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RESEARCH PAPER

Teachers' Perceptions about School Infrastructure at the Elementary Level in Punjab

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ABSTRACT

The present study aimed to explore teachers' perceptions about school infrastructure at the elementary level in Punjab. The study was quantitative in nature and survey design was used to conduct the present study. Sample of the study was comprised of 282 female elementary school teachers from Punjab. Instrument of the study was adapted by the researcher. Reliability of the instrument was .94. It was found that school infrastructure plays a significant role in enhancing students' learning at elementary level. The provision of physical, academic, administrative facilities, teachers' methods of teaching and assessment system of school enhance quality of education at elementary level. Physical infrastructure including buildings, grounds, sufficient number of class rooms, computer labs, transport, school boundary wall, first aid facilities, furniture and apparatus along with essential equipment for education provides safe and conducive learning environment to the students. The academic facilities like provision of text books, planning co-curricular activities, technology support, guidance and counseling, sufficient funds also important for smooth functioning of the elementary school level. It is recommended that school should provide basic physical facilities, academic facilities, administrative facilities, innovative teaching methods and effective monitoring and assessment system for provision of quality education at elementary level.

KEYWORDS Academic Facilities, Administrative Facilities, Assessment System, Physical Facilities

Introduction

Education is considered as the root of scientific, technological, and socio-economic development in the world (Amjad et al., 2021; Olufunke, 2012). Education deals with knowledge that is recognizably worthwhile and capable of achieving a voluntary and committed response, and it leads to new mental perspectives (Ahumuza, 2020). In both developed and developing nations, education is a very crucial process through which an individual's life chances are determined. Beyond the economic significance, education is viewed as a good in itself and, indeed, a basic human right with regard to the lower level of education (World Bank, 2015). Education is a universal investment in human beings and a valuable resource for the economic benefit of the country (Amjad et al., 2023).

Education, as a sector, plays an important role in the social and economic development of a country. In essence, developing knowledge and skills important for national and economic development should be accessible to as many citizens as possible. To this effect, it is the responsibility of the education sector to provide it to those who may need it. A better education was focused on providing access to education as a value leading to higher lifetime awareness in skills and knowledge for a more robust national economic

growth (EFA Global Monitoring Report, 2005). The history of nations is replete with changes and revolutions in the field of education (Farooqi et al., 2015). It also helps to develop the four dimensions of life like physical, spiritual (moral), mental and social facilities. It plays a very vital role for the development, prosperity and progress of any country or nation. Education is very important for social and economic development of any state (Amjad et al., 2022).

Every state is trying to educate and provide quality education to its citizens for human development and skilled manpower (Amjad et al., 2020). No nation can achieve its aims without quality education, and quality education depends upon the quality of teachers and school infrastructure (Amjad et al. 2022a; Nepal, 2016). For quality education and to improve education productivity, well-equipped learning institutions with sufficient facilities are much needed (Okoli, 2015). The success of any work depends upon infrastructure. Infrastructure affects the economic development of a country in many ways (Josephat, 2019).

School infrastructure plays an important role on students learning. School infrastructure in Pakistan is not up to mark because Pakistan is still a developing country and has very limited resources. It is a big hurdle for quality education and effective learning. Despite many concerning programs/activities initiated by the government in place, learners' performances have continued to be a challenge, thus requiring scholarly attention; hence the urgency of this study. Therefore, the researcher designed the present study to explore teachers' perceptions about school infrastructure at elementary level in Punjab.

Literature Review

The educational infrastructure is one of the elements which helps the development of the delivery of educational program (Lanham, 2010; Tabbasam et al., 2023). Educational infrastructure plays significant role in providing quality education. No nation can achieve its aims without quality education (Assoumpta & Andala, 2020). Education does not exist in a vacuum but in an environment structured of physical facilities and material resources that are used in teaching and learning. The specifications given for the establishment, management and material resources in public schools are stipulated in the laws and policies that govern the county's education system. The goal of infrastructure system in schools seeks to increase school attendance of students, enhance staff motivation and to improve academic achievement of students (Alimi, 2004; Amjad et al., 2023b). Quality education depends on the quality of teachers and school infrastructure. School infrastructure like buildings, equipment, furniture and the site contribute very much to a learning environment and quality education (Ayeni & Adelabu, 2012). School infrastructure is the school buildings which consist of permanent structures which include libraries, class rooms and laboratories.

