ORIGINAL CONTRIBUTION

Analysis of Problems and Challenges of Secondary Schools Head Teachers of Conducting Punjab Examination Commission Exams in Pakistan

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Abstract— Exams are a necessary part of the education system and are conducted following established procedures. The Punjab Examination Commission (PEC) was established by the Government of Punjab to oversee compulsory exams for 5th and 8th graders in Punjab, Pakistan. While the PEC is the official examining authority, it doesn't have its own staff or infrastructure. Instead, district authorities typically organize the exams in secondary schools under PEC supervision. This study aimed to explore the difficulties that school administrators face when conducting PEC exams. The research focused on secondary school principals, who are responsible for ensuring educational quality and academic performance at the secondary level. The study used a descriptive, survey-based method, targeting head teachers, resident inspectors, superintendents, and teachers across the Khanewal, Lodhran, Multan, and Muzaffargarh districts in Punjab province. Data was gathered using a mixed-methods approach. Quantitative data came from a survey with 100 respondents, while qualitative insights were derived from semi-structured interviews with 12 participants. Both methods yielded consistent findings, highlighting several significant challenges, including staff shortages, limited space, disciplinary issues among students and staff, inadequate training opportunities, logistical problems, security and safety concerns, and conflicts between exam schedules and regular class timings at the secondary level. Despite these difficulties, respondents generally praised the transparency of PEC exams. To address the identified issues, several recommendations were proposed. These included consolidating exam centers within schools to address space limitations, adjusting exam timing to minimize disruption to regular classes, decentralizing the exam process, enhancing staff training, and increasing the honorarium for exam duties. The study concludes by advocating for further research aimed at enhancing the overall effectiveness of the exam system.

Index Terms— Punjab examination commission, Board of intermediate and secondary education, Head teachers, Secondary school's student, Elementary level examination
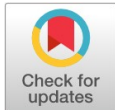
Introduction

Assessments are critical for evaluating the performance of students, instructors, and educational systems and are essential for gauging teaching outcomes and student learning (Arnaudova, Brunner, & Götze, 2022; Engin, 2020). The terms 'assessment,' 'examination,'

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'testing,' and 'evaluation' are often used interchangeably and refer to the process of measuring student learning outcomes during or after a course (NEP, 2017). Examinations not only evaluate student abilities but also assess the effectiveness of teaching methods and curriculum design, forming the basis for academic progression and systemic evaluation (Fuentealba, 2011; Khan, Haq, & Batool, 2023). In Pakistan, the National Education Policy 2009 stresses the importance of assessments in evaluating educational efficiency and individual performance. Many countries have established formal examination bodies, such as the State Examinations Commission in Ireland, the National Education Examinations Authority in China, and the Examinations Council of Zambia, to enhance the educational assessment process and contribute to the development of knowledge-based societies (Hong & Scardamalia, 2014). Similarly, Canada has the Education Quality and Accountability Office in Ontario, while Australia's educational system is supported by the Australian Curriculum, Assessment, and Reporting Authority (ACARA), established based on recommendations from the Royal Commission on Learning in 1995 and formalized through legislation in 1996 (Looney & Klenowski, 2008). In addition to international frameworks, many countries, like the United Kingdom, have their examination boards, such as OCR (Oxford, Cambridge, and RSA Examinations), which provide qualifications for educational institutions and professional workplaces. Standardized testing services, like the Educational Testing Service, administer exams such as the Graduate Record Examination (GRE) and the Test of English as a Foreign Language (TOEFL), playing a significant role in global educational assessments. In Pakistan, examination bodies include boards of intermediate and secondary education, as well as individual university examination systems. While recruitment exams, like those administered by the Punjab Public Service Commission, are well-established, there was historically no formal examination body at the elementary level (Hafeez, Hussain, Muhammad, & Hussain, 2023). The National Education Assessment System (NEAS), which focuses on grades IV to VIII, and the Provincial Education Assessment Centres (PEAC) work toward various objectives at different educational levels. The Punjab Examination Commission (PEC), established under the Punjab Examination Commission Act XI of 2010, primarily focuses on assessing students at the elementary level, especially in grades 5 and 8, and extends its mandate beyond exam administration to policy development, educational research, and improving teacher training, with the goal of standardizing examination practices across the province, thereby enhancing educational quality and integrity (Ahmed, Mahmood, Ghuman, & Wain, 2013). PEC conducts one of the largest examinations in Punjab each year, with approximately 2.2 million students participating in February (Malik, 2020). However, despite the significance of these examinations, the process faces various challenges. This study aims to explore the administrative, academic, and psychological challenges encountered by high school teachers and head teachers while conducting PEC exams, addressing issues such as time management, stress, and logistical difficulties affecting both students and educators across multiple grades. By examining these challenges, the research seeks to provide practical recommendations to improve the PEC examination process, support educational stakeholders (students, teachers, and parents), enhance teacher professionalism, and ensure the delivery of quality education throughout Punjab.

