Effectiveness of Monitoring and Evaluation System in Improving Educational Facilities at Secondary School Level in Punjab (Pakistan)

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Abstract

The focus of this study is to analyze the effectiveness of monitoring and evaluation system in improving educational facilities at secondary school level in Punjab. The study employed a survey design to assess the effectiveness of the monitoring system in enhancing the missing facilities in secondary schools in Punjab. The population of the study consisted of both male and female principals, headteachers, SSTs, PSTs, MEAs, CEOs, DEOs, and DMOs of public secondary schools in Punjab. The study was limited to the secondary schools of the Punjab government. For sampling, districts of Punjab were chosen from three regions of Punjab: Rahim Yar Khan, Faisalabad, and Rawalpindi. The study was descriptive and quantitative, as well as qualitative (QUAN-qual). The researcher randomly selected a sample from urban and rural schools using stratified random sampling, resulting in a four hundred and twenty-nine-sample size. This study investigates the effectiveness of the monitoring and evaluation system in addressing missing facilities in secondary-level institutions. The study found that the government's monitoring system, although continuously updating the condition of basic facilities, does not accurately reflect the actual needs of schools for better infrastructure. The lack of resources affects motivation to perform better, and improvements in the system are needed. Further research is recommended to further improve the system.

Keywords: Monitoring & Evaluation System, Missing Facilities, Secondary Level.

Introduction

Educational facilities are one of the most important variables that affect both the academic accomplishment of pupils and the quality of education provided by teachers in any given school. Missing facilities are assets that improve instruction and learning, giving the process meaning and direction. School plant is another term for school amenities. With the primary goal of facilitating an effective and meaningful teaching and learning experience, missing facilities can be defined as the entire school plant that administrators, teachers, and students' harness, allocate, and utilize for the smooth and efficient management of any educational institution (Zaidi et al 2023; Rasheed et al., 2024). This study focuses on the critical area of physical facilities maintenance strategies for

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secondary school sustainability: the researcher believes that the efforts of various stakeholders, such as government, World Bank, alumni associations, philanthropists, and donor agencies, may be in vain if facilities and human resources are not well maintained on a routine basis. Proper utilization and maintenance of existing missing facilities boost staff and student morale, thereby sustaining the secondary school system (Ullah et al., 2020; Yousaf et al., 2021).

This research aims to assess the effectiveness of monitoring and evaluation (M&E) systems in improving secondary school facilities in Punjab, Pakistan. With a growing population and increasing demands for quality education, the research aims to identify areas for improvement, address resource gaps, and enhance the learning environment for students. The research will provide valuable insights for policymakers, educational administrators, and stakeholders, helping them make strategic decisions and allocate resources effectively. The research is crucial in light of the Sustainable Development Goals and the global commitment to inclusive and quality education, contributing to ongoing discourse on educational development in Punjab and paving the way for evidence-based interventions (Lone et al., 2011; Zafar & Akhtar, 2023; Raseed et al., 2024). Educational facilities are essential buildings, fixtures, and equipment for public education programs, including classrooms, libraries, and facilities for physical education, fine arts, and specialized laboratories. Kuo and Taylor (2004) found that missing facilities significantly impact students' academic performance, suggesting government and school managers should prioritize providing teaching and learning facilities in public secondary schools. Kuo and Taylor (2004) also looked at how pupils' academic performance was affected by missing facilities. The results showed that one crucial element in achieving secondary education's objectives is still missing facilities. The study suggested that to support teaching and learning in public secondary schools, governments and school administrators should work to provide classrooms, chairs, tables, labs, computers, and ICT (Zafar & Ullah, 2020; Maitelo et al., 2024; Mohiman, et al., 2024).

Educational facilities are one of the most important variables that affect both the academic accomplishment of pupils and the quality of education provided by teachers in any given school. The different approaches or tactics used to maintain the functionality and quality of the current infrastructures are referred to as physical facilities maintenance strategies. In addition, it includes general scheduling data, necessary maintenance chores, and maintenance plans (Chowa et al., 2013; Mumtaz et al., 2024). One of the most crucial elements in any educational institution's success is adequate, strict, inclusive, and ongoing monitoring and supervision. The implementation of any educational program necessitates the creation of a mechanism that allows for the easy assessment of the program's progress. This type of mechanism is commonly known as the monitoring mechanism. Monitoring in the educational system includes supervision and inspection tasks (Bhutto et al., 2023). Educational monitoring is defined as "assumption of responsibility for bringing about specified results in the field of education" by the International Dictionary of Education. As stated in the Collins Dictionary, "to monitor or monitor means to be aware of the state of a system; to monitor or record the activity or performance.