Modern school has sufficient physical facilities to provide quality education. The schools have become axis of modernization in modern days. Nepal (2016) stated that school of modern age has become the model of easiness. Public and private secondary schools provide physical facilities and have good infrastructure (Josephat, 2019). Physical infrastructure means the physical facilities like buildings, grounds, reading rooms, dining halls, assembly halls, furniture and apparatus along with essential equipment for education. The relationship between school facilities like electricity, toilet and playground has received much attention to provide education. School facilities, parent's education, pupil-teacher ratio and proper training are the significant determinants of school infrastructure (Suryadarma et al., 2004). There is a link between school architecture and its

users (students and teachers). Research has shown that a well-planned school with clean and safe learning environment is important for academic achievement (Balogun, 2016).

Infrastructure plays a key role in creating a healthy and a favorable environment for a child's growth. Schools should provide such environment that not only assures effective learning but also pays proper attention to the physical and mental growth of the children. Good school environment positively affects the performance of a school. Overcrowded and stressful environment can affect the learning of a child. On the other hand, airy, well decorated class rooms, libraries, playgrounds, science labs, IT labs, friendly environment and attractive school building can affect the learning of a child positively (Amjad et al., 2023a; Yangambi, 2023). Class room environment can be very important to the wellbeing of children and have a significant impact upon attention spans of learners (Nepal, 2016). Spacious buildings, well equipped labs, playgrounds, libraries, halls, games equipment, clean drinking water, proper sanitation facilities and assembly area are some essentials that every school should provide to its students. Comfortable temperature and small size of class rooms increases teachers' effectiveness and provide opportunities for learners to seek much attention and participation in discussions decrease the problems of discipline and perform better than the learners in schools with substandard buildings in California (Yangambi, 2023). Substandard and above standard buildings make very much difference between the achievements of learners (Josephat, 2019).

Building structure of a school has its own importance for learning process in a school (Farooqi et al., 2015). The school building should be attractive. It should have comfortable sitting, proper lighting and useful facilities like playground, library, classrooms, washrooms, clean drinking water, writing boards and computer labs etc. A calm and quiet atmosphere is very necessary for teaching and learning. It is keenly observed that safe, healthy, comfortable, protective and friendly environment can be very effective for learning and motivate the students (Yangambi, 2023). A good environment reinforces the efforts of the teachers to provide a good stimulus for effective learning. Learning atmosphere is considered as a third teacher and it creates interest in the process of learning and teaching (Saeed & Wain, 2011).

Safe healthy and child friendly environment is part of good school infrastructure. All public and private schools should provide attractive and protective atmosphere at primary and elementary level. The impact of environment and atmosphere affects a child from the very first day of his birth and it also work as a teacher for him (Hussain, 2003). The atmosphere and environment work as a teacher but it also has the meanings that environment has no limits in itself (Bruce, 2006). Well decorated class rooms, swings, play grounds, A.V. aids, and different kinds of incentives attract the learners at primary and elementary level. The learners of elementary levels are teen agers and very keen and curious to explore everything. Their intrinsic to know about anything can be developed by providing facilities like science lab, IT lab and library. They can be also motivated by using activity-based learning (Nabi et al., 2019). School infrastructure can be very helpful to enhance enrolment at elementary level. It can also play very effective role on student's motivation towards learning by providing quality education at elementary level (Yangambi, 2023).

Good and suitable physical conditions of class rooms can motivate the students intrinsically (Hammer, 2007). The infrastructure of the school refers to the building, equipment, furniture which provides quality education and a positive learning environment for students (Josephat, 2019). A large school facility is more than a building kept in the best possible condition through routine maintenance, regular inspections, and other well-done preventative work. Rather, school facilities must create an ideal

environment for academic success based on research findings that indicate that there is a direct impact on student learning (Yangambi, 2023). School Education Department in Punjab has been trying to improve the teaching learning process by improving the physical environment of schools along with innovation in teaching. Education department has established computer labs, well equipped science labs, attractive class rooms, libraries and playgrounds for teachers and students. It is based on the concept of blended learning and multimodalities learning (combination of teaching strategies) to engage the learners in the 21st century.

