, 2019). Fraser (1998) elaborates that societal, psychosomatic and instructional skills are the basic of the child in teaching learning process where fruitful learning occurs. Good learning environment implies good impact on the students' performance by means of good curriculum, good pedagogical skill and good understanding with peers.

Haertel et al. (1981) determined that the observation of the examinees about the environment of the class is a mind blowing component which indicate some criteria of the outcome of the examinees like success, inspiration, gratification and happiness. Researchers also explained that success of the student as well teachers regarding the reasoning and sentimental knowledge consequences are frequently related with environment of the classrooms. It was professed as possessing superior cohesiveness and pleasure.

Arshad et al. (2018) describe environment of the school means the degree to

which school locales encourage protection of the examinees and health of the examinees. It comprises the issues like somatic plant, the educational atmosphere, accessible somatic and emotional health. Frenzel et al. (2007) explained that learning and achievement in the perspective of performance is directly linked with good environment. In this way good learning is a theme of performance.

The most important and key place for the examinees for the intellectual growth and physical development is class room of any institution. For the better performance of the students, it is very important to set and achieve the good in the perspective of learning in the good learning environment. Because school plays an important contribution in the teaching learning process of the students and teachers, so we will have to secure and support the good environment for constructive and fruitful learning. In this way, student work hard to achieve the goals. On other hand side if we will not provide the good environment to the students his/ her creativities and learning activities will be hindered (Cleland et al., 2012).

Basit (2005) explained that number of factors affect the class room:

- Pictorial or optical factors
- Audio or sound factors
- Emotional or intellectual factors
- Longitudinal factors
- Time/ spell factors

These factors discuss the quality of teaching learning process in classroom. These factors can be resolute due to the natural and artificial light available in class room. It also provides the proper way to set the proper environment of the classrooms in various ways like pictorial motivation, adaptation and arrangement. Auditory factor is a most significant in the stream of two ways conversation in classroom. Level of noise in the class room depends upon design of the classroom

and school too, organizational level and pedagogical skill during lesson.

Halstead (1974) narrated that physical condition of the environment in the perspective of learning and achievement based upon close interaction of teacher, students, classroom setting and physical position of the schools. There are so many factors which physically affect the learning of the students like uncomfortable sitting position, congested classroom and suffocated classroom etc. sometime building of the educational institution is very attractive but the administration is unable to provide the good teaching learning atmosphere. According to Taylor (2009), association concerning milieu and strategy in classroom. Researcher originates that somatic environment of classroom acts as “Silent curriculum”. In other words, design of environment of classroom ease and increase the process of learning resembling the explicit curriculum.

The effect of environment of the school at different achievement level of examines in high school “A” senatorial district of Benue state, Nigeria. In this article the researcher focused only three factors of school environment (Hosany et al., 2015). School environment and academic achievement of standard ix students” there are no research questions in this article the researcher explained the difference between boys and girls and learning difference between English and Tamil medium students and also explained the difference between urban and rural students but many other factors have missed (Boey et al., 2003).

Impact of school environment on academic performance plays an important role in teaching learning process of students. Researcher demonstrated the building topology and spaces and architectural design considerations. These researches have conducted in their perspective and they have missed school climate and various factors or sub factors of environment internationally. These researches have findings in

alignment, present study some have different findings. This research is being conducted in our context. This research will bridge the gap of research studies in local context (Abiam et al., 2016).

Purpose of the Study

The basic purpose of study is to studying factors; effect of teacher, materials required for good environment, and different approach of teacher toward students in a specific teaching learning environment. These are the factors which affect the effect of school environment on students’ performance as perceived by teacher at secondary level in Lahore district. The results of the study could affect the teacher to improve learning environment in teaching learning process in secondary school in Lahore district.

Statement of the Problem

It is the need of the present condition of the educational institution to describe the various problems and issues of the critical condition and efficiency of the examinees. Since number of years it is come to know that performance and efficiency of the examinees is pitiable day by day. It is very obvious that examinees faced number of problems, issues, difficulties and hurdles in different ways in the perspective of learning at different level of study; but in spite of all we will have to solve all the problems and issues completely or due to some extent which birth the good environment. In this way the performance of the students will become better and better. This was the main reason that researcher selects this topic “Effect of School Environment on Students’ Performance: A Secondary Level study in Pakistan”.

Significance of the Study

In this world everybody wishes to achieve the maximum level of success in the perspective of performance. Every system of education is based upon the performance of examinee mean student

centered approach and grows up to fertile limit in research. In spite of all environments affect the performance and success of students. Number of researchers makes the best effort to pin point the effect of environment educational institution on the performance and achievement of the students. This research provides the substantial information to teachers, investigators, principles those are directly related with learning teaching process and curriculum. Current research study will be further supportive for newly appointed teachers, principals and student too. This research enhances the better coordination and relationship within the stakeholders and of this research study and especially in the society. Academic performance is basically based upon the environment of the school. Locality, setting and position of the school directly affect the performance of the students. If the educational institution is situated in such area of the city where is noise due to air ports, buses and other such activities; students will not be able to perform and achieve well as they want to perform and achieve. In this way student will not perform well academically because of disturbance of teaching learning process (Opara et al., 2017).

Limitation of the Study

There are some limitations for the researcher in this study. It was not possible to take population from all districts the Punjab Province. So the Lahore district will be taken as cluster for the population. All tehsils of Lahore District will be targeted population in this study. The researcher will take Tehsil City as accessible population. The data will be collected from the male and female teachers of the public schools of this tehsil only.

Literature Review

Education is the process which enables the individual to adjust him or herself to the environment, Education is a process that directing the children to have worthy interest in

the various phases of life. Education creates an environment which is stimulating to develop desirable of individual as well as social Personality. Education makes a man right thinker, and right way (Romulo et al., 2008).

Environment plays an important role in the education of children. Children learn from their environment. Environment plays a vital role in the learning and personality of the students. It is the responsibility of school to provide learning environment to students for their development, so they perform their positive role in the betterment of the society. School environment effect the students' personality, mental growth and development (Rosenberg, 1999)

What is Environment?

Environment is physical and social setting of the institution. According to the Merriam- Webster dictionary, Environment means "The circumstances, objects or conditions by which one is surrounded" The collection of communal and traditional situations effect the life of a single person or group of people (Staff, 2004).

Concept of Environment

"Environment literarily means surrounding everything that effect and organism during its life time is collectively known as its environment. A variety of phenomena can be crowded under the word environment physical context, action context social climate, life space etc." (Chase et al., 2014).

Concept of School Environment

Basically environment refer to functioning place of child where he/she perform the initial functions of his/ her childhood like crawling, walking, playing and so much other activities. The first educational institution of the child is his/her home; his brother and sister are his peers. There are other needs of the child like psychosomatic needs, transcendent needs, nerve needs communal needs. This is basically a place

where child live and remain in social contact with other in the perspective of his initial activities (Wells & Claxton, 2002).

Physical or corporal environment like amenities, services, tools and apparatus; policies and strategies of the institution like allocation of time; physical exercise and mental health of the educational entertainment and educational duties give the proper arrangement and construction to the physical environment and games; signs to contribution and policies to encourage contribution. Environment of the school is approximately considered by its amenities, laboratory, games for good health and disciplinary strategies and duties (Elliot et al., 2005).

What is school Climate?

Climate plays an important role in the development of the school in various ways. It guides and support the principals, students, teacher and other stakeholders to give the importance to the school (Freiberg & Stein, 1999).