"The continuous assessment of project implementation about agreed schedules and of use of inputs, infrastructure, and services by project beneficiaries" is the precise definition of monitoring given by Madani, (2019). "A form of evaluation called monitoring gathers specific data that is used to reform programs." (Zguir et al., 2021). Monitoring is a continuous process that employs the methodical gathering of information about designated indicators to give management and the primary stakeholders in a development intervention a sense of the degree of advancement and success concerning anticipated outcomes and advancement in the utilization of funds allotted (Achhnani & Amareliya, 2020, Mughal et al., 2023).

Monitoring is the systematic and intentional observation that gives managers or implementer's status updates on a program that is currently in operation (Atta et al., 2024; Bruinsma et al., 2021; Akram et al,. 2022). As stated by Carol Weiss, cited by Khan et al. (2017), monitoring is the process of carrying out an organised examination of the protocols used for any project or policy concerning a predetermined set of standards. Monitoring is an organised, continuous process of data collection and evaluation that gives an oversight of an ongoing interference with preliminary signs of success or inadequacy, and consequently in the attainment of results (UNAIDS, 2010; UNEP, 2010; Shafqat et al., 2024). Monitoring is the continuous activity of obtaining and assessing data to supervise continuous interference with the main recommendations for advancement (Hina et al., 2023; Shaheen et al., 2024). This study investigates the effectiveness of the monitoring and evaluation system in addressing missing facilities in secondary-level institutions. The study found that the government's monitoring system, although continuously updating the condition of basic facilities, does not accurately reflect the actual needs of schools for better infrastructure. The lack of resources affects motivation to perform better, and improvements in the system are needed. Further research is recommended to further improve the system. It aligns with Sustainable Development Goal 4 and aims to improve educational processes and outcomes while aligning with global education priorities.

Research Objectives

i. To analyze the M&E system influences on the quality and condition of educational facilities, including infrastructure, resources, and classroom environments.
ii. To identify and examine the key factors that contribute to the success or failure of the M&E system in improving educational facilities.

Research Questions

i. How does the Monitoring and Evaluation (M&E) system impact the quality of infrastructure in secondary schools?
ii. What are the key factors that determine the effectiveness of monitoring and evaluation (M&E) systems in enhancing the quality and performance of educational facilities?

Literature Review

Literature review is a written overview of major writings and other sources on a selected topic. Sources covered in the review may include scholarly journal articles, books, and websites. The purpose of literature review is to gain an understanding of the existing research and debates relevant to a particular research topic (Ahmad et al., 2024, p.302).

The pursuit of quality education is paramount for the socio-economic development of any region. In Punjab, Pakistan, as in many other parts of the world, ensuring the availability of adequate facilities in secondary schools is crucial for nurturing a conducive learning environment. Monitoring and evaluation (M&E) systems serve as indispensable tools for assessing the effectiveness of educational programs and initiatives, identifying areas for improvement, and ensuring accountability in resource allocation. This literature review aims to explore existing research and scholarly discourse on the effectiveness of M&E systems in enhancing missing facilities at the secondary school level in Punjab. Effective monitoring and evaluation play a pivotal role in school improvement. They lead to good leadership and accountability.

Proper record-keeping and reporting systems are essential. These systems help determine whether school resources are being utilized according to plan. Punjab's secondary education system

grapples with various challenges related to infrastructure, resources, and quality of facilities. Research by Naz et al. (2024) highlights deficiencies in infrastructure, including inadequate classroom space, lack of furniture, and limited access to essential amenities such as clean water and sanitation facilities. Moreover, Khan and colleagues note disparities in the distribution of resources across rural and urban areas, further exacerbating the challenges faced by secondary schools in Punjab.