The concept of teaching through the use of physical presence of teachers supported by videos, audios, animations, simulations, presentations and Multimedia was not commonly used in the past but it is attaining attractions and popularity in the present even for training of teachers and in service teachers so that they may be able to improve the cognitive skills of learners of 21st century who are being affected and attracted by social media in the global village (Amjad et al., 2022b; Dresser, 2013).

The government of Punjab is trying to provide a suitable and child friendly environment in schools to enhance quality education. Government of Punjab took many steps to uplift the quality of education and provide missing facilities in public schools to provide education for all according to the constitution of Pakistan (Andrabi et al., 2012). According to the 18thamendment (Raza, 2011), to provide free and quality education to every child is the responsibility of the provincial government. Punjab, with the largest share of population in Pakistan at provincial level, is playing its vital role in implementing the education policy for achieving the targets. Quality education for all is the main goal and mission of the Chief Minister of Punjab.

The main purpose of school is teaching and learning. School facilities should be used to deliver quality education. These facilities give students such kind of atmosphere where they can achieve their goals. There is a strong relationship between students' scores, achievements and school facilities (Kabwe, 2018). Every physical facility like fresh water, electricity, toilets have its own effects on students learning and performance. Size of class room and furniture has also its importance. A good school environment where good working facilities present is a catalyst for effective learning and teaching in a school where there is enough space for the teachers and students to walk around the class room during learning and delivering lesson will promote much attention of students and acquire good performance.

School facilities should be used to delivered quality education. Infrastructure services are very necessary for quality education and health of society (Agénor & Moreno-Dodson, 2006). It has been observed that excellent school infrastructure provides such environment which affects the behavior and mood of students. Science laboratories, IT labs, play grounds, size and shape of class rooms and basic facilities like clean and fresh water, boundary wall, electricity and toilets are the basic needs of a school. The provision of clean drinking water is very important for the health of learners. Neat and clean water keeps learners healthy and active. Moreover, drinking water should be stored in cover tanks. The availability of clean and neat toilets is also very necessary as well as play grounds are needed for co-curricular and recreational activities. Well-equipped science laboratories are the necessary and important element of school in this modern era.

A suitable atmosphere should be provided to set up a school. It should be far away from the noise of the crowed city, traffic and polluted atmosphere. An elementary school is required five acres of land for school building (Okoli, 2015). There must be plenty of space with shady trees around the school. There should be a quiet and calm atmosphere

for learning. The building of school should be attractive and purposeful (Mark, 2014). It should have basic facilities like adequate lighting, clean and neat drinking water, toilets, boundary wall, comfortable seating, library, science laboratory, IT lab, playground, class rooms, multipurpose rooms, chalk and bulletin boards etc.

Technological facilities are also very essential and an important part of school infrastructure. The world has become a global village and a lot of innovations, inventions are available as modern technology in every field to improve the way of life. These facilities are also very helpful to solve all kind of problems and a big reason of progress of developed countries. Modern technology is considered very important for all fields of life and is also considered very vital and back bone of effective schooling. Modern technology is comprised of television, radio, films, multimedia, projector and many other devices. Modern instructional technology is now being used for the welfare, betterment and improvement of formal and non-formal education. Information technology labs, ICT labs, laptops, iPods, learning support centers, fitness center and gymnasium are the technology facilities which should be provided by a good school (Kabwe, 2018).

School infrastructure plays a vital role on student's learning and motivation. Good school infrastructure is very helpful to enhance enrolment and reduce retention. It has been observed that good school infrastructure attracts students' attention and they participate in learning activities willingly. School infrastructure promotes the performance of curricular and co-curricular activities provided by the school. As a result, the achievements and results of this kind of school are much better. On the other hand, a school with poor infrastructure has many problems like drop out, retention, lack of interest of students in learning and poor results. School infrastructure affects the teen age students at elementary level very much (Kabwe, 2018). At this level, students are very active and curious about everything. Friendly environment, splendid and charming school building, play grounds attracts the learners at elementary very much. Good school infrastructure proves very helpful to increase enrolment, affective learning and achievement at elementary level than the school which has a poor infrastructure (Nepal, 2016).