School climate is also defined as “the quality of a school that creates healthy learning place, nurtures children and parents dreams as aspirations, stimulates teacher’s creativity and enthusiasm and evaluates all of its members”. School environment or school climate are same to each other when we say climate we realize happiness, healthiness, Physical, psychological caring within schools and class rooms (Freiberg, 2005).

What is School Culture?

Environment, climate and culture explain the efficiency, success, value and perfection of the school. In this regard there are two typologies.

- First topology recommends four “ideal type” like cultures, ethical and moral values of the school, based on two underlying domains;
- Second topology is extra elaborative and

dynamic. It recommends two “ideal type” like culture of the school (Deal & Peterson, 2016).

Difference between School Culture, School Climate and School Environment

Over all the personality of school, Norms and values of shared experiences and traditions are included in school culture. School climate means the physical appearance of the school. It displays the students work, shape and welcoming environment. Researchers explained difference among climate, environment and culture. Researcher narrated that how school are reviewed under the domain of environment, culture and climate in different psychosomatic and anthropological aspects (Hoy et al., 1991).

Climate of the school initiate the information from the various sources. There are some other sources those give the perception and climate measures to compute foundations of the organization of school by means of authenticated survey tools. On the other hand, side observe the philosophy of the school and use the different levels of considerations; sketch and drawings of students; and interview of the students in express the condition of educational institute & class rooms (Bradshaw et al., 2014).

This study investigates the impact of the prior school environment on academic achievement of students at the secondary stage in Punjab (Pakistan). School environment is a very important school resource input. All the indicators of school environment collectively produce an academic environment that is helpful for the student achievement. The present school environment of a session is the prior school environment for the next session. Therefore, this study used mean of the prior five years results of SSC examination. Population of the study comprised all secondary and higher secondary schools and secondary students in Punjab. Overall, a total of 288 schools, and then 20 students from each school were randomly

selected as the sample of the study. The longitudinal data of academic achievement in the form of aggregate marks of the annual examinations of the Classes VI, VII, & VIII as prior achievement and that of the Class X as academic achievement of the same students through “Result Sheet”. The data were summarized at school level and then analyzed collectively. Pearson correlation was used to find out the relationship (association) of the prior school environment with academic achievement. Furthermore, Stepwise Regression analysis with linear function was used to find out the differential impact (causal-relationship) of the prior school environment on academic achievement. The results of the study show that the prior school environment is an important predictor of academic achievement for arts students; however, it has some insignificant positive impact on academic achievement of science students. The insignificant and weak causal-relationship for science students may be improved if the indicators of school environment are properly defined and improved up to the higher standards. Prior school environment is very helpful in producing the present school environment. In this way, both the present and the prior school environments are important. The policy implications of the study are that the prior school environment provides the accelerating or the declining trend of academic achievement of students (Dahar et al., 2009).

Components of school environment

There are two components of school environment (Morrison et al., 2015).

- i. Hardware Components.
- ii. Software Components.

i. Hardware Components:

It composed of physical components and physical milieu. Physical environment refers to the upkeep, ambient noise, lighting, indoor air quality, and thermal comfort of the school’s

physical building and its location within the community.

ii. Software Components

It includes human components and standing patterns of behavior

Another research study described the five components of school environment (Erdoğan et al., 2009).

- i. Physical Environment
- ii. Psychological Environment
- iii. Social Environment
- iv. Cultural Environment
- v. Political environment

i. Physical Environment

Physical environment plays a central role in any activity and makes it more conducive, successful and achieve able. Physical facilities compose strategic factor in the operation and functioning of an organization as they determine the excellent performance of any social organization or system including education. Physical facilities are one of the stimulating components that play a fundamental role in improving academic performance in the school system. This includes; school building, accommodation, classrooms, libraries, laboratories, furniture, science laboratory equipment, apparatus, recreational equipment, playground, and other instructional material. The availability of physical physicality’s, relevancy, and sufficiency effect academic achievement positively. On the other hand, poor school buildings, and overcrowded class rooms affect student’s academic performance negatively (Lackney, 1994).

ii. Psychological Environment

Psychological environment tends to preserve the individual characteristics that are compatible with their prevailing aspects. When individuals in an environment are offered information about their learning environment, opportunities for adaptation to the environment can affect the individual’s expectations of the social setting (Moos, 2002).

The psychological environment refers to the social quality of the school and classroom especially it relates perceptions and feelings about social relationship among students and teachers. The school psychological environment, which refers to the school social climate, classroom social interactions, and school social relationship are often used interchangeably when discussing the class room learning environment (Cai et al., 2012).

iii. Social Environment

The social surrounding of a school constituted its social environment. A learner is in constant interaction with the peers and the teachers for a significant part of the day he spends in the school every interaction and interpersonal relationship of a learner occurs in a social environment, students' interaction with teachers and others in a social environment is also known as socialization of school environment (McDonald et al., 2010).

iv. Cultural Environment

Cultural includes products that are humanly produced, both material and immaterial (building, values) as well as materially derived. Products such as social class and the political order cultural environment influence the student's performance (Van Steensel, 2006).

v. Political environment

Dominance of one social class over others is called hegemony since teachers and students in a school belong to one or the other caste or community group, the practices of hegemony are also, found in the school environment. Even inside the class room school students receive better attraction and treatment while others do not. Hence every school creates a political environment for the learner (Kuklinski et al., 2001).

Factors Restore the School Environment:

According to Wen-li (2008) following are the factors which restore the school environment.

Good sense of direction, positive board support, consistent credibility, knowledgeable communicative leader, satisfying the hazard, constructive conversation of ideas, reliability regarding the practices, authorization of the management, stimulating and clarifying the aims and objectives of the students, give proper time to the management to detect tasks, confidence in the institute, teacher conciliation, participation and objectives, and combined objectives

Factors of School Environment

Following are the factors which determined the academic performance of students (Krajcik & Czerniak, 2018).

- i. Students characteristic
- ii. Teacher characteristic
- iii. Instructional process
- iv. Socio Economic factors

Factors of Physical Environment in Classroom

According to Suleman and Hussain (2014) following are the factors of physical environment in the classroom

Visual factor:

Refers to the quality of lighting available in different parts of the class room. It is determined by the level of natural and artificial light available in the classroom. it also refers to the way by which the class room environment is arranged visual interesting, creating a favorable atmosphere.

Acoustic factor:

Is an important factor as we mostly depend upon verbal communication in our class room? Noise level mainly depends upon school design, class room organization and teaching methodologies applied during a lesson.

Thermal factor refers to the heating and ventilation of the heating and ventilation of the class room and are generally out of the teacher 's control as they are climate variables. It plays an important role in student's performance and smooth learning process.

Spatial factor

Spatial factors relate to the space management and have a great impact on behavior particularly on communication.

Time factor

Time factor refers to the amount of time a student in participating in learning process i.e. the number of minutes the student is actively participating in teacher directed lessons and activities.

Lahore district".

