

Comparative Study of Administrators' Supervisory Skills and Teachers' Pedagogical Skills Towards Quality Education in Public and Punjab Education Foundation Funded Schools at Secondary Level

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Abstract

This research analyzed and compared administrators' supervisory and teachers' pedagogical skills concerning quality education in Public and Punjab Education Foundation Funded Schools at the secondary level, in line with the Vision of Sustainable Development Goal 4 (SDG-4) by 2025 (Minimum Standards for Quality Education in Pakistan, 2016). The research employed a descriptive method and adopted a quantitative approach. For this study, 248 head teachers were selected from public schools and 126 from Punjab Education Foundation Funded Schools via simple random sampling, making a total sample of 374 respondents. Data were collected using a five-response Likert scale and analyzed with SPSS, including mean, standard deviation, t-test, and f-test to assess the difference between administrators' supervisory and teachers' pedagogical skills towards quality education in both school types. The study concluded that administrators in public secondary schools exhibited better academic and professional qualifications and that both administrators' supervision and teachers' pedagogical skills were superior in public schools. Additionally, public schools were more aligned with the Minimum Quality Standards for Schooling to meet the vision of Sustainable Development Goal 4 (SDG-4) by 2025 for quality education compared to Punjab

Education Foundation Funded Schools. It is recommended that the heads of Punjab Education Foundation-funded schools enhance their supervisory skills, while teachers should improve their pedagogical skills to align with the vision of Sustainable Development Goal 4 (SDG-4) by 2025.

Keywords: quality education, teachers' pedagogical skills, administrators' supervisory skills, sustainable development goal 4 (sdg-4) 2025.

Introduction

In the aftermath of the 18th Constitutional Amendment, a consensus has been developed to have the Minimum Standards for Quality Education in the country, aiming to ensure access to quality education indiscriminately. The National Action Plan (2013) focuses on the provision of missing facilities and enrolment of out-of-school children ensuring that Vision 2025 is merged with Sustainable Development Goal-4(SDG-4) (Minimum Standards for Quality Education in Pakistan, 2016). This was the impetus behind the creation of the National Action Plan (NAP) for Educational Improvement. The vision of Sustainable Development Goal 4 (SDG-4) 2025 was realized in this plan by filling in the gaps in infrastructure and enhancing the quality of education to increase school enrollment and reduce the number of children out of school (Khushik, 2021). Goal 4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, reducing the disparities and inequities in education, both in terms of access and quality. It recognizes the need to provide quality education for all, especially vulnerable populations, including poor children, children living in rural areas, persons with disabilities, indigenous people, and refugee children (SDG Goal 4: Quality Education - UNICEF DATA, 2021). The plan includes a seven-point benchmark for educational quality. Student standards, curriculum standards, textbook and educational material standards, educator standards, assessment criteria, early learning standards, and school environment standards are all examples (Yousaf et al., 2020). Their goal is to bring the quality of education in Pakistan up to international standards (Khushik & Diemer, 2020).

Quality of education at secondary level is essential, as it provides a foundation for higher education, after which children move on to medical, arts, engineering, or technical education (Hussain, 2021). While quality is important at all stages of education, secondary level schooling serves as the backbone of

the educational process. Therefore, ensuring quality education at this level is of paramount importance. Secondary education acts as a bridge, leading students to higher education (Khalloková, 2021). A secondary school certificate in Pakistan is considered the first certificate that holds the record's date of birth which is considered authentic and final in every institution in Pakistan. Moreover, this certificate is also a basis for acquiring employment. Therefore, secondary education is of utmost importance, and the quality of education is crucial at this level (Ezeaku, 2021).

Teachers have a vital role in quality education and professionally qualified teachers can play a significant role in enhancing the quality of education. Apart from professional education, the experience and personality of the teachers also play a huge role because students emulate teachers, and see him /her as their role model and ideal (Musokhonovna, 2021). If the teacher has a lot of ability, then the children will become creative thinkers like Plato's student Aristotle; Aristotle opposed some of his teacher's ideas and gave his new modern ideas which led to critical thinking (Nguyen, 2020).