Material and Methods

The present study aimed to explore teachers' perception about improvement of school infrastructure at elementary level in Punjab. The study was quantitative in nature and survey design was used to conduct the present study. Population of the study was all elementary school teachers in Punjab. Sample of the study was comprised of 282 female teachers from Punjab. Convenient sampling technique was used to select the study sample. An instrument of the study was adapted by the researcher. Reliability of the instrument was .944. Data were collected by the researcher personally. Data were analysed by using descriptive and inferential statistics. Results of the study are given below.

Results and Discussion

Table 1
Teachers' Perceptions about School Infrastructure at Elementary Level in Punjab

Variables	N	Mean		Std. Deviation	Variance
	Statistic	Statistic	Std. Error	Statistic	Statistic
Physical Facilities	282	49.2518	.54033	9.07367	82.331
Academic Facilities	282	20.2979	.35554	5.97056	35.648
Administrative Facilities	282	11.7518	.12512	2.10120	4.415
Methods of Teaching	282	21.4894	.16481	2.76768	7.660
Assessment and Evaluation	282	16.6135	.15699	2.63623	6.950

Teachers' perceptions about effect of improvement of infrastructure on students' learning at elementary level were explored by using descriptive statistics. Findings of the study revealed that elementary school teachers perceive the improvement of elementary school infrastructure in terms of different dimensions (physical facilities, academic facilities, administrative facilities, methods of teaching and assessment & evaluation system). Findings of the study revealed that the mean score of physical facilities (*M*=49.25, *SD*=.54) was higher as compared to the other facilities. The mean scores of academic facilities (*M*=20.29, *SD*=.35), administrative facilities (*M*=11.75, *SD*=.12), methods of teaching (*M*=21.48, *SD*=.16) and assessment & evaluation system (*M*=16, *SD*=.15) shows the different levels of teachers' perceptions about improvement of infrastructure to improve students' learning at elementary level.

Table 2
Comparison of Elementary School Teachers' Perceptions about School Infrastructure at Elementary Level in Punjab based on their Academic Qualification

Variables	Sum of Squares	df	Mean Square	F	Sig.
Physical Facilities	675.93	2	337.96	4.198	.016
	22459.18	279	80.49		
	23135.12	281			
Academic Facilities	451.17	2	225.58	6.580	.002
	9565.80	279	34.28		
	10016.97	281			
Administrative Facilities	89.57	2	44.78	10.856	.000
	1151.05	279	4.12		
	1240.62	281			
Methods of Teaching	28.83	2	14.41	1.894	.152
	2123.63	279	7.61		
	2152.46	281			
Assessment and Evaluation	53.89	2	26.94	3.959	.020
	1898.97	279	6.80		
	1952.86	281			

A difference of elementary school teachers' perceptions about effect of improvement of infrastructure on students' learning based on their academic qualification was found by applying one-way ANOVA. A significance difference of elementary school teachers' perceptions was found regarding (physical facilities, academic facilities, administrative facilities and assessment & evaluation) at p≤.05 level of significance. On the other hand, there was no significant difference of elementary school teachers' perceptions was found regarding methods of teaching at p≤.05 level of significance.

Table 3
Comparison of Elementary School Teachers' Perceptions about School Infrastructure at Elementary Level in Punjab based on their Academic Qualification

Variables	Sum of Squares	df	Mean Square	F	Sig.
Improvement of Infrastructure	4354.10	2	2177.05	6.758	.001
	89871.80	279	322.12		
	94225.91	281			

A difference of elementary school teachers' perceptions about effect of improvement of infrastructure on students' learning based on their academic qualification was found by applying one-way ANOVA. A significance difference of elementary school teachers' perceptions about improvement of infrastructure was found at p≤.05 level of significance.

Table 3 (a)
Differences of Elementary School Teachers' Perceptions based on their Teaching Experience within Groups Post hoc (LSD)

(I) Academic Qualification	(J) Academic Qualification	Mean Difference (I-J)	Std. Error	Sig.
BA	MA	-10.07251*	3.02221	.001
	MPhil	-1.99524	4.87602	.683
MA	BA	10.07251*	3.02221	.001
	MPhil	8.07727	4.19169	.055
MPhil	BA	1.99524	4.87602	.683
	MA	-8.07727	4.19169	.055

A post hoc (LSD) was applied to find out difference of elementary school teachers' perceptions about improvement of infrastructure in elementary schools within groups. Findings above indicated that a significant difference of teachers having qualification BA was found with the teachers having qualification MA and no significant difference was found with the teachers having qualification MPhil. On the other teachers having qualification MA was not significantly different with the teachers having qualification MPhil and MA.