Objectives of the Study

Following are the objectives of the study:

1. To explore the effect of school environment on students' performance
2. To find out the effect of school environment on students' students' performance by students' gender and educational stream
3. To compare science and arts students' school environment of male and female students used for students' performance
4. To explore the effect of teachers' age, professional and academic qualification, teaching experience and nature of job on their students' educational performance

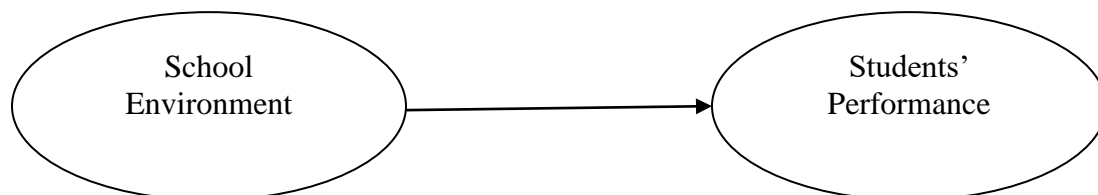
Research Questions

Following are the research questions of the study.

1. To what extent, school environment effect on students' performance?
2. To what extent school environment effect on male students' educational performance?
3. To what extent, school environment effect on female students' students' performance?
4. How to compare male and female students' school environment used for students' performance?
5. To what extent science students' school environment effect on students' performance?
6. To what extent arts students' school environment effect on students' performance?
7. What is the comparison of science and arts students' school environment for students' performance?
8. Is there any effect of teachers' age, profession, academic qualification, teaching experience and nature of job on their students' performance?

Conceptual Framework:

A research study was conducted in Canada with 696 students at elementary level, the school environment was significantly associated with students' achievement (Gietz & McIntosh, 2014). According to Baek and Choi (2002), a research study was conducted in Korea with 1012 students as sample of the study and result show that school environment was significantly correlated with students' performance. A research study was conducted in India with 400 sample of grade 9th students and result shows that school environment was not significantly correlated with students' academic achievement (Lawrence & Vimala, 2012).

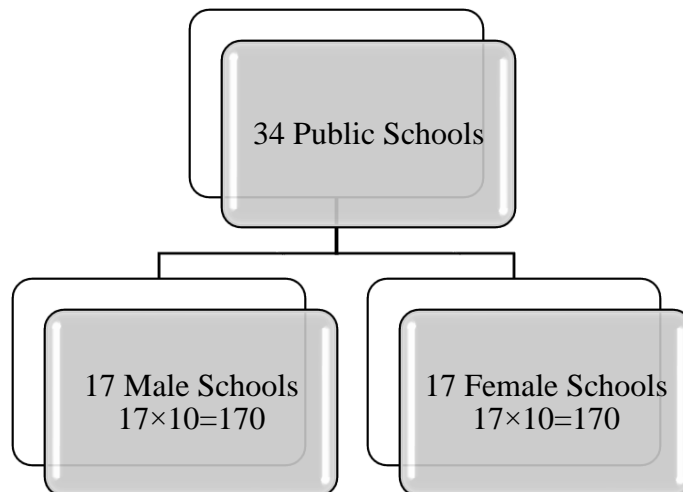


Methodology:

Total number of elements from which subjects are selected called population of the study (Lakhan et al., 2020; Sajjad et al., 2022; Siddique et al., 2021; Tufail & Mahmood, 2020; Jabeen et al., 2021; Kanwal., 2022). All teachers of the public schools of Lahore district will be the population of the study. There are (349) 186 male and 163 female secondary schools in Lahore District. The teachers are 2304 in numbers, 1112 male and 1192 female working in government boys and girls schools in Lahore district. Ten percent schools will be selected as targeted clusters of population on accessibility and availability criteria.

The number of subjects selected from the population on the basis of some specific

technique like systematic random sampling, cluster sampling, multi stage sampling etc are called sample of the study (Ali et al., 2021; Saeed et al., 2021; Siddique et al., 2021., Siddique et al., 2020). Thirty-four male and female schools were selected as sample of the study on simple random sampling technique including 17 male public secondary schools and 17 female public secondary school form the tehsil city of district Lahore. The sample was selected from these sampled secondary schools of Lahore district. Ten teachers were selected from each secondary schools including male and female. So, 170 male and 170 female teachers were selected from theses sampled school. So, the total sample of the study is 340 teachers.



Sampling Technique

Selection of an appropriate method depends upon the aim of the study. Sometimes less rigorous methods may be acceptable, such as incidental or quota samples, but these methods less guarantee a representative sample. Common approach is to use random or probability samples. So, simple random sample technique was used for the selection of sample.

Instrument

Literature review, Expert reviews, meeting, and observational studies provide information about the tools that have been used to collect the data. A structured questionnaire was used to get information about the research study. Effect of school environment on students' performance: as perceived by teacher at secondary level in Lahore district were measured by using five (5) point - Likert type survey questionnaire developed by Edmunds et al. (2012) response mode of Strongly Disagree, Disagree, Undecided, Agree, & Strongly Agree. The questionnaires were

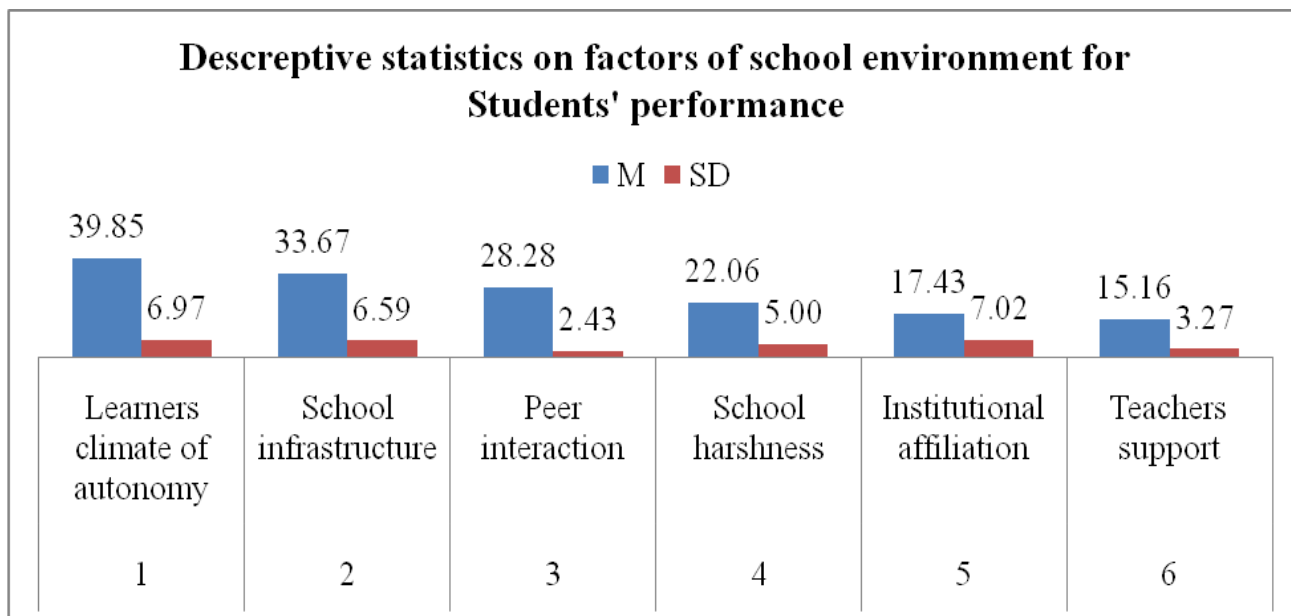
composed of two parts. The first part was consisted of 5-point Likert scale about the components of school environment and the second part was consisted of about the performance of students studying in 10th grade in sampled secondary school of district Lahore. To test the instrument's validity and reliability, the initial draft was administered on 50 students of grade 10th with different gender. The feedback obtained from this first instrument was used to revise the final instrument. The final instrument was tested for reliability. Two items were excluded from the initial draft and thus final questionnaire consisted of 30 items. Three hundred and forty (340) copies of the questionnaires were distributed among the secondary school students. The questionnaire was administered on the sample school students during the academic session (2018-2020).