Role of Monitoring and Evaluation in Educational Development

Monitoring and evaluation systems play a pivotal role in driving improvements in missing facilities by providing valuable insights into the strengths and weaknesses of existing infrastructure and resource allocation mechanisms. According to Arif, (2019), effective M&E systems enable educational policymakers and administrators to track progress, identify bottlenecks, and allocate resources efficiently to address infrastructure deficits in secondary schools. Moreover, M&E systems contribute to fostering a culture of accountability and transparency, thereby enhancing stakeholder engagement and participation in educational development efforts (World Bank, 2017).

Impact of Monitoring and Evaluation on improvement of Missing facilities

Several studies have documented the positive impact of M&E systems on enhancing facilities in secondary schools. Ahmad and Ali (2020) found that implementing robust M&E mechanisms led to improvements in infrastructure, including the construction of additional classrooms, provision of furniture, and installation of sanitation facilities in secondary schools across Punjab. Similarly, research by Rasool, (2016) highlighted the role of M&E in identifying resource gaps and mobilizing support for infrastructure development projects in underserved areas.

Resource Utilization and Identification of Needs

In addition to tracking progress and identifying areas for improvement, M&E systems play a crucial role in optimizing resource utilization and identifying the specific needs of secondary schools. Siddique, (2020) emphasize the importance of data-driven decision-making in resource allocation, where M&E data can inform policymakers and administrators about the most pressing needs, whether it's improving infrastructure, enhancing teacher training programs, or upgrading educational technology. Comprehensive assessments ensuring that, interventions are targeted and tailored to address specific challenges faced by secondary schools in Punjab.

Monitoring and evaluation systems play a crucial role in enhancing facilities in secondary schools in Punjab. By providing insights into infrastructure deficits, resource allocation patterns, and accountability mechanisms, M&E systems contribute to fostering a conducive learning environment for students. Moreover, these systems facilitate resource utilization optimization and the proactive identification of needs, ensuring that interventions are targeted and effective. However, challenges such as data quality issues and capacity constraints warrant attention to ensure the effectiveness of M&E systems in driving continuous improvements in missing facilities across Punjab's secondary schools.

Chaudhry (2017) further highlight the significance of proactive identification of needs through comprehensive assessments, ensuring that interventions are targeted and tailored to address specific challenges faced by secondary schools in Punjab.

Challenges and Opportunities

Despite the potential benefits of M&E systems, challenges persist in their implementation and effectiveness. Khan, (2021) identified issues such as data quality, capacity constraints, and

bureaucratic hurdles as key impediments to the successful implementation of M&E systems in Punjab's secondary schools. Moreover, the lack of standardized indicators and benchmarks for assessing facilities poses challenges in measuring progress and comparing performance across different schools and regions.

Challenges abound when schools endeavor to enhance their facilities, presenting hurdles that must be overcome to achieve their goals effectively. One of the most prevalent challenges is budget constraints, where limited financial resources hinder major infrastructure upgrades, potentially stalling progress. Furthermore, the ongoing maintenance and sustainability of facilities pose significant challenges, as ensuring consistent upkeep over time is essential to prevent deterioration and maintain effectiveness. Prioritization is another challenge schools face, as they must decide which facilities to upgrade first, balancing urgent needs with long-term goals. Community engagement presents its own set of challenges, as gaining support for facility improvements requires active involvement and cooperation from various stakeholders. Regulatory compliance is paramount, with schools needing to meet safety, health, and accessibility standards to avoid legal issues and ensure the well-being of students and staff. Logistics and timing pose challenges in coordinating construction or renovation efforts without disrupting classes or impacting teaching and learning. Aligning stakeholders, including teachers, administrators, and parents, is crucial, as misalignment can lead to conflicting priorities and hinder progress. Ensuring equity and inclusivity in facility provision presents another challenge, as disparities can affect student experiences and outcomes. Technological integration is essential but challenging, as incorporating technology into facilities effectively requires careful planning and investment. Finally, long-term planning is necessary for sustainable facility improvement, as a lack of foresight can result in ad hoc solutions that may not address underlying issues adequately. Addressing these challenges demands collaboration, strategic planning, and a steadfast commitment to creating safe, functional, and inspiring learning spaces for all students.