Table 4
Comparison of Elementary School Teachers' Perceptions about School Infrastructure at Elementary Level in Punjab based on their Teaching Experience

Variables	Sum of Squares	df	Mean Square	F	Sig.
Physical Facilities	1413.07	5	282.61	3.591	.004
	21722.04	276	78.70		
	23135.12	281			
Academic Facilities	379.73	5	75.94	2.175	.057
	9637.24	276	34.91		
	10016.97	281			
Administrative Facilities	24.30	5	4.86	1.103	.359
	1216.31	276	4.40		
	1240.62	281			
Methods of Teaching	25.61	5	5.12	.665	.650
	2126.85	276	7.70		
	2152.46	281			
Assessment and Evaluation	27.04	5	5.41	.775	.568
	1925.82	276	6.97		
	1952.86	281			

A difference of elementary school teachers' perceptions about effect of improvement of infrastructure on students' learning based on their teaching experience was found by applying one-way ANOVA. A no significance difference of elementary school teachers' perceptions was found regarding (academic facilities, administrative facilities, methods of teaching and assessment & evaluation) at p≤.05 level of significance.

On the other hand, there was significant difference of elementary school teachers' perceptions was found regarding physical infrastructure at p≤.05 level of significance.

Table 5
Comparison of Elementary School Teachers' Perceptions about School Infrastructure at Elementary Level in Punjab based on their Teaching Experience

Variables	Sum of Squares	df	Mean Square	F	Sig.
Improvement of Infrastructure	3972.38	5	794.47	2.430	.035
	90253.52	276	327.00		
	94225.91	281			

A difference of elementary school teachers' perceptions about effect of improvement of infrastructure on students' learning based on their teaching experience was calculated by using one-way ANOVA. Findings of the study indicated that there was no significant difference of elementary school teachers' perceptions about effect of improvement of infrastructure on students' learning based on their teaching experience at p≤.05 level of significance.

Table 5 (a)
Differences of Elementary School Teachers' Perceptions based on their Teaching Experience within Groups Post hoc (LSD)

(I) Teaching Experience	(J) Teaching Experience	Mean Difference (I-J)	Std. Error	Sig.
1-5 years	6-10 years	-1.33071	2.59674	.609
	11-15 years	2.57815	3.76988	.495
	16-20 years	-11.21579*	5.10912	.029
	21-25 years	7.62865	6.37469	.232
	Above 25 years	-10.08246*	5.10912	.049
6-10 years	1-5 years	1.33071	2.59674	.609
	11-15 years	3.90886	3.51420	.267
	16-20 years	-9.88507*	4.92349	.046
	21-25 years	8.95937	6.22690	.151
	Above 25 years	-8.75174	4.92349	.077
11-15 years	1-5 years	-2.57815	3.76988	.495
	6-10 years	-3.90886	3.51420	.267
	16-20 years	-13.79394*	5.63113	.015
	21-25 years	5.05051	6.80024	.458
	Above 25 years	-12.66061*	5.63113	.025
16-20 years	1-5 years	11.21579*	5.10912	.029
	6-10 years	9.88507*	4.92349	.046
	11-15 years	13.79394*	5.63113	.015
	21-25 years	18.84444*	7.62459	.014
	Above 25 years	1.13333	6.60309	.864
21-25 years	1-5 years	-7.62865	6.37469	.232
	6-10 years	-8.95937	6.22690	.151
	11-15 years	-5.05051	6.80024	.458
	16-20 years	-18.84444*	7.62459	.014
	Above 25 years	-17.71111*	7.62459	.021
Above 25 years	1-5 years	10.08246*	5.10912	.049

	6-10 years	8.75174	4.92349	.077
	11-15 years	12.66061*	5.63113	.025
	16-20 years	-1.13333	6.60309	.864
	21-25 years	17.71111*	7.62459	.021

A post hoc (LSD) was applied to find out difference of elementary school teachers' perceptions based on their teaching experience within groups. Findings of the study revealed that teachers having teaching experience of 1-5 years have different opinion with the teachers having experience of 16-20 years and above 25 years of experience. On the other hand, teachers having 6-10 years of experience have a difference of opinion with the teachers having 16-20 years of teaching experience, whereas teachers with 11-15 years of experience have differences of opinion with the teachers having 16-20 and above 25 years of experience. Teachers with teaching experience of 16-20 have different opinion with the teachers having 1-5, 6-10, 11-15, and 21-25 years of experience. However, teachers with 21-25 years of experience have no difference of opinion with the teachers having 16-20 years of experience and teachers who have above 25 years of experience have different opinion with the teachers having 11-15 and 21-25 years of experience.