Additionally, a capable administration significantly impacts provision of quality education (Day et al., 2020). If the school's leader has much experience and education, he/she can see the bigger picture because the principal is accountable for academic standards of a school (Ephrahem & Bhoke-Africanus, 2021). A skilled and dynamic principal oversees all classroom activities and ensures that all students receive an excellent education (Saeed et al., 2021). When the academic bar is set high, the headmaster/mistress raises it to the level to meet international standards. Thus competent administrators are crucial for a successful school (Botirova, 2021).

This research analyzed and compared the administrators' supervisory and teachers' pedagogical skills toward quality education in Public and Punjab Education Foundation Funded Schools at the secondary level to meet the Vision of Sustainable Development Goal 4 (SDG-4) 2025. There are currently two major secondary school sectors in Punjab that are awarding secondary school certificates to students; the Punjab School Education Department runs one, and the second school sector is Punjab Education Foundation Funded Schools. The Punjab Education Foundation manages schools funded by the Punjab Education Foundation, while the Punjab government governs schools run by the Punjab School Education Department, said public schools. The two organizations have vastly different budgets. The findings

of this study will help stakeholders and policymakers and will be helpful for administrators and teachers in providing quality education at the secondary school level.

Objectives of the Study

Some of the main objectives of this research were as follows:

Evaluate and analyze the public and Punjab Education Foundation Funded schools' administrative and pedagogical skills for quality education. Indicators for this include the minimum standards of quality education approved by the National Integration and the Interprovincial Education Ministers' Conference (IPEMC) to meet the vision of Sustainable Development Goal 4 (SDG-4) 2025.

Research Questions

Is there a significant difference between heads' and teachers' administrative and pedagogical skills toward quality education to meet the vision of Sustainable Development Goal 4 (SDG-4) 2025?

Literature Review

The government of Punjab, Pakistan, provides most of the funding for the secondary education system in Punjab. This includes the Punjab School Education, Punjab Education Foundation Funded Schools, Danish Authority, Federally Established Schools, Cantonment and Garrison School System, and other similar institutions. Punjab has two types of schools: one run by the Punjab School Education Department (SED) and the other run by the Punjab Education Foundation (Kalim & Bibi, 2022).

The Government of Punjab operates the Punjab School Education Department, a sizable educational organization which follows a curriculum devised by the Punjab Curriculum and Textbook Board. The Board is not only required to hire highly qualified teachers on merit, but is also required to publish high-caliber textbooks and distribute them at no cost to schools because the government covers all costs involved. The Government of Punjab is also responsible for the teachers' salaries, upkeep, and supplies of the schools' physical facilities. The secondary schools in Punjab, which the Punjab School Education Department oversees, take

their exams through the Board of Intermediate and Secondary Education.

In Punjab, there are nine different boards and maintaining the standard of education is the board's responsibility. The government in Punjab bases its policies on the research and findings conducted at the public secondary schools for further improvement of these educational institutions (Ahmad et al., 2021).

The school system supported by the Punjab Education Foundation has grown to become the state's second-largest secondary education system because it also funds some private secondary schools which need help (Raza et al., 2022). Based on the number of students enrolled in their secondary schools, this foundation provides each principal with 1100 Pakistani rupees. The Punjab Curriculum and Text Book Board's publications are also free. However, this organization is not responsible for the school's infrastructure (Klasra & Huma, 2020). Each year, the Foundation administers a Quality Assurance Test (QAT) and uses the test results to allocate funds to schools on a per-pupil basis (Raza et al., 2022). The Board of Intermediate and Secondary Education, set up by the Punjab School Education Department, is where students from these nine different types of schools take annual exams. The Board of Intermediate and Secondary Education Board awards degrees to students who graduate from these institutions, and it also awards certificates to those who graduate from schools under the purview of the Punjab Education School Department (Arshad et al., 2020; Faiz et al., 2022; Munawar et al., 2022).