Data Collection

The data was collected by the researcher himself. Before data collection the heads of the sample schools were contacted to obtain informed consent. The questionnaire was administered to the students in their normal classrooms. Through the help of the various headmasters and headmistresses of the schools, the researchers met the selected subjects and the motivation for the study was made known to them. In addition, the participants were instructed to work independently and they were supervised by the researchers. They were allowed to use 40 minutes to answer the questions. All the questionnaires were collected back from the students at the end of the specific time.

Data Analysis:

Figure 1: Descriptive statistics on SE and SP



Interpretation reflect that students have maximum intentions on of factors of school environment learner climate of autonomy (M = 39.85, SD = 6.97), then they were satisfied from school infrastructure (M =33.67, SD =6.59),

satisfy from their peer interactions (M = 28.28, SD =2.43), have their options on school harshness (M = 22.06, SD = 5.00), then on institutional affiliation (M =17.43, SD =7.02) and

lastly they were poorly satisfying from their teachers support ($M = 15.16$, $SD = 3.27$)

Key Table 1

S.No		Range
1	Low	$1.00 \leq 2.00$
2	Moderate	$2.01 \leq 3.50$
3	High	$3.51 \leq 5.00$

Table 2

Table of Mean Responses Values about Teacher Support

No.	Statements	S.D	M
1	Teachers take a personal interest in students.	1.30	3.91
2	Teachers go out of their way to help students.	0.70	3.76
3	If students want to talk about something, teachers will find time to do it.	0.882	4.07
4	Students really enjoy their classes.	0.885	4.09
5	Teachers help students to organize their work.	1.15	2.08

In the interpretation of table 1, mean responses values depict that more respondents are showing the effect of school on the students' performance regarding teacher support. In statement "Teachers take a personal interest in students" having ($SD = 1.30$, $M = 3.91$) depict the high perception about teacher support for students at secondary school level. In statement "Teachers go out of their way to help students" having ($SD = 0.70$, $M = 3.76$) indicate the high perception about teacher support for students at secondary school level. In statement "If students

want to talk about something, teachers will find time to do it" having ($SD = 0.882$, $M = 4.07$) demonstrate the high perception about teacher support for students at secondary school level. In statement "Students really enjoy their classes" ($SD = 0.885$, $M = 4.09$) indicate the high perception about teacher support for students at secondary school level. But in statement "Teachers help students to organize their work" students ($SD = 1.15$, $M = 2.08$) indicate the approximately low perception about teacher support for students at secondary school level.

Table 3

Table of Mean Responses Values about Peer Interactions

No.	Statements	S.D	M
6	Students in this school are mean to each other.	0.92	4.07
7	There are kids in this school who pick on other kids.	0.93	4.11
8	Students in this school have trouble getting along with each other.	1.2	2.31
9	In classes, students find it hard to get along with each other.	0.75	4.19
10	Students in this school fell students are mean to them.	1.28	1.60

In the interpretation of table 3, Mean responses values show the high perception for the

student at secondary school level regarding the peer interactions as statement "Students in this

school are mean to each other” having (SD = 0.92, M = 4.07) shows the high perception about peer interactions for students at secondary school level. The statement “There are kids in this school who pick on other kids” having (SD=0.93, M =4.11) depict the high perception about peer interactions for students at secondary school level. The statement “Students in this school have trouble getting along with each other” having (SD = 1.2, M = 2.31) express the moderate perception

about peer interactions for students at secondary school level. The statement “In classes, students find it hard to get along with each other” having (SD = 0.75, M = 4.19) indicate the high perception about peer interactions for students at secondary school level. The statement “Students in this school fell students are mean to them” possessing (SD = 1.28, M = 1.60) representing the low perception about peer interactions for students at secondary school level.

Table 4

Table of Mean Responses Values about Affiliation

No	Statements	S.D	M
11	Students in this school get to know each other really well.	0.76	4.19
12	Students in this school are very interested in getting to know other students.	0.75	4.30
13	Students enjoy working together on projects.	1.15	1.82
14	Students get to know each other well in classes.	0.88	4.00
15	Students enjoy doing things with each other in school activities.	0.89	4.13

In the interpretation of table 3, mean responses values in statement “Students in this school get to know each other really well” having (SD = 0.76, M = 4.19) representing the high perception about affiliation for students at secondary school level. In statement “Students in this school are very interested in getting to know other students” having (SD = 0.75, M = 4.40) representing the high perception about affiliation for students at secondary school level. In statement “Students enjoy working together on

projects” having (SD = 1.15, M = 1.82) indicating the low perception about affiliation for students at secondary school level. In statement “Students get to know each other well in classes” having (SD = 0.88, M = 4.00) representing the high perception about affiliation for students at secondary school level. In statement “Students enjoy doing things with each other in school activities” having (SD = 0.89, M = 4.13) representing the high perception about affiliation for students at secondary school level.

Table 5

Table of Mean Responses Values about Student Autonomy Climate

No	Statements	S.D	M
16	Students in this school have a say in how things work.	0.90	4.15
17	Students help decide how class time is spent.	0.87	4.19
18	In our school, students are given the chance to help make decisions.	0.90	4.10
19	Students get to help decide some of the rules in this school.	1.18	2.11
20	Teachers ask students what they want to learn about.	0.80	4.23

In the interpretation of table 4, mean responses values in statement “Students in this school have a say in how things work” having (SD = 0.90, M = 4.15) representing the high perception about student autonomy climate for students at secondary school level. In statement “Students help decide how class time is spent” having (SD = 0.87, M = 4.19) representing the high perception about student autonomy climate for students at secondary school level. In statement “In our school, students are given the chance to help make decisions” having (SD = 0.90, M = 4.10) representing the high perception

about student autonomy climate for students at secondary school level. In statement “Students get to help decide some of the rules in this school” having (SD = 1.18, M = 2.11) representing the moderate perception about student autonomy climate for students at secondary school level. In statement “Teachers ask students what they want to learn about” having (SD = 0.80, M = 4.23) representing the high perception about student autonomy climate for students at secondary school level.

Table 6 Table of Mean Responses Values about School Structure

No.	Statements	S.D	M
21	Teachers make a point to sticking to the rules in classes.	0.83	4.25
22	When teachers make a rule, they mean it.	0.87	4.08
23	Students are given clear instructions about how to do their work in classes.	1.25	2.26
24	Students understand what will happen to them if they break a rule.	0.83	4.21
25	If some students are acting up in class, the teachers will do something about it.	0.80	4.22

In the interpretation of table 5, mean responses values in statement “Teachers make a point to sticking to the rules in classes” having (SD = 0.83, M = 4.25) representing the high perception about school structure for students at secondary school level. In statement “When teachers make a rule, they mean it” having (SD = 0.87, M = 4.08) representing the high perception about school structure for students at secondary school level. In statement “Students are given clear instructions about how to do their work in classes” having (SD = 1.25, M = 2.26)

representing the moderate perception about school structure for students at secondary school level. In statement “Students understand what will happen to them if they break a rule” having (SD = 0.83, M = 4.21) representing the high perception about school structure for students at secondary school level. In statement “If some students are acting up in class, the teachers will do something about it” having (SD = 0.80, M = 4.22) representing the high perception about school structure for students at secondary school level.