Improving missing facilities is crucial for fostering a conducive learning environment within schools. To achieve this, several practical steps can be taken. Firstly, infrastructure upgrades are essential, including regular inspections and maintenance of existing facilities such as classrooms, libraries, laboratories, and playgrounds, alongside modernization efforts integrating technology and sustainable materials. Safety measures like fire alarms and emergency exits should be prioritized. Classroom enhancements, like ergonomic seating and interactive whiteboards, along with proper lighting and ventilation, further enhance the learning experience. Libraries and resource centers should offer diverse collections, quiet reading spaces, and digital access to cater to varying student needs. Science and computer labs require state-of-the-art equipment, regular maintenance, and strict safety protocols. Adequate sports and recreation facilities, including well-maintained playgrounds, sports fields, and indoor halls, promote physical activities. Health and hygiene must be upheld with clean restrooms, handwashing stations, and health clinics on-site or through partnerships with nearby clinics. Green spaces and gardens contribute to environmental awareness and relaxation, while community engagement involving parents, local partnerships, and student involvement is essential for sustainable improvements. Ensuring accessibility and inclusivity through ramps, elevators, and gender-neutral restrooms is imperative. Finally, feedback mechanisms like student surveys and teacher input facilitate continuous improvement. Monitoring and evaluation play a crucial role in assessing the impact of these improvements, ensuring schools contribute to the holistic development of students and create a positive educational experience.

In conclusion, monitoring and evaluation systems play a crucial role in enhancing facilities in secondary schools in Punjab. By providing insights into infrastructure deficits, resource allocation

patterns, and accountability mechanisms, M&E systems contribute to fostering a conducive learning environment for students. However, challenges such as data quality issues and capacity constraints warrant attention to ensure the effectiveness of M&E systems in driving continuous improvements in missing facilities across Punjab's secondary schools.

Materials and Methods

This study was a survey with a descriptive goal. The following protocol was used to carry out the research. "The research methodology is the procedure which is used by the researchers to gather data for resolving problems of investigation" (Ahmad et al., 2022, p.524).

- Study Type: Survey and Descriptive.
- Methodology: Quantitative and Qualitative (QUAN-qual).
- Approach: Explanatory Sequential Technique.

The study's population included all of chief Executive Education Officers, District Monitoring Officers (DMO), District Education Officers, Head of Secondary School, and SST/PST Teachers, the population also included Monitoring and Evaluation Assistants (MEA) employed in Punjab. The study's population was comprised of five stakeholders. Information was taken from the Punjab government's official website.

The validity of the instrument/ scale was ensured through exploratory factor analysis (EFA) while the reliability was calculated through Cronbach's Alpha values. The information about population size was taken from the official website of the government of Punjab. The population of the study consisted of all the Head Teachers, SSTs, PST teachers in secondary schools, Monitoring and Evaluation Assistants (MEAs), District Education Officer (Secondary Education), Chief Executive Officer CEO, and District Monitoring Officer of 36 districts of Punjab.

Sampling and Sample

"The population is defined as a set of individuals, data, or items from which a statistical sample is taken" (Younus et al., 2023, p.3523). The study encompassed principals, teachers, students, and monitoring assistants affiliated with secondary schools in Punjab. Utilizing probability sampling methods, specifically multistage cluster sampling, the population was systematically chosen. The Punjab province was stratified into three geographical regions (clusters), and a representative sample was extracted from each cluster. In total, the study focused on secondary schools across three districts (Rahim Yar Khan, Faisalabad, and Rawalpindi) as the sample.

Sampling is a technique in which researcher selected and assigned the sample for the data collection to solve the stated problem (Cheema et al., 2023; Jalban et al., 2023). The sample of the study comprised; twenty (20) secondary school heads, twenty (20) MEAs from each district, three (3) SSTs and two (2) PSTs from each Secondary School, three (3) administrative officers CEO, DEO (Sec.) and DMO. The total sample comprised four hundred and twenty-nine (429).

Research instrument preform vital role in every research to collect accurate data from research participants to find the answer of research questions and solve the stated problem (Rao et al., 2023; Sadaf et al., 2024).

Research Instrument

The researcher developed an instrument/ scale for head teachers and teachers for data collection. The survey questionnaire for head teachers and teachers had the same items; the self-developed survey questionnaire consisted of demographics and closed-ended questions. Secondly, a survey questionnaire was developed for the MEAs. The data was collected through questionnaires. The

researcher herself collected the data. Data were collected personally and through mail. Mostly questionnaires were distributed and collected by the researcher herself. The mailing system was also used where it was needed and appropriate.