The physical setting of a school is an essential component for good education because it is essential that a school is equipped with all of the necessary items. The first step toward achieving quality education is to create a comfortable and welcoming atmosphere at school for children. It is essential to provide for the child's fundamental requirements, which include access to clean drinking water, a lavatory, a well-ventilated room, adequate lighting, temperature, humidity control, and protection from excessive noise. A sufficient number of rooms must be available (Akramov & Muzaffar, 2021). To ensure the highest level of safety for the students and faculty, the perimeter wall around the school needs accurate measurements. The school should have a proper façade, with proper height level for the walls, and installation of closed-circuit television cameras throughout the building. The institutions of learning ought to provide adequate janitorial services as well (Akramov & Muzaffar, 2021).

Children should be able to play cricket and football, so the school's playground should have sufficient space for both sports. Additionally, the school should have a canteen that serves reasonably priced, high-quality food and other refreshments, and the prices should be fair (Hussain, 2021). Also, the school should have a photocopying machine, bookbinders, and a stationary shop. The number of students and classes at the school should determine the appropriate staffing level at the institution. The school should make adequate provisions for students to participate in physical education classes. Moreover, it ought to provide its students with a modern library, science laboratory, and computer lab; the computer lab ought to be connected to the internet. The school should also have an examination hall, and there ought to be a conference hall as well. An important necessity for schools is to have first aid kits and supplies readily available. These factors contribute to improving educational quality (Gindo et al., 2020).

Activities outside of the classroom are an essential component of a well-rounded education (Corbin et al., 2020). Thus children's physical education teacher can also serve as their coach for any sports they participate in. The school grounds should be extensive enough for children to play cricket and football, and the school should provide those opportunities (Brusseau, 2020). The school ought to be outfitted with comprehensive sporting goods and provide a space specifically for using those goods. In addition, children should be brought to historical sites, and educational programming should be carried out. According to Aristotle, a healthy body is said to have a healthy mind, as such, children's physical education should be adequately managed. There should be Girl Guides, Boy Scout clubs, and sports competitions with other schools (Hussain, 2021).

The atmosphere of a school is an essential component for high-quality education. It is essential for there to be a positive social and educational environment within the climate of the school. If the atmosphere at the school is positive, it will have a beneficial effect on the children's academic performance as well as the development of the students. The atmosphere at school should be welcoming for children, and all instances of physical conflict should be eliminated (Mesfin, 2022). Students must get along well with one another and with their teachers for exuding warm and welcoming vibes throughout the institution (Pascoe et al., 2020). In addition, the school should organize a schedule of meetings with the student's parents and present a report of the student's performance to the parents during these

meetings (Jabeen et al., 2022). In schools, the use of physical punishment should be phased out and replaced with an emphasis on the use of positive reinforcement. Well-behaved students should be praised, while unruly students should be counseled. These things significantly impact the quality of education (Ahmed et al., 2020; Kausar & Shoukat, 2020).

Literature Gap

The past literature pertains to the quality indicators and standards of quality education. These indicators, like the quality of infrastructure, quality of the curriculum, quality of the school's atmosphere, quality of teaching staff, and quality of administration, rely on some sub-factors, like schools' buildings, playgrounds, co-curricular activities, audio-visual aids, well-furnished labs and modern library and other facilities are necessary for quality education (Amir et al., 2022; Hussain et al., 2022; Hussain., 2021). However, it has not been elaborated upon as to the extent to which these indicators are followed to meet the Vision of Sustainable Development Goal 4 (SDG-4) 2025, and past researchers also neglected the internal quality factors like administrators' supervisory skills and teachers' pedagogical skills towards quality education at the secondary level (Hoang et al., 2020). From the above literature, researchers found that administrators' supervisory and teachers' pedagogical skills play a vital role in quality education, but these two were not much focused in studies. Researchers found this gap and decided to study administrators' supervisory skills and teachers' pedagogical skills toward quality education to meet the Vision of Sustainable Development Goal 4 (SDG-4) 2025 in Pakistan.