Table 6
Comparison of Elementary School Teachers' Perceptions of School Infrastructure at the Elementary Level in Punjab based on their Age

Variables	Sum of Squares	df	Mean Square	F	Sig.
Physical Facilities	486.87	4	121.71	1.489	.206
	22648.25	277	81.76		
	23135.12	281			
Academic Facilities	363.79	4	90.94	2.610	.036
	9653.18	277	34.84		
	10016.97	281			
Administrative Facilities	36.71	4	9.17	2.112	.080
	1203.91	277	4.34		
	1240.62	281			
Methods of Teaching	16.58	4	4.14	.538	.708
	2135.87	277	7.71		
	2152.46	281			
Assessment and Evaluation	19.22	4	4.80	.689	.600
	1933.64	277	6.98		
	1952.86	281			

A difference of elementary school teachers' perceptions about effect of improvement of infrastructure on students' learning based on their age was found by applying one-way ANOVA. A no significance difference of elementary school teachers' perceptions was found regarding (physical facilities, administrative facilities, methods of teaching and assessment & evaluation) at p≤.05 level of significance. On the other hand there was significant difference of elementary school teachers' perceptions was found regarding academic facilities at p≤.05 level of significance.

Table 7
Comparison of Elementary School Teachers' Perceptions about School Infrastructure at Elementary Level in Punjab based on their Age

Variables	Sum of Squares	df	Mean Square	F	Sig.
Improvement of Infrastructure	1795.96	4	448.99	1.346	.253
	92429.94	277	333.68		
	94225.91	281			

A difference of elementary school teachers' perceptions about effect of improvement of infrastructure on students' learning based on their age was calculated by using one-way ANOVA. Findings of the study indicated that there was no significant difference of elementary school teachers' perceptions about effect of improvement of infrastructure on students' learning based on their age at $p \leq .05$ level of significance.

Discussion

Quality education helps students to develop all of their skills and attributes to achieve their goals as human beings and members of the society. Quality education is a process where qualified teachers used child centered teaching approaches in class rooms and facilitate the learner to reduce disparities (UNICEF, 2000). The present study aimed to explore teachers' perceptions about school infrastructure at elementary school level in Punjab. Findings of the study revealed that school infrastructure plays a significant role in enhancing students' learning at elementary level. The provision of physical, academic, administrative facilities, teachers' methods of teaching and assessment system of school enhance quality of education at elementary level. Physical infrastructure like buildings, grounds, reading rooms, dining halls, assembly halls, furniture and apparatus along with essential equipment for education provides safe and conducive learning environment to the students.

Arshad (2019) conducted research in Pakistan at The University of Lahore. This study was entitled as school Physical infrastructure like buildings, grounds, sufficient number of class rooms, computer labs, transport, school boundary wall, first aid facilities, furniture and apparatus along with essential equipment for education provides safe and conducive learning environment to the students. These school facilities have positive effect and significant influence on students learning and achievement. The administrative facilities also important at school level for smooth functioning of the school. Nabi et al. (2019) investigated the role of school facilities in academic performance of students in Pakistan. The findings of the study are that the role of basic school facilities like water, sanitation, playgrounds, size of class rooms, library, laboratory and electricity is very vital for the academic performance, motivation and learning of students.

Moreover, quality education depends on the quality of teachers and school assessment system. Schools should provide such environment that not only assures effective learning but also pays proper attention to the physical and mental growth of the students. It has been revealed by the studies and researches conducted to finger out of infrastructure suggest that students in schools with poor infrastructure show poor performance as compared to the students studying in such schools where infrastructure and facilities are much better. School facilities can affect learning process and help the students to improve their overall academic performance (Owoeye, 2011).