Table 7

Table of Mean Responses Values about the School Harshness

No.	Statements	S.D	M
26	Teachers are very strict here.	0.87	4.11
27	Students get in trouble for breaking small rules.	1.59	3.67
28	Students get in trouble for talking.	0.88	4.11

29	It is easy for a student to get kicked out of class in this school.	1.20	2.24
30	The rules in this school are too strict.	0.77	4.35

In the interpretation of table 6, mean responses values in statement “Teachers are very strict here” having (SD = 0.87, M = 4.11) representing the high perception about school harshness for students at secondary school level. In statement “Students get in trouble for breaking small rules” having (SD = 1.59, M = 3.67) representing the high perception about school harshness for students at secondary school level. In statement “Students get in trouble for talking” having (SD = 0.88, M = 4.11) representing the high perception about school harshness for

students at secondary school level. In statement “It is easy for a student to get kicked out of class in this school” having (SD = 1.20, M = 2.24) representing the moderate perception about school harshness for students at secondary school level. In statement “The rules in this school are too strict” having (SD = 0.77, M = 4.35) representing the moderate perception about school harshness for students at secondary school level.

Research Questions 1

Table 8

Model Summary showing effect of SE on SP

Beta	B	t-value	Sig.	R ²	Adjusted R ²
1.099	0.973	36.748	0.000	0.719	0.718

The above table shows the linear regression between SE and SP, Beta value is 1.099 and sig value p is <.01 having 0.719 value

of R² which indicates significant relationship of SE with SP observed with standardized regression co-efficient ($\beta = .974$).

Research Question 2

Table 9

Model Summary^b reflecting effect of male SE on SP

Beta	B	t-value	Sig.	R ²	Adjusted R ²
4.131	0.808	22.563	0.000	0.653	0.652

The above table shows the linear regression between SE and SP, Beta value is 4.131 and sig value p is <.01 having 0.653 value

of R² which indicates significant relationship of SE with SP observed with standardized regression co-efficient ($\beta = .808$).

Research Question 3

Table 10

Model Summary^b reflecting effect of female SE on SP

Beta	B	t-value	Sig.	R ²	Adjusted R ²
1.199	0.191	3.082	0.000	0.370	0.330

The effect of female school environment of students' educational performance is as above table shows the linear regression between SE and SP, Beta value is 1.199 and sig value p is <.01

having 0.370 value of R² which indicates significant relationship of SE with SP observed with standardized regression co-efficient ($\beta = .191$).

Research Question 4

To compare male and female school environment for students' educational performance

Table 11

Gender wise t-test.

Gender	N	M	SD	df	F	t	P
Male	272	116.38	9.84	528	43.989	34.951	.000
Female	252	151.23	11.46				

Table 11 revealed that t-test was applied to compare female and male school environment towards students' educational performance. Results report significant difference between school environment and students' educational

performance, $t(528) = 34.951$, $p < .01$. It is determined that female students have better school environment ($M = 151.23$, $SD = 11.46$) as compared to male students ($M = 116.38$, $SD = 9.84$).

Table 12

Gender wise Independent sample t-test in factors SE on SP

S.No.	Factors	Gender	N	Mean	SD	F	df	t	p
1	Teachers' Support	Male	272	15.62	4.56	30.921	528	5.070	.01
		Female	252	15.83	3.74				
2	Peer Interaction	Male	272	28.27	1.74	59.131	528	11.141	.01
		Female	252	30.40	3.67				
3	Institutional Affiliation	Male	272	14.78	3.65	213.572	528	11.210	.01
		Female	252	21.72	7.33				
4	Learners' Climate of Autonomy	Male	272	36.25	3.83	4.588	528	36.918	.03
		Female	252	46.08	4.25				
5	School Infrastructure	Male	272	29.78	3.99	122.577	528	28.691	.000
		Female	252	39.10	4.88				
6	School Harshness	Male	272	34.15	5.55	6.588	528	34.918	.000
		Female	252	44.21	6.25				

Table 12 shows that t-test was applied to compare male and female school environment on students'

educational performance. Output reports significant difference between school

environment and students' educational performance factors regarding teachers' support, $t(528) = 5.070$, $p < .05$, peer interaction, $t(528) = 11.141$, $p < .05$, institutional affiliation, $t(528) = 11.210$, $p < .05$, learners' climate of autonomy, $t(528) = 36.918$, $p < .05$, school infrastructure, $t(528) = 28.691$, $p < .01$ and also establish significant difference factor regarding school harshness, $t(528) = 34.918$, $p < .01$. It is determined that male students have about corresponding school environment factors regarding teachers' support ($M = 15.83$, $SD =$ infrastructure ($M = 39.10$, $SD = 4.88$) and factors on school harshness ($M = 44.21$, $SD = 6.25$).

3.56), peer interaction ($M = 28.27$, $SD = 1.74$), institutional affiliation, ($M = 14.78$, $SD = 3.65$), learners' climate of autonomy ($M = 36.25$, $SD = 3.83$), school infrastructure ($M = 29.79$, $SD = 3.99$) and school harshness, ($M = 34.15$, $SD = 5.55$) as compared to female students on factors teachers' support ($M = 15.93$, $SD = 3.74$, peer interaction ($M = 30.40$, $SD = 3.67$), institutional affiliation ($M = 21.72$, $SD = 7.33$), learners' climate of autonomy ($M = 46.08$, $SD = 4.25$), school

Research Question 5

Table 13

Model Summary^b showing effect of science students SE on SP

Beta	B	t-value	Sig.	R ²	Adjusted R ²
3.347	0.271	4.533	0.000	0.473	0.470

The effect of science school environment of students' educational performance is as above table shows the linear regression between SE and SP, Beta value is 3.347 and sig value p is $<.01$

having 0.473 value of R² which indicates significant relationship of SE with SP observed with standardized regression co-efficient ($\beta = .271$).

Research Question 6

Table 13

Model Summary^b showing effect of Arts students SE on SP

Beta	B	t-value	Sig.	R ²	Adjusted R ²
4.099	0.147	2.357	0.000	0.210	0.170

The effect of science school environment of students' educational performance is as above table shows the linear regression between SE and SP, Beta value is 4.099 and sig value p is $<.01$

having 0.210 value of R² which indicates significant relationship of SE with SP observed with standardized regression co-efficient ($\beta = .147$).

Research Question 7

Table 14

Stream wise Independent sample t-test on SE and EP

Stream	N	M	SD	F	df	t	p
Arts	262	120.89	8.78	13.656	528	32.991	.03
Science	262	150.51	12.68				

Table 14 depicts that t-test was applied to compare science and arts school environment towards students' educational performance. Interpretation reflect significant difference between science and arts school environment and students' educational performance, $t(528) =$

32.881 , $p < .05$. It is determined that science students have better school environment ($M = 150.51$, $SD = 12.68$) as compared to arts students ($M = 118.89$, $SD = 9.58$).