The research focuses on the lack of literature concerning the difficulties experienced by high school teachers and administrators when managing PEC exams in Punjab, Pakistan. It investigates the administrative and academic challenges faced during exam administration and also looks into the psychological impact on both students and educators. Through thorough research, the aim is to contribute to improving the examination system, providing better support for all involved and promoting educational excellence in Punjab. Furthermore, passing the PEC examination has been found to increase student confidence at the secondary level by maintaining education standards in grades 5 and 8 (Özcan, Çetinkaya, Göksun, & Kisbu-Sakarya, 2021). This study will be a valuable resource for a diverse group of educational stakeholders, including teachers, secondary school principals, District Education Officers (DEOs), district governments, university academics, and policymakers. By strengthening teacher capabilities and enhancing the examination system, the findings of this research will have a long-term impact on the quality of education across Punjab. In this way, this study addresses a significant gap in educational research by examining the challenges associated with PEC examinations and proposing solutions based on evidence. The gathered insights will empower scholars, educators, and policymakers to make informed decisions that enhance the fairness, effectiveness, and efficiency of examination systems, ultimately improving educational outcomes for students in Punjab and beyond.

Research questions

This study highlights the following research questions:

- What are the perceived challenges and difficulties faced by head teachers and school teachers in administering PEC examinations?
- What are the opinions of male and female supervisory staff, heads of secondary schools, and teachers regarding the challenges and difficulties in administering PEC examinations?
- How many challenges and issues do head teachers at secondary schools perceive in the administration of PEC examinations?
- How can the identified problems and challenges be effectively addressed to improve the administration of PEC examinations?

Literature Review

This literature review explores examination history in Pakistan's educational policies, secondary school head teachers' roles in PEC exams, and challenges, as Perveen and Aziz (2021) describe numerous initiatives, programs, and policies that have been introduced since 1947 to enhance exam systems in Pakistan. Still, these efforts have not effectively resulted in a positive impact on students' cognitive development, which is necessary for competing in the worldwide education system. It underlines education as a systematic process of acquiring knowledge, skills, habits, and values, with teacher quality crucial to educational excellence.

Education always plays an essential role in the development of society, providing manpower with the right kind of training and value-based education at all times to maintain values, attitudes, and motivations with a firm social base for facilitating realization. A pupil's achievement and failure depend upon the knowledge and attitude of the teachers in the classroom (Batool, Tahir, Ishfaq, Karamat, & Bibi, 2021). Teaching attitude is a key element at the elementary level in making the learning environment interesting for the students. Education is central to the economic development of the place by increasing the productivity, creativity, and entrepreneurship of its people while also speeding up the rate of technological progress through improvement in income distribution as a way of securing overall economic and social advancement. This, therefore, tends to present a barrier to knowledge-based society development if education has taken that primary role in the creation and dispersion of information, fostering better communication and engaging people in technological development (Spiel et al., 2018). The formal system sets curricula and uses exams to evaluate learning, structured under various headings:

What is an examination?

According to NEP (2017), assessment and examination are integral parts of education and training, as they determine to what extent the objectives of education have been achieved so far. Examinations affect decisions about grades, placement, advancement, policy, curriculum, instructional needs, and, in some cases, budgeting for an educational institution (p.129). The term "examination" includes scrutiny, inspection, inquiry, investigation, and measurement, defined as the test of an individual's knowledge applied in questionnaires and practical exercises. define examinations as the form of assessment used in the assessment of individual learning and the levels of skills through various means of knowledge and abilities. They serve as benchmarks and motivators for educational objectives (Batool & Akhter, 2012; L. Gay, 1985). They do play a dual role, assessing student learning and evaluating the effect of instruction, hence adding emphasis to these assignments as an effective tool for educational experience and outcomes (Shepard, 2000). The main purpose of examinations includes assessing student's achievement, the measurement of skills and knowledge, and teacher effectiveness, and guiding parents to ensure that students are motivated to work hard, make sure there are uniform standards, help in planning for careers, and ensure that there is fairness in competition for jobs. The curriculums of the institutions cover the national curriculum holistically and help in professional certification while simultaneously relating education to national work and ideology (Green & Batool, 2018). This multifaceted role includes supporting academic and professional development equitably, as well as labor market requirements. Examinations highly expose performance in education to learning acquisition of students, thus very important for their further advancement and motivation (Busato, Prins, Elshout, & Hamaker, 2000). It provides underpinning for predicting future educational outcomes and professional behaviors under the lining of the role of promotion of students to higher levels and the motivation of their studies, hence playing a key role in educational progress and assessment.