Reliability of Research Instruments

By estimating the internal consistency of items on data collected for pilot testing using SPSS version 24, the Cronbach's coefficient alpha formula was used to determine the reliability of the questionnaire. Cronbach's alpha was found to be 0.83. Therefore, not a single item was removed from the survey. For questionnaire A, A (used for teachers and the head teacher), the Cronbach alpha value was estimated as 0.889, and for questionnaire B (used for MEAs), the Cronbach alpha value was calculated as 0.788.

Data Collection

The participants' and the institution's prior consent was obtained. In each of the Punjabi districts that were chosen, the researcher personally gathered data from a predetermined sample of the research population. The researcher made a personal effort to collect the data, A great effort was made during the first stage in the first round 40% of data was collected then again in the second stage saw an even larger accomplishment as it resulted in the collection of 60%, and then in third and final round more than 70% data were collected. The mailing system was also used where it was needed and appropriate. Interviews from the DEO.SEC, CEO, and DMO were conducted by the researcher. This coordinated effort across zones exemplifies the tenacity and fortitude of individuals who are participating in the collection of these very important data points. As we go ahead, we must build upon these successes and handle any remaining issues to guarantee a complete and accurate dataset that can be used for analysis and decision-making. Frequency, mean value, percentage, and t-test statistical formulas were used to analyze the gathered data using the Statistical Package for Social Sciences (SPSS) version 24 software.

Analysis of Data

The researcher used SPSS version 22 to generate a data sheet and input data into it to achieve this goal. The data was analyzed using statistical tests and calculations such as the mean score, percentage, and standard deviation. To compare the gender responses and districts t-test and ANOVA were applied.

Data Analysis (Findings)

Table 1: The monitoring system has helped to identify schools that are lacking facilities, such as clean water, functional toilets, and electricity.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	f	0	0	0	6	2	8	4.25	0.46
		%	0	0	0	75.0	25.0	100		
2.	PST	f	0	1	2	38	7	48	4.06	0.52
		%	0	2.1	4.2	79.1	14.6	100		
3.	SST	f	26	11	27	141	51	256	3.70	1.14
		%	10.2	4.3	10.5	55.1	19.9	100		
Total		f	26	12	29	185	60	312	3.77	1.068
		%	8.3	3.8	9.3	59.3	19.2	100		

According to data, 59.3% of respondents agreed with the statement that the monitoring system has helped to identify schools that are lacking basic facilities, such as clean water, functional toilets, electricity, while 19.2% strongly agreed, 3.8% of respondents disagreed and 8.3% strongly disagreed whereas 9.3% of respondents were undecided with the statement. Collectively 78.5% (59.3%+19.2%), were agreed that the monitoring system has helped to identify schools that are lacking basic facilities, such as clean water, functional toilets, electricity, etc. A mean score of 3.77 and a standard deviation of 1.068 supported the statement.

Table 2: MEA records the building's condition to ensure student safety and identify any hazards, which are promptly addressed to prevent accidents.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	*f*	0	0	0	2	6	8	4.75	0.46
		%	0	0	0	25.0	75.0	100		
2.	PST	*f*	0	0	4	25	19	48	4.31	0.62
		%	0	0	8.3	52.1	39.6	100		
3.	SST	*f*	18	9	18	99	112	256	4.08	1.13
		%	7.0	3.5	7.0	38.7	43.8	100		
Total		*f*	18	9	22	126	137	312	4.14	1.062
		%	5.8	2.9	7.1	40.4	43.9	100		

According to data 40.4% of respondents agreed with the statement that MEA records the building's condition to ensure student safety and identify any hazards, which are promptly addressed to prevent accidents, While 43.9% strongly agreed, 2.9% respondents disagreed and 5.8% strongly disagreed whereas 7.1% of respondents were undecided with the statement. Collectively 84.3% (40.4%+43.9%) agreed that MEA records the building's condition to ensure student safety and identify any hazards, which are promptly addressed to prevent accidents. A mean score of 4.14 and a standard deviation of 1.062 supported the statement.