Table 15

Independent sample t-test on factors of stream wise SE and EP

No	Factors	Stream	N	Mean	SD	F	df	t	p
1	Teachers' Support	Science	262	15.41	4.57	33.228	522	5.815	.001
		Arts	262	16.99	3.71				
2	Peer Interaction	Science	262	28.29	1.72	60.212	522	11.314	.002
		Arts	262	30.30	3.70				
3	Institutional Affiliation	Science	262	15.51	3.77	181.234	522	12.183	.004
		Arts	262	21.59	7.20				
4	Learners' Climate of Autonomy	Science	262	35.19	3.15	14.030	522	35.549	.001
		Arts	262	46.68	3.63				
5	School Infrastructure	Science	262	26.60	2.16	158.597	522	32.539	.005
		Arts	262	37.15	4.16				
6	School Harshness	Science	262	28.26	1.84	59.131	528	10.150	.04
		Arts	262	28.40	2.87				

Table 4 reports that independent sample t-test was used to evaluate science and arts school environment towards students' educational performance. Interpretation reflect significant difference between science and arts school environment and students' educational performance factors regarding connection, $t(522) = 5.815$, $p < .01$, compassion, $t(522) = 11.314$, $p < .01$, mindfulness, $t(522) = 12.183$, $p < .01$, meaningful work, $t(522) = 35.549$, $p < .01$ and also found significant difference factor regarding transcendence, $t(522) = 32.539$, $p < .01$. It is concluded that male students have about equivalent school environment factors regarding

teachers' support ($M = 15.41$, $SD = 4.57$), peer interaction ($M = 28.29$, $SD = 1.72$), institutional affiliation ($M = 15.51$, $SD = 3.77$), learners' climate of autonomy ($M = 35.19$, $SD = 3.15$), school infrastructure ($M = 26.60$, $SD = 2.16$), school harshness ($M = 28.26$, $SD = 1.84$) as compared to arts students on factors teachers' support ($M = 16.99$, $SD = 3.71$), peer interaction ($M = 30.30$, $SD = 3.70$), institutional affiliation ($M = 21.59$, $SD = 7.20$), learners' climate of autonomy ($M = 46.68$, $SD = 3.63$) school infrastructure ($M = 37.15$, $SD = 4.16$) and factors on school harshness ($M = 28.40$, $SD = 2.87$).

Research Question 8

Table 16

Model Summary^b showing effect of students' demographic variables on SP

Model		Unstandardized Coefficients		Standardized Coefficients		R ²	Adjusted R ²
		B	SE	Beta	t		
1	(Constant)	404.079	1.052		384.049	.000	.750
	Locality	.054	.482	.004	.101	.912	.610
	Nature of Employment	3.954	.477	.293	5.183	.000	
	Age	1.767	3.563	.231	.193	.622	
	Professional Qualification	.346	.203	.021	-.833	.470	
	Academic Qualification	.980	4.099	.159	-.222	.832	
	Teaching Experience	.373	2.069	.109	-.398	.698	
	Subject	.340	.169	.114	1.761	.052	

a. Dependent Variable: Students educational performance

Above analysis was carried out to assess the effect of teachers' locality, nature of employment, age, professional qualification, academic qualification, teaching experience and teaching subject on students' performance. Interpretation illustrate composition of significant regression equation ($F(7, 523) = 676.700, p < .01$) illustrating .750 value of R^2 with 75.40 % increase in variances were seen with standardized regression co-efficient in account of teachers' locality ($\beta = .004$), teachers' nature of employment ($\beta = .293$), teachers' age ($\beta = .231$), teachers' professional qualification ($\beta = .021$), teachers' academic qualification ($\beta = .159$), teachers' teaching experience ($\beta = .109$) and teachers' teaching subject ($\beta = .114$). Showing results of significant regression equation, interpretation of independent sample t-test states that students' nature of employment, $t(522) = 5.183, p < .05$ were significant predictors on students' educational performance whereas teachers' locality, $t(522) = .101, p < .05$, teachers' age, $t(522) = .193, p < .05$, teachers' professional

qualification, $t(522) = .833, p < .05$, teachers' academic qualification, $t(522) = .222, p < .05$, teachers' teaching experience, $t(522) = .398, p < .05$ and students' teaching subject, $t(522) = 1.761, p < .05$ were non-significant predictor on students' educational performance. Secondary schools' students' predicted educational were equal

to $.054 + 3.954 + 1.767 + .346 + .980 + .373 + .340$ scores whereas effect of students' locality, nature of employment, age, professional qualification, academic qualification, teaching experience and teaching subject were calculated in favor of teachers' demographic variables. It is concluded that secondary schools' students' performance was increased 7.808 scores after applying teachers' demographic variables in classroom.

Discussion and Conclusion:

The current study supports the research of Baek and Choi (2002) that school environment and students' performance significantly correlated with one another. The current study further

supports the research study of Gietz and McIntosh (2014) that school environment significantly correlated with school environment. This study negates the research study of Lawrence and Vimala (2012) that there is no relationship between school environment and school academic performance.

It is concluded that students have maximum intentions on of factors of school environment learner's climate of autonomy, they are satisfied from school infrastructure, peer interactions, school harshness, and institutional affiliation but they are poorly satisfying from their teacher's support. It is concluded that students' educational performance is increased .227 by applying school's environment in classrooms for acquiring students' better educational performance. It is concluded that students' educational performance was increased 4.131 by applying male school environment on students in classrooms for acquiring students' better educational performance. It is concluded that students' educational performance was increased 1.199 scores by applying female school environment in classrooms for obtaining students' better educational performance. It is concluded that female students have better school environment ($M = 151.23$, $SD = 11.46$) as compared to male students ($M = 116.38$, $SD = 9.84$). It is concluded that male students have about equivalent school environment factors regarding teachers' support, peer interaction, institutional affiliation, learners' climate of autonomy, school infrastructure and school harshness, as compared to female students on factors teachers' support, peer interaction, institutional affiliation, learners' climate of autonomy, school infrastructure and factors on school harshness. It is concluded that students' educational performance was increased 3.347 scores by applying science school environment on students in classrooms for acquiring students' better educational performance. It is concluded that arts' students' educational performance was

increased 3.347 scores by applying arts school environment on students in classrooms for acquiring students' better educational performance. It is concluded that there exists significant difference between science and arts school environment and students' educational performance. So science students have better school environment ($M = 151.23$, $SD = 11.46$) as compared to male students ($M = 116.38$, $SD = 9.84$). It is further concluded that male students have about equivalent school environment factors regarding teachers' support, peer interaction, institutional affiliation, learners' climate of autonomy, school infrastructure, school harshness as compared to arts students on factors teachers' support, peer interaction, institutional affiliation, learners' climate of autonomy, school infrastructure and factors on school harshness. It is concluded that secondary schools' students' performance was increased 7.808 scores after applying teachers' demographic variables in classroom.

Recommendation

Following are the recommendations of the research study:

- Teachers should provide the supportive environment to the students.
- Teachers should provide the better school environment to the male students for better performance.
- Teachers should provide the good environment to the arts students for better performance.

Limitation:

- The current study is delimited to the secondary school level only
- It is further delimited to the district Lahore only.

Future Trend:

The same variable could be used in the other type of research like experimental research, correlational research and action research as well.

The research can use the self-structured questionnaire in the other types of research as well. The research study may be conducted at primary, elementary, higher secondary, college and at university level too.

Acknowledgement

It is the great blessing of ALLAH (سبحان و تعالی) and HAZRAT MUHAMMAD (خاتم النبیین ﷺ) for the completion of paper. The researchers are gratified to all the stakeholders for helping to complete this manuscript.