Conclusion

The present study aimed to explore teachers' perceptions about school infrastructure at elementary school level in Punjab. Findings of the study revealed that school infrastructure plays a significant role in enhancing students' learning at elementary level. The provision of physical, academic, administrative facilities, teachers' methods of teaching and assessment system of school enhance quality of education at elementary level. Physical infrastructure like buildings, grounds, sufficient number of class rooms, computer labs, transport, school boundary wall, first aid facilities, furniture and apparatus along with essential equipment for education provides safe and conducive learning environment to the students. The academic facilities like provision of text books, planning co-curricular activities, technology support, guidance and counseling, sufficient funds also important for smooth functioning of the elementary school level. Moreover, quality education depends on the teachers' use of A.V. aids, students' character building, teaching methods, teaching experience and effective school monitoring and assessment system. Schools should provide such environment that not only assures effective learning but also pays proper attention to the physical and mental growth of the students.

Recommendations

Following recommendations were formed in present study.

1. It is very necessary to improve infrastructure for quality education. Quality of teaching by training teachers, modern teaching aids, modern tools and methodologies like smart class rooms and digitals course content should be taken for quality education.

2. It is recommended to improve attendance rate and level of education by provision of basic facilities in schools

3. The schools having highest enrollment might be provided additional classrooms. This will help the schools to meet their needs according to their attendance and to overcome to the problem of overcrowded class rooms.

4. It is recommended to establish laboratories with all necessary equipment in the elementary school to provide quality education.

5. A comparative study on public and private institution might be conducted to compare the provision of basic facilities in order to improve quality education at elementary level.

References

Agénor, P. R., & Moreno-Dodson, B. (2006). *Public infrastructure and growth: New channels and policy implications* (Vol. 4064). World Bank Publications.

Ahumuza, A. (2020). *Assessing the common defects in shallow building foundations in Uganda* (Doctoral dissertation). Makerere University.

Alimi, O. S. (2004). Appraisal of the Adequacy of Available School Plant for Primary Education In Ayedaade Local Government Area of Osun State. *Educational Thought, 45*(l), 64-69.

Amjad, A. I., Habib, M., & Saeed, M. (2022). Effect of brain-based learning on students' mathematics performance at elementary level. *Pakistan Journal of Social Research*, *4*(03), 38-51

Amjad, A. I., Habib, M., Tabbasam, U., Alvi, G. F., Taseer, N. A., & Noreen, I. (2023b). The Impact of Brain-Based Learning on Students' Intrinsic Motivation to Learn and Perform in Mathematics: A Neuroscientific Study in School Psychology. *International Electronic Journal of Elementary Education*, *16*(1), 111-122

Amjad, A. I., Iqbal, H., & Manzar-Abbas, S. S. (2020). Teachers' awareness about inclusive education in Punjab: A descriptive enquiry. *Journal of Inclusive Education*, *4*(1), 161-178.

Amjad, A. I., Ishaque, M. M., & Rafique, M. U. (2023a). Unravelling the Psychological Underpinnings of Classroom Dynamics: A Study on Teacher-Student Interaction. *Journal of Development and Social Sciences*, *4*(3), 239-250.

Amjad, A. I., Malik, M. A., & Tabassum, U. (2021). Ready to accept? Investigating Pakistani school teachers' readiness for inclusive education. *Turkish Online Journal of Qualitative Inquiry*, *12*(9).7442-7456.

Amjad, A. I., Tabbasam, U., & Abbas, N. (2022b). The Effect of Brain-Based Learning on Students' Self-Efficacy to Learn and Perform Mathematics: Implication of Neuroscience into School Psychology. *Pakistan Languages and Humanities Review*, *6*(3), 683-695.

Amjad, A. I., Tabbasam, U., & Ara, N. (2022a). Neuroscientific Study on the Effect of Brain-Based Learning on Students' Intrinsic Motivation to Learn Mathematics. *Annals of Human and Social Sciences*, *3*(2), 728-742

Amjad, A. I., Tabbasam, U., & Habib, M. H. (2023). Uncovering Teachers' Concerns and Multi-Dimensional Attitude Towards Inclusive Education: Who's Included and Who's Excluded. *Journal of Contemporary Trends and Issues in Education*, *3*(1), 1-22.