Research Methodology

This study uses a quantitative survey analysis technique for data collection and interpretation. The researchers asked heads of institutions to rate their level of agreement, disapproval, and neutrality on a 5-point Likert scale. Hussain (2019) submitted a thesis to the Higher Education Commission (HEC) entitled "quality education of Education in Public and Danish Schools at the secondary level," from which the survey questions were adapted. The questionnaire was validated by a panel of experts from five public and five schools supported by the Punjab Education Foundation. The experts checked the accuracy and proper context of the tool, and, after pilot testing the tool on a sample of 20 heads of both systems' schools, the reliability was checked which was reliability was .92. The quality of

the teaching staff and the quality of the administration were both measured. Fifty specific questions were asked about quality standards; data were analyzed using descriptive statistics; differences and relations were checked through inferential statistical tests; a t-test was used to compare the means difference of both sides of school sectors. The significance level of the t-test was set at 0.05, and Levene's Test for Equality of Variances (f-test) was used to check the mean differences; the significance level of the f-test was set at 0.005.

Population and Sampling of the Study

The targeted population comprised public, and the Punjab Education Foundation funded schools in Punjab. Due to time and finance shortage, the research population was delimited to selecting two Punjab districts. There were 98 male and 90 female government secondary schools and 41 male and 41 female Punjab Education Foundation Funded Schools in District Bahawalpur. There were 52 male and 44 female government secondary schools and 22 male and 22 female Punjab Education Foundation Funded Schools in District Dera Ghazi Khan. In this way, the total population became 284 public and 126 Punjab Education Foundation Funded Schools heads. Then the sample was selected randomly according to Krejcie and Morgan (1970).

Table 1

The Population of the Study

Districts	Public Schools			PEF Schools		
	Male	Female	Total	Male	Female	Total
District Bahawalpur	98	90	188	41	41	82
District Dera Ghazi Khan	52	44	96	22	22	44
Total	150	134	284	63	63	126
Heads of Schools	150	134	284	63	63	126

Table 2*Sample of the Study*

Districts	Public Schools			PEF Schools			
	School Gender	Male	Female	Total	Male	Female	Total
District Bahawalpur		80	80	160	41	41	82
District Dera Ghazi Khan		44	44	88	22	22	44
Total		124	124	248	63	63	126
Heads of Schools		124	124	248	63	63	126

The study sample comprised 248 public school heads and 126 Punjab Education Foundation Funded Schools heads. The sample was selected through Krejcie and Morgan's (1970) proportionate sampling method.

Instrument

The research was a survey, using a quantitative approach. Researchers adopted a 5-point Likert scale to collect the data. The tool was constructed by Hussain (2019), who submitted a thesis to the Higher Education Commission (HEC) entitled "quality education of Education in Public and Danish Schools at the Secondary Level," from which the survey questions were adapted, each education standard was checked through 25 concrete questions, total 50 questions were constructed to check the heads academic and professional qualification, experience, supervisory strength, management, and effective administration towards curriculum, schools climate, school infrastructure, school atmosphere, co-curricular activities, and teaching performance, as it for teachers performance checked by teachers academic and professional qualifications, teaching experience, use of ICT and AV-aids, pedagogical skills and students satisfaction. The questionnaire was validated by experts penal of five public and five schools supported by the Punjab Education Foundation; experts checked the accuracy and proper context of the tool. After pilot testing the tool on a sample of 20 heads of both systems schools, the reliability was checked; its reliability was .92, which was excellent.

Analyses of Data

Using a Likert scale with five options to collect the data and 50 questions carefully designed to test whether or not the quality education standards were being followed. Mean and standard deviation were calculated through (Statistical

Package for the Social Sciences) to describe the data, after that, in ANOVA F-test applied to check the association and difference of factors. T-test was used to examine the differences and connection of elements between both types of schools implementing Minimum Quality Standards for Schooling to meet the vision of Sustainable Development Goal 4 (SDG-4) 2025 for quality education.

Findings and Results

Each quality standard was checked through 25 questions, such as Quality of Management (QM) and Quality of Teaching Staff (QTS). Questions were about heads' administrative experiences, academic and professional qualifications, their management of schools' progress and ranking, conflict management, schools infrastructure improvement, teachers' progress, better results of students, parents' satisfaction, school climate, school culture, community satisfaction, harassment conflict management, media propaganda, and solutions, implementation of the quality standard to meet the vision of Sustainable Development Goal 4 (SDG-4) 2025, quality of teaching staff, quality of infrastructure, quality of school climate, quality of the curriculum, quality of co-curricular activities and quality of assessment.