References:

1. Abiam, P. O., Abonyi, O. S., Ugama, J. O., & Okafor, G. (2016). Effects of Ethnomathematics-based Instructional Approach on Primary School Pupils' Achievement in Geometry. *Journal of Scientific Research and Reports*, 9(2), 1-15.
<https://doi.org/10.9734/JSRR/2016/19079>
2. Afuwape, M. O., & Adeyi, F. A. (2019). Discovery and Emancipation of Basic Science and Technology Students' Behaviour from School Environment Constraints. *KIU Journal of Social Sciences*, 5(2), 247-253.
3. Ali, M. S., Siddique, M., Siddique, A., Abbas, M., & Ali, S. (2021). Teachers' citizenship behavior as a predictor of teaching performance: Evidence from Pakistani context. *Humanities and Social Sciences Reviews*, 9(3), 1135-1141.
<https://doi.org/10.18510/hssr.2021.93112>
4. Arshad, M., Ahmad, D., Qamar, D. Z. A., & Gulzar, F. H. (2018). Influence of school environment on students outcomes at secondary level. *American Based Research Journal*, 7(12), 16-23.
5. Arul Laurence, A. (2012). School environment & academic performance of standard six students. *Journal of Educational and Industrial Studies in the World*, 2(3), 22-27.
6. Baek, S.-G., & Choi, H.-J. (2002). The relationship between students' perceptions of classroom environment and their academic achievement in Korea. *Asia Pacific Education Review*, 3(1), 125-135.
<https://doi.org/10.1007/BF03024926>
7. Basit, A. (2005). Classroom management techniques at secondary level and developing a model for urban schools for District Peshawar M. Phil Thesis, Faculty of Education, Allama Iqbal Open University Islamabad].
8. Boey, C., Omar, A., & Arul Phillips, J. (2003). Correlation among academic performance, recurrent abdominal pain and other factors in Year-6 urban primary-school children in Malaysia. *Journal of paediatrics and child health*, 39(5), 352-357.
<https://doi.org/10.1046/j.1440-1754.2003.00173.x>
9. Bradshaw, C. P., Waasdorp, T. E., Debnam, K. J., & Johnson, S. L. (2014). Measuring school climate in high schools: A focus on safety, engagement, and the environment. *Journal of school health*, 84(9), 593-604.
<https://doi.org/10.1111/josh.12186>
10. Cai, Y., Lu, L., Li, N., Zhu, J., He, Y., Redmon, P., Goyal, A., Huang, C., Qiao, Y., & Ma, J. (2012). Social, psychological, and environmental-structural factors associated with tobacco experimentation among adolescents in Shanghai, China. *International journal of environmental research and public health*, 9(10), 3421-3436.
<https://doi.org/10.3390/ijerph9103421>

11. Chase, P. A., Hilliard, L. J., Geldhof, G. J., Warren, D. J., & Lerner, R. M. (2014). Academic achievement in the high school years: The changing role of school engagement. *Journal of youth and adolescence*, 43(6), 884-896. <https://doi.org/10.1007/s10964-013-0085-4>
12. Chuma, P. (2012). Challenges affecting teaching-learning in primary schools in Kenya. A case study of Central Division Manderu East District Executive Med Project, Moi University.
13. Cleland, V. J., Ball, K., King, A. C., & Crawford, D. (2012). Do the individual, social, and environmental correlates of physical activity differ between urban and rural women? *Environment and behavior*, 44(3), 350-373. <https://doi.org/10.1177/0013916510393275>
14. Dahar, M. A., Dahar, R. T., & Dahar, R. A. (2009). Impact of the prior school environment on academic achievement of students at the secondary stage in Punjab (Pakistan).
15. Deal, T. E., & Peterson, K. D. (2016). *Shaping school culture*. John Wiley & Sons.
16. Edmunds, R., Thorpe, M., & Conole, G. (2012). Student attitudes towards and use of ICT in course study, work and social activity: A technology acceptance model approach. *British Journal of Educational Technology*, 43(1), 71-84. <https://doi.org/10.1111/j.1467-8535.2010.01142.x>
17. Elliot, A. J., Shell, M. M., Henry, K. B., & Maier, M. A. (2005). Achievement goals, performance contingencies, and performance attainment: An experimental test. *Journal of educational psychology*, 97(4), 630. <https://doi.org/10.1037/0022-0663.97.4.630>
18. Erdoğan, M., Kostova, Z., & Marcinkowski, T. (2009). Components of environmental literacy in elementary science education curriculum in Bulgaria and Turkey. *Eurasia Journal of Mathematics, Science and Technology Education*, 5(1), 15-26. <https://doi.org/10.12973/ejmste/75253>
19. Frantz, C. M., & Mayer, F. S. (2014). The importance of connection to nature in assessing environmental education programs. *Studies in Educational Evaluation*, 41, 85-89. <https://doi.org/10.1016/j.stueduc.2013.10.001>
20. Fraser, B. J. (1998). The Launch of a New Journal: Editor's Introduction. *Learning Environments Research*, 1(2), 137. <https://doi.org/10.1023/A:1009944931512>
21. Freiberg, H. J. (2005). *School climate: Measuring, improving and sustaining healthy learning environments*. Routledge.
22. Freiberg, H. J., & Stein, T. (1999). *Measuring, improving and sustaining healthy learning environments*. School climate: Measuring, improving and sustaining healthy learning environments, 11-29.
23. Frenzel, A. C., Pekrun, R., & Goetz, T. (2007). Perceived learning environment and students' emotional experiences: A multilevel analysis of mathematics classrooms. *Learning and Instruction*, 17(5), 478-493. <https://doi.org/10.1016/j.learninstruc.2007.09.001>
24. Gietz, C., & McIntosh, K. (2014). Relations between student perceptions of their school environment and academic

- achievement. *Canadian Journal of School Psychology*, 29(3), 161-176. <https://doi.org/10.1177/0829573514540415>
25. Haertel, G. D., Walberg, H. J., & Haertel, E. H. (1981). Socio-psychological environments and learning: A quantitative synthesis. *British educational research journal*, 7(1), 27-36. <https://doi.org/10.1080/0141192810070103>
26. Halstead, D. K. (1974). *State-wide Planning in Higher Education*. Washington, DC: US Government Printing Office, 731-753.
27. Hosany, S., Prayag, G., Deesilatham, S., Caušević, S., & Odeh, K. (2015). Measuring tourists' emotional experiences: Further validation of the destination emotion scale. *Journal of Travel Research*, 54(4), 482-495. <https://doi.org/10.1177/0047287514522878>
28. Hoy, W. K., Tarter, C. J., & Kottkamp, R. B. (1991). *Open schools, healthy schools: Measuring organizational climate*. Corwin Press.
29. Jabeen, M. J. A., Robina Naqvi, Tajammal Hussain Awan, Muhammad, & Siddique. (2021). Prevalence of Students with Learning Difficulties in Basic Arithmetic Operations in the Subject of Mathematics at Elementary Level. *Multicultural Education*, 7(5), 444-453. <https://doi.org/10.5281/zenodo.5110685>
30. Kanwal, W, A. M. Q., Nadeem, H.A, Sarfraz Ahmed Khan,, & Siddique, M. (2022). Effect of Conceptual Understanding of Mathematical Principles on Academic Achievement of Secondary Level Chemistry Students. *Multicultural Education*, 8(3), 242-254. <https://doi.org/10.5281/zenodo.6370449>
31. Kamaruddin, R., Zainal, N. R., Aminuddin, Z. M., & Jusoff, K. (2009). The quality of learning environment and academic performance from a student's perception. *International Journal of Business and Management*, 4(4), 171-175.
32. Krajcik, J.S., & Czerniak, C.M. (2018). *Teaching Science in Elementary and Middle School: A Project-Based Learning Approach* (5th ed.). Routledge. <https://doi.org/10.4324/9781315205014>
33. Kuklinski, J. H., Quirk, P. J., Jerit, J., & Rich, R. F. (2001). The Political Environment and Citizen Competence. *American Journal of Political Science*, 45(2), 410-424. <https://doi.org/10.2307/2669349>
34. Lackney, J. A. (1994). *Educational Facilities: The Impact and Role of the Physical Environment of the School on Teaching, Learning and Educational Outcomes*. Center for Architecture and Urban Planning Research, University of Wisconsin-Milwaukee, PO Box 413, Milwaukee, WI 53201.
35. Lakhani, G. R., Ullah, M., Channa, A., ur Rehman, Z., Siddique, M., & Gul, S. (2020). The Effect of Academic Resilience and Attitude on Managerial Performance. *Elementary Education online*, 19(3), 3326-3340. <https://doi.org/10.17051/ilkonline.2020.03.735498>
36. Lawrence, A., & Vimala, A. (2012). School Environment and Academic Achievement of Standard IX Students. *Online Submission*, 2(3), 210-215.
37. Lizzio, A., Wilson, K., & Simons, R. (2002). University students' perceptions of the learning environment and academic outcomes: implications for theory and practice. *Studies in Higher education*, 27(1), 27-52.