Table 3: The external monitoring and evaluation system is effective in identifying areas of improvement in schools.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	*f*	0	0	0	3	5	8	4.63	0.52
		%	0	0	0	37.5	62.5	100		
2.	PST	*f*	0	2	2	32	12	48	4.13	0.67
		%	0	4.2	4.2	66.6	25.0	100		
3.	SST	*f*	27	7	28	106	88	256	3.86	1.22
		%	10.5	2.7	10.9	41.4	34.4	100		
Total		*f*	27	9	30	141	105	312	3.92	1.151
		%	8.7	2.9	9.6	45.2	33.7	100		

According to data 45.2% of respondents agreed with the statement that the external monitoring and evaluation system is effective in identifying areas of improvement in schools, While 33.7% strongly agreed, 2.9% respondents disagreed and 8.7% strongly disagreed whereas 9.6% of respondents were undecided with the statement. Collectively 78.9% (45.2%+33.7%) agreed that the external monitoring and evaluation system is effective in identifying areas of improvement in schools. A mean score of 3.92 and a standard deviation of 1.151 supported the statement.

Table 4: The monitoring system has led to more informed decision-making by school administrators, as they now have access to data and feedback from the monitoring process.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	*f*	0	0	0	5	3	8	4.38	0.52
		%	0	0	0	62.5	37.5	100		
2.	PST	*f*	0	2	2	23	21	48	4.31	0.75
		%	0	4.2	4.2	47.9	43.7	100		
3.	SST	*f*	30	10	28	92	96	256	3.83	1.29
		%	11.71	3.90	10.9	35.93	37.5	100		
Total		*f*	30	12	30	120	120	312	3.92	1.224
		%	9.6	3.8	9.6	38.5	38.5	100		

According to data, 38.5% of respondents agreed with the statement that the monitoring system has led to more informed decision-making by school administrators, as they now have access to data and feedback from the monitoring process, while 38.5% strongly agreed, 3.8% of respondents disagreed and 9.6% strongly disagreed whereas 9.6% of respondents were undecided with the statement. Collectively 77% (38.5%+38.3%) agreed that the monitoring system has led to more informed decision-making by school administrators, as they now have access to data and feedback from the monitoring process. A mean score of 3.92 and a standard deviation of 1.224 supported the statement.

Table 5: The monitoring system has helped to identify schools that require infrastructure improvements, such as repairs to buildings or installation of new facilities.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	*f*	0	0	0	2	6	8	4.75	0.46
		%	0	0	0	25.0	75.0	100		
2.	PST	*f*	2	1	2	30	13	48	4.06	0.89
		%	4.2	2.1	4.2	62.5	27.0	100		
3.	SST	*f*	37	14	25	99	81	256	3.67	1.35
		%	14.5	5.5	9.8	38.7	31.6	100		
Total		*f*	39	15	27	131	100	312	3.76	1.294
		%	12.5	4.8	8.7	42.0	32.1	100		

Table 5 represented that the monitoring system has helped to identify schools that require infrastructure improvements, such as repairs to buildings or installation of new facilities. According to data, 42% of respondents agreed with the statement that the monitoring system has helped to identify schools that require infrastructure improvements, such as repairs to buildings or installation of new facilities, while 32.1% strongly agreed, 4.8% of respondents disagreed and 12.5% strongly disagreed whereas 8.7% of respondents were undecided with the statement. Collectively 74.1% (42.0%+32.1%) agreed that the monitoring system has helped to identify schools that require infrastructure improvements, such as repairs to buildings or installation of new facilities. A mean score of 3.79 and a standard deviation of 1.294 supported the statement.

Table 6: Schools that have been identified as lacking basic facilities through the monitoring process have received additional support and resources to address these issues, leading to improved functioning of these facilities.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/	*f*	0	0	0	5	3	8	4.38	0.52
	Head Teachers	%	0	0	0	62.5	37.5	100		
2.	PST	*f*	0	1	3	23	21	48	4.33	0.69
		%	0	2.1	6.3	47.9	43.7	100		
3.	SST	*f*	29	18	22	107	80	256	3.75	1.28
		%	11.3	7.0	8.6	41.8	31.3	100		
Total		*f*	29	19	25	135	104	312	3.85	1.215
		%	9.3	6.1	8.0	43.3	33.3	100		

According to data, 43.3% of respondents agreed with the statement that schools that have been identified as lacking basic facilities through the monitoring process have received additional support and resources to address these issues, leading to improved functioning of these facilities, while 33.3% were strongly agreed, 6.1% respondents disagreed and 9.3% strongly disagreed whereas 8% of respondents were undecided with the statement. Collectively 88.23% (43.3%+33.3%) agreed that Schools that have been identified as lacking basic facilities through the monitoring process have received additional support and resources to address these issues, leading to improved functioning of these facilities. A mean score of 3.85 and a standard deviation of 1.215 supported the statement.