The Quality of Teaching Staff (QTS) was also investigated in depth through 25 questions, like teachers' academic and professional qualifications, teachers' teaching experience, pedagogical skills, in-service training, teachers' satisfaction, job security, salary, syllabus completion on time, use of ICT, teachers' punctuality, teachers' ability towards hidden curriculum, moral stability, teachers' morale, teachers' feedback to students.

After the data were interpreted using descriptive statistics, the difference was determined using the mean value, and the F-test and independent t-test were used to verify the significance of the observed differences.

Table 3

Analyses of Quality Factors (Descriptive)

Factors	School Type	N	Mean	Std. Deviation	Std. Error Mean
QM	Public Schools	248	4.9585	.16294	.01035
	Punjab Education Foundation Funded Schools	126	2.9708	.41258	.03676
QTS	Public Schools	248	4.9074	.15346	.00974
	Punjab Education Foundation Funded Schools	126	3.4508	.42520	.03788

Table 3 is about quality factor descriptive analyses; 25 questions were computed in each quality factor, 25 questions checked the quality of management (QM), the mean value of public schools was (4.9585), and the mean value of Punjab Education Foundation-funded schools (2.9708), the mean of public schools was higher and better than that of Punjab Education Foundation Funded Schools. Similarly, the mean value of public schools (4.9074) and the mean value of Punjab Education Foundation Funded schools were (3.4508) in terms of the Quality of Teaching Staff (QTS); the mean value of public schools was much higher than Punjab Education Foundation Funded Schools.

Table 4

Analyses of Quality Factors (Inferential)

Factors	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
QM	Equal variances assumed	181.981	.000	66.421	372	.000	1.98775	.02993
	Equal variances are not assumed.			52.057	145.135	.000	1.98775	.03818
QTS	Equal variances assumed	122.710	.000	48.174	372	.000	1.45663	.03024
	Equal variances are not assumed.			37.241	141.778	.000	1.45663	.03911

Table 4 indicates the inferential statistical status; this F-test and t-test were used, and the significance level was checked.

In Quality of Management (QM), F-test was calculated as a significant (.000) p-value < 0.005, and the t-test also was calculated as a (.000) significant p-value < 0.05. For the Quality of Teaching Staff (QTS), F-test was calculated as a significant (.000) p-value < 0.005. and the t-test also was calculated as (.000) significant p-value < 0.05.

Discussion

Public secondary schools were found to have superior administrative quality compared to schools supported by the Punjab Education Foundation. It was found that public school principals had high levels of education and experience as compared to Punjab Education Foundation Schools. Public school administrators were able to handle significant issues, and classes were tailored to the interests of both students and teachers. However, no such effort was made in schools supported by the Punjab Education Foundation. It was concluded that in government schools, a monitoring cell regularly checked the school's progress and that public school principals consulted with teachers before making important decisions; however, no such observation was found in schools funded by the Punjab Education Foundation. Ezeaku et al. (2021), Ephrahem & Bhoke-Africanus, (2021), Hussain, (2021) and Khalloкова (2021) have similar findings in their research studies.

In addition, findings showed that secondary schools funded by the Punjab Education Foundation had lower-quality teaching staff than their public school counterparts. Public school teachers were found to have high levels of education and experience. In contrast, the qualification of school teachers and principals in schools funded by the Punjab Education Foundation was low. Schools funded by the Punjab Education Foundation did not have much job security for their teachers. Teachers in public schools were found to check their student's homework daily and provide feedback, while teachers in schools funded by the Punjab Education Foundation were lacking in this regard. Teachers' use of instructional materials was tracked in public schools but not those supported by the Punjab Education Foundation. Teachers in public schools were found to have a firm grasp of their subject matter, were punctual, satisfied with their jobs and had high moral values whereas, Punjab Education Foundation teachers were less happy with their jobs.

The researchers also observed these findings in studies by Botirova (2021), Hussain (2021), Musokhonovna (2021), and Nguyen (2020).