- <https://doi.org/10.1080/03075070120099359>
38. McDonald, N. C., Deakin, E., & Aalborg, A. E. (2010). Influence of the social environment on children's school travel. *Preventive medicine*, 50, S65-S68. <https://doi.org/10.1016/j.ypmed.2009.08.016>
39. Moos, R. H. (2002). 2001 Invited address: the mystery of human context and coping: an unraveling of clues. *American journal of community psychology*, 30(1), 67-88. <https://doi.org/10.1023/A:1014372101550>
40. Morrison, J., Roth McDuffie, A., & French, B. (2015). Identifying key components of teaching and learning in a STEM school. *School Science and Mathematics*, 115(5), 244-255. <https://doi.org/10.1111/ssm.12126>
41. Opara, M., Elloumi, F., Okafor, O., & Warsame, H. (2017, 2017/06/01/). Effects of the institutional environment on public-private partnership (P3) projects: Evidence from Canada. *Accounting Forum*, 41(2), 77-95. <https://doi.org/https://doi.org/10.1016/j.aacfor.2017.01.002>
42. Munir, M., Ali, M. S., Iqbal, A., Farid, M. F., & Siddique, M. (2021). Relationship between Learning Environment and Performance of Students at University Level. *Humanities & Social Sciences Reviews*, 9(3), 877-884. <https://doi.org/10.18510/hssr.2021.9385>
43. Rafiq, H. M., Fatima, T., Sohail, M. M., Saleem, M., & Khan, M. A. (2013). Parental involvement and academic achievement: A study on secondary school students of Lahore, Pakistan. *International Journal of Humanities and Social Science*, 3(8), 209-223.
44. Rômulo R. N. Alves, José A. A. Barbosa, Silene L. D. X. Santos, Wedson M. S. Souto, Raynner R. D. Barboza, "Animal-Based Remedies as Complementary Medicines in the Semi-Arid Region of Northeastern Brazil", *Evidence-Based Complementary and Alternative Medicine*, vol. 2011, Article ID 179876, 15 pages, 2011. <https://doi.org/10.1093/ecam/nep134>
45. Rosenberg, H. M. (1999). Quality of death rates by race and Hispanic-origin: a summary of current research, 1999 (Vol. 128). National Ctr for Health Statistics.
46. Saeed.A., W. Y. W., Asmaa Azeem, Muhammad Siddique, Zikra Faiz. (2021). Use of Social Media Apps for Cyberstalking during Pandemic COVID-19 Lockdown: A Cross-Sectional Survey at University Students of Lahore. *Multicultural Education*, 7(11), 334-343. <https://doi.org/10.5281/zenodo.5705998>
47. Sajjad, Q., Siddique, M., & Tufail, I. (2022). Teacher-Student Interaction towards Chemistry at Secondary Level. *Global Educational Studies Review*, VII(II), 167-174. [https://doi.org/10.31703/gesr.2022\(VII-II\).16](https://doi.org/10.31703/gesr.2022(VII-II).16)
48. Siddique, A., Taseer, N. A., & Siddique, M. (2020). Teachers' Emotional Intelligence and Teaching Effectiveness: A Correlational Study. *Ilkogretim Online*, 19(3), 2411-2417. <https://doi.org/10.17051/ilkonline.2020.03.735399>
49. Siddique, M., Tatlah, I. A., Ali, M. S., Awan, T. H., & Nadeem, H. A. (2021). Effect of Total Quality Management on Students' Performance in Chemistry at Secondary Level in Pakistan. *Multicultural Education*, 7(11), 592-602. <https://doi.org/10.5281/zenodo.5828015>

50. Siddique, M., Ali, M. S., Nasir, N., Awan, T. H., & Siddique, A. (2021). Resilience and Self-Efficacy: A Correlational Study of 10th Grade Chemistry Students in Pakistan. *Multicultural Education*, 7(9), 210-222. <https://doi.org/10.5281/zenodo.4912254>
51. Staff, M.-W. (2004). Merriam-Webster's collegiate dictionary. Merriam-Webster.
52. Suleman, Q., Aslam, H. D., Hussain, I., & Shakir, M. (2012). Effects of Parental Socioeconomic Status on the Academic Achievement of Secondary School Students in District Karak (Pakistan). *International Journal of Human Resource Studies*, 2(4), 14. <http://doi.org/10.5296/ijhrs.v2i4.2511>
53. Suleman, Q., & Hussain, I. (2014). Effects of classroom physical environment on the academic achievement scores of secondary school students in Kohat division, Pakistan. *International Journal of Learning & Development*, 4(1), 71-82. <http://doi.org/10.5296/ijld.v4i1.5174>
54. Taylor, A. (2009). Linking architecture and education: Sustainable design for learning environments. UNM Press.
55. Tsavga, J. (2011). The effect of environment on the academic performance of students in Tarka Local Government Area of Benue State. Unpublished PGDE Thesis, Makurdi: Benue State University.
56. Tufail, I., & Mahmood, M. K. (2020). Teaching methods preferred by school science teachers and students in their classroom. *PUPIL: International Journal of Teaching, Education and Learning*, 4(2), 332-347. <https://doi.org/10.20319/pijtel.2020.42.32347>
57. Van Steensel, R. (2006). Relations between socio-cultural factors, the home literacy environment and children's literacy development in the first years of primary education. *Journal of Research in Reading*, 29(4), 367-382. <https://doi.org/10.1111/j.1467-9817.2006.00301.x>
58. Wells, G., & Claxton, G. (Eds.). (2002). Learning for life in the 21st century: Sociocultural perspectives on the future of education. Blackwell Publishing. <https://doi.org/10.1002/9780470753545>
59. Wen-li, L. (2008). The Cross Factor to Restore the Environment of Bayinbulake Grassland is Balance of Grass and Livestocks. *Inner Mongolia Agricultural Science and Technology*, 4.