Table 7: The monitoring system has led to increased transparency in the allocation of resources towards addressing missing facilities in schools, leading to more efficient and effective use of resources.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	*f*	0	0	0	1	7	8	4.88	0.35
		%	0	0	0	12.5	87.5	100		
2.	PST	*f*	0	1	4	28	15	48	4.19	0.67
		%	0	2.1	8.3	58.3	31.3	100		
3.	SST	*f*	34	9	21	112	80	256	3.76	1.29
		%	13.3	3.5	8.2	43.8	31.3	100		
Total		*f*	34	10	25	141	102	312	3.86	1.225
		%	10.9	3.2	8.0	45.2	32.7	100		

According to data 45.2% of respondents agreed with the statement that the monitoring system has led to increased transparency in the allocation of resources towards addressing missing facilities in schools, leading to more efficient and effective use of resources, while 32.7% strongly agreed, 3.2% respondents disagreed and 10.9% strongly disagreed whereas 8% of respondents were undecided with the statement. Collectively 77.7% (45.2%+32.7%) agreed that The monitoring system has led to increased transparency in the allocation of resources towards addressing missing facilities in schools, leading to more efficient and effective use of resources. A mean score of 3.86 and a standard deviation of 1.225 supported the statement.

Table 8: A monitoring framework can help to identify areas where additional resources are needed, such as teacher training or infrastructure improvements.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	*f*	0	0	0	3	5	8	4.63	052
		%	0	0	0	37.5	62.5	100		
2.	PST	*f*	0	0	5	17	26	48	4.44	0.68
		%	0	0	10.4	35.4	54.2	100		
3.	SST	*f*	14	14	19	85	124	256	4.13	1.12
		%	5.5	5.5	7.4	33.2	48.4	100		
Total		*f*	14	14	24	105	155	312	4.20	1.059
		%	4.5	4.5	7.7	33.7	49.7	100		

According to data 33.7% of respondents agreed with the statement that a monitoring framework can help to identify areas where additional resources are needed, such as teacher training or infrastructure improvements, while 49.7% strongly agreed, 4.5% respondents disagreed and 4.5% strongly disagreed whereas 7.7% of respondents were undecided with the statement. Collectively 83.4% (33.7%+49.7%) agreed that A monitoring framework can help to identify areas where

additional resources are needed, such as teacher training or infrastructure improvements. A mean score of 4.20 and a standard deviation of 1.059 supported the statement.

Table 9: Would providing additional resources to struggling schools identified through the monitoring process help to improve education quality?

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	*f*	0	0	0	1	7	8	4.88	0.35
		%	0	0	0	12.5	87.5	100		
2.	PST	*f*	0	1	1	36	10	48	4.15	0.55
		%	0	2.1	2.1	75.0	20.8	100		
3.	SST	*f*	28	9	24	127	68	256	3.77	1.19
		%	10.9	3.5	9.4	49.6	26.6	100		
Total		*f*	28	10	25	164	85	312	3.86	1.128
		%	9.0	3.2	8.0	52.6	27.2	100		

Table 9 represented that would providing additional resources to struggling schools identified through the monitoring process help to improve education quality? A mean score of 3.86 and a standard deviation of 1.128 supported the statement.

Table 10: The monitoring system has increased public awareness of the importance of basic facilities in schools, leading to increased pressure on governments and organizations to address these issues.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	*f*	0	0	0	6	2	8	4.25	0.46
		%	0	0	0	75.0	25.0	100		
2.	PST	*f*	0	1	3	28	16	48	4.23	0.66
		%	0	2.1	6.3	58.3	33.3	100		
3.	SST	*f*	28	16	22	105	85	256	3.79	1.27
		%	10.9	6.3	8.6	41.0	33.2	100		
Total		*f*	28	17	25	139	103	312	3.87	1.193
		%	9.0	5.4	8.0	44.6	33.0	100		

According to data 44.6% of respondents agreed with the statement that the monitoring system has increased public awareness of the importance of basic facilities in schools, leading to increased pressure on governments and organizations to address these issues, while 33% strongly agreed,5.4% respondents disagreed and 9% strongly disagreed whereas 8% of respondents were undecided with the statement. Collectively 77.6% (33%+44.6%) agreed that the monitoring system has increased public awareness of the importance of basic facilities in schools, leading to increased pressure on governments and organizations to address these issues. A mean score of 3.87 and a standard deviation of 1.193 supported the statement.