Andrabi, T., Khan, S., Khan, Y., & Naseer, M. F. (2012). *Learning in public schools (Working Paper No. 12/0390)*. International Growth Centre.

Arshad, M. (2019). *A study of organizational structure, students' achievement and physical facilities at public and Punjab education foundation partner schools in Punjab*. Department of Education: The University of Lahore.

Assoumpta, U. I., & Andala, H. O. (2020). Relationship between School Infrastructure and Students' Academic Performance in Twelve Years Basic Education in Rwanda. *Journal of Education, 3*(1), 60-75.

Ayeni, A. J., & Adelabu, M. A. (2012). Improving learning infrastructure and environment for sustainable quality assurance practice in secondary schools in Ondo State, South-West, Nigeria. *International Journal of Research Studies in Education*, *1*(1), 61-68.

Balogun, K. (2016). *The need for effective facility management in schools in Nigeria*. Department of Education Foundations and Administrations, Faculty of Education, Imo State University Oweri, Nigeria.

Bruce, T. (2006). *Early childhood education: A guide for students*. Sage.

Dresser, R. (2013). Paradigm shift in education: Weaving social-emotional learning into language and literacy instruction. *Inquiry in Education, 4*(1), 2-22.

Farooqi, T. K., Farooqi, M. T., & Saleem, K. (2015). Provision of physical facilities: Comparison of public and private secondary schools in Punjab, Pakistan. *International Journal of AYER, 95*, 1134-2277.

Hammer, M. (2007). The process audit. *Harvard Business Review, 85*(4), 111-119.

Hussain, M. (2003). Role of environment in the development of personality of the child, Pakistan *Journal of Education, 20*(1), 73-74.

Josephat, M. M. (2019). *Assessment of the effect of educational infrastructure to students' academic performance in secondary schools in Tanzania: A case of bukoba municipality, Kagera Region* (Master Thesis). University of Tanzania.

Kabwe, J. M. (2018). *Exploration of strategies used and challenges encountered by administrators in the maintenance of conditions of infrastructure and equipment in public primary schools in Lusaka District, Zambia* (Master Thesis). The University of Zambia, Lusaka.

Lanham, R. A. (2010). *The electronic word: Democracy, technology, and the arts*. University of Chicago Press.

Mark, M. (2014). An exploration of gender participation patterns in science competitions. *Journal of Research in Science Teaching 32*(7), 735-748.

Nabi, M., Farooq, M., & Nazir, H. (2019). The role of school facilities in academic performance of students. *Pakistan Journal of Social Research*, *1*, 25-34.

Nepal, B. (2016). Relationship among school's infrastructure facilities, learning environment and student's outcome. *International Journal for Research in Social science and Humanities Research, 2*(5), 44-57.

Okoli. (2015). Quality of learning and learning Environment: Challenges for teaching and learning Kenya's public university. *Quality assurance in Education, 19*(3), 68-80.

Olufunke, B. T. (2012). Effect of availability and utilization of physics laboratory equipment on students' academic achievement in senior secondary school Physics. *World Journal of Education, 2*(5), 1-7

Raza, R. (2011). *18th amendment: Implementation Commission Report Unveiled*. The Express Tribune.

Saeed, M., & Wain, R. K. (2011). Status of missing physical facilities in government schools of Punjab. *Journal of Research and Reflections In Education, 5*(2), 105-127.

Suryadarma, D., Suryahadi, A., Sumarto, S., & Rogers, H. (2004). The determinants of student performance in Indonesian public primary schools: The role of teachers and schools. *Washington, DC and Jakarta, Indonesia: World Bank and SMERU*.

Tabbasam, U., Amjad, A. I., Ahmed, T., & Qiang, X. (2023). Comparison of Self-Strength, Seeking Help and Happiness between Pakistani and Chinese Adolescents: A Positive Psychology Inquiry. *International Journal of Mental Health Promotion*, *25*(3).389-402.

UNICEF. (2000). *Defining Quality in Education*. United Nations Children's Fund.

World Bank. (2015). *Priorities and Strategies for Education: A World Bank Review*. World Bank.

Yangambi, M. (2023). Impact of school infrastructures on students learning and performance: Case of three public schools in a developing country. *Creative Education, 14*, 788-809