Furthermore, research conducted by Ezeaku et al. (2021) revealed that management quality was better in public secondary schools. A study by Parveen et al. (2021) also corroborated with results of the current study regarding public secondary schools' efforts in good management were remarkable. The results of a study by Ngole and Mkulu (2021) also stated that in quality education, the role of administration plays a vital role in schools. Yet another study's results, conducted by researchers Ngole and Mkulu (2021) showed that the quality of teaching staff contributes vastly to the teaching and learning process, as such, the quality of education is highly related with the quality of school teachers. Philip (2020) also states that in public schools, quality of teacher hired and motivation towards teaching play an essential role in enhancing the quality of education.

Akpomudjere (2020) emphasized that the environment and atmosphere of the school play an essential role in the quality of education that is provided in public schools. Therefore, the quality of the educational experience is directly related to the school's climate and physical facilities. Ingersoll (2020), highlighted that the quality of an educational institution is directly proportional to the quality of its teaching staff. According to the findings of a study conducted by Baumsteiger et al. (2022), it was found that the atmosphere and environment of public secondary schools are directly related to the quality of the education that students receive there. A meaningful connection was seen between the culture of the school and the caliber of the education received. In their study, Llorent et al. (2021) stated that school climate and school atmosphere play an essential role in the development of students' social and emotional competencies in public secondary schools and that by maintaining a positive school climate, instances of harassment and bullying can be successfully minimized. Jessiman et al. (2022) investigated whether or not a healthy school culture has a significant impact on the mental health of students and whether or not it improves the quality of education in secondary schools and, findings indicated that both were necessary for students' wellbeing. Bekomson et al. (2020) found that extracurricular activities had a significant impact on student's mental health and that it was quality education was necessary in higher secondary schools that the government of Nigeria runs. In addition, the researchers found that students who participated in extracurricular activities had higher levels

of self-efficacy. According to the findings of a study conducted by Sohaib et al. (2022), extracurricular activities had a significantly stronger positive correlation with students' psychological well-being, making them an essential component of high-quality educational experiences. Abizada et al. (2020) also explored the role of extracurricular activities in students' academic achievement and found that it was the key to quality education at the secondary school level. In other words, extracurricular activities are the crucial for improving the quality of education at the secondary school level. Thus research indicates that extracurricular activities are beneficial to the overall quality of the educational experience.

Conclusion

It is concluded that the administration quality was better in public schools in Punjab than in Punjab Education Foundation-funded schools because public schools' principals and headmistresses have more academic, professional, and supervisory skills. Moreover, they have better administrative experiences, and are well-versed managing schools' human resource management (HRM) and material resources. Also, the teachers working in public schools had high academic and professional qualifications and pedagogical skills, and they had more teaching experience than teachers working under Punjab Education Foundation Funded Schools. Overall, the supervisory skills of principals were found to be better in public schools, and teachers' pedagogical skills were also found in public secondary schools governed by the government of Punjab under the Schools Education Department (SED). It was concluded that schools working under the government of Punjab (SED) follow more quality education standards stated by the school's education department to meet the vision of Sustainable Development Goal 4 (SDG-4) 2025.

Limitations of the Study and Direction for Future Research

This research was limited to secondary-level schools; as such, future researchers could research public and Punjab Education Foundation-funded schools at the primary level. This research can also be conducted at the elementary school level. The current study was limited to public secondary and Punjab Education Foundation-funded schools. Quality education standards for schooling can also be checked in private secondary schools and secondary schools run by Danish Authority. Moreover, only two quality standards were checked in this research; others are pending further study. Due to a lack of time and budget, this research

was limited to two districts; Researchers can check the quality standards issued by the Punjab School Education Department by doing this research in other districts of Punjab besides Bahawalpur and Dera Ghazi Khan.

Recommendations

Based on the findings and discussion, following are some recommendations:

1. The Punjab Education Foundation-funded schools should improve the quality of management, monitoring, and command; Heads of institutes should increase their academic and professional qualifications to enhance their supervisory skills.
2. In Punjab Education Foundation Funded schools, better qualified teachers should be recruited, and in-service training should be conducted toward developing pedagogical skills.
3. Punjab Education Foundation-funded schools should implement a strict check and balance system and increase heads and teachers' salaries.

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