Table 11: The framework enables the government to identify areas of improvement and allocate resources more effectively.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	*f*	1	0	0	4	3	8	4.00	1.31
		%	12.5	0	0	50.0	37.5	100		
2.	PST	*f*	2	3	1	32	10	48	3.94	0.93
		%	4.2	6.3	2.1	66.67	20.83	100		
3.	SST	*f*	43	18	18	86	91	256	3.64	1.44
		%	16.8	7.0	7.0	33.6	35.5	100		
Total		*f*	46	21	19	122	104	312	3.70	1.380
		%	14.7	6.7	6.1	39.1	33.3	100		

According to data 39.1% of respondents agreed with the statement that the framework enables the government to identify areas of improvement and allocate resources more effectively, whereas 33.1% strongly agreed, 6.7% respondents disagreed and 14.7% strongly disagreed whereas 6.1% of respondents were undecided with the statement. Collectively 72.4% (33.3%+39.1%) agreed that The framework enables the government to identify areas of improvement and allocate resources more effectively. Mean score 3.70 and standard deviation 1.380 supported the statement.

Table 12: Through the monitoring framework, specific indicators and metrics can be established to measure the quality of education, including factors such as infrastructure, teacher's proficiency, learning outcomes, and student engagement.

No	Respondents	Stat	Responses						μ	σ
			SDA	DA	UD	A	SA	Total		
1.	Principal/ Head Teachers	*f*	0	0	0	1	7	8	4.88	0.35
		%	0	0	0	12.5	87.5	100		
2.	PST	*f*	0	0	2	32	14	48	4.25	0.53
		%	0	0	4.2	66.7	29.1	100		
3.	SST	*f*	35	12	12	88	109	256	3.87	1.37
		%	13.7	4.7	4.7	34.4	42.6	100		
Total		*f*	35	12	14	121	130	312	3.96	1.276
		%	11.2	3.8	4.5	38.8	41.7	100		

According to data, 38.8% of respondents agreed with the statement that Through the monitoring framework, specific indicators and metrics can be established to measure the quality of education, including factors such as infrastructure, teacher proficiency, learning outcomes, and student engagement. while 41.7% strongly agreed, 3.8% of respondents disagreed and 11.2% strongly disagreed whereas 4.5% of respondents were undecided with the statement. Collectively .80.5% (38.8%+41.7%) agreed that through the monitoring framework, specific indicators and metrics can be established to measure the quality of education, including factors such as infrastructure, teacher proficiency, learning outcomes, and student engagement. A mean score of 3.96 and a standard deviation of 1.227 supported the statement.

Conclusion

The external monitoring and evaluation system is effective in identifying and addressing areas of improvement within schools. The system has led to improved functioning of basic facilities, enhanced transparency in resource allocation, and improved education quality through targeted interventions. It has also contributed to public awareness, government responsiveness, and quality metrics. The findings highlight the importance of continued investment in monitoring mechanisms to sustain and enhance educational quality and infrastructure across the region.

Recommendations

The monitoring and evaluation system in Punjab's secondary schools needs improvements. Recommendations include enhancing monitoring protocols, providing training for administrators and teachers, fostering community engagement, improving transparency in resource allocation, developing targeted interventions, advocating for policy reforms, establishing continuous monitoring and evaluation, and facilitating knowledge sharing and collaboration among schools, institutions, and stakeholders. These measures will help identify missing facilities, improve infrastructure, and enhance the learning environment. The system should also focus on capacity building, fostering community involvement, and ensuring transparency in budgeting processes. The system should also be continuously monitored and evaluated to track progress and identify emerging challenges. By implementing these recommendations, stakeholders can work towards a more effective education system, promoting holistic student development.

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