Functions and objectives of examination

The national educational policy 1992-2010 emphasizes a holistic examination system focusing on evaluating educational goal achievement, student content mastery, personality development, and fostering competitive and research skills (NEP, 2017). It also aims to use examinations for improvement strategies, awarding merits, and scholarship decisions. Additionally, examinations serve to measure student and teacher performance, motivate students, maintain standards, assist in career planning, ensure fair job competition, cover curricula, support professional certification, and align education with national ideology. This approach enhances educational and professional development while promoting equity and aligning with national objectives. Examinations are pivotal in assessing student performance and evaluating the effectiveness of teaching strategies for enhancement (Batool et al., 2021). According to Ewhrudjakpo and Kpee (2024), performance is influenced by several factors, such as inadequately trained and qualified teachers, a shortage of teachers, and a lack of infrastructure facilities. Rogers highlights concerns over the lack of understanding regarding the purposes and contextual factors of these assessments, which may affect students' performance and the schools they attend (Spillane, Hallett, & Diamond, 2003).

Historical background of examination in Pakistan

The examination system in Pakistan has a long history of evolution, originally modeled on the British system before shifting towards more localized methods. Here's an overview of the key developments and reform efforts:

Starting with Karachi in 1950 and Lahore in 1954, educational boards were created, reaching 10 boards by the late 1960s, indicating a move towards local examination systems. In the mid-1970s, Pakistan introduced an internal examination system to reduce dependency on external exams.

Efforts for reform were evident through various policies and reports from 1951 to 1984, focusing on issues like in-house evaluation and exam integrity. Policies signaled a move to continuous assessment, ending the annual exam system, introducing cumulative records, and laws against cheating.

I the decade of 1985-1998) task groups aimed to align exams with educational objectives, teaching methodologies, and practical assessments, as well as improve administrative skills and examination quality.

From 1998-2009) period emphasized internal evaluations, reorganizing examination departments, and expanding national testing services. In 2009 and 2010 the education system aimed for global competitiveness, focusing on competency-based assessments and standardizing education quality (Khattak, 2012).

Punjab Examination Commission (PEC) and its need

The NEP 1998-2010 declares that ''National assessment capacity shall be built by laying down a set of procedures to monitor the aggregate performance at grade 5 and grade 8 level and it should be reformed. The Pakistani examination system at the elementary level needs improvement and reforms, so the government of Punjab decided to establish the PEC (NEP, 2017).

The Punjab government in 2006 established PEC for large-scale examination of class five and eight. Before the establishment of PEC, the Director of Public Instructions (DPI) was responsible for conducting PEC examinations and for the provision of model questions papers along with instructions for Grade–V and Grade- VIII. In December 2005, there was a dire need to create an independent body dedicated to evaluating student learning outcomes within the province. This institute was developed with the collaboration of UNICEF and provides training to the field/supervisory staff (Arnold, 2009).

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Every year, nearly 2.5 million pupils register with the PEC to take exams at both grade levels. Applicants register for examinations using the Online Student Registration Software (OSRS). The Chief Executive Officers (District Education Authority) of the School Education Department will be responsible for conducting smooth PEC examinations in their concerned districts.

Steps for conducting examinations in Pakistan

The examination process involves multiple phases:The identification and selection of paper setters, question paper preparation, logistical support for printing and distribution, exam center selection, recruitment of supervisory staff, secure question paper delivery, provision of stationary, administration of exams, prevention of unfair practices, answer sheet management, and marking papers. Management in academic administration plays an important role in exam preparation, which promotes a supportive academic setting and contributes to society's overall success (Kuo, Batool, Tahir, Yu, et al., 2024). Post-examination activities include restoring original roll numbers, scrutinizing and results preparation, declaring results, handling re-checking requests, and awarding degrees. These steps ensure the integrity, efficiency, and fairness of the examination process, from setting papers to finalizing results and awarding qualifications (PEC, 2024). Universities examining bodies conduct public examinations through specific operational steps: pre-examination, during the examination, and post-examination modalities (Karamat, Tahir, Batool, Gulab, & Khan, 2022). Pre-examination involves identifying syllabi, accrediting educational institutions to teach these curricula, registering candidates, declaring syllabi and courses, scheduling exams, scrutinizing admission forms, allocating examination centers, and issuing roll number slips to students and superintendents timely. These systematic steps ensure the organized and efficient management of the examination process from preparation to execution. The examination process, covering paper setting to degree awarding, aims to ensure integrity and fairness through phases like preparation, administration, and post-exam checks. However, it faces challenges from malpractices, including paper leakage, candidate impersonation, and result manipulation, which occur before, during, and after exams, compromising the system's credibility. These issues, from leaking papers to issuing fake degrees, necessitate stringent measures to maintain the process's integrity and fairness across all stages (Harris, 2011). These practices undermine the examination's integrity and fairness, affecting both the conduct and processing stages.

Conceptual framework

From the perspective of PEC examinations, distributed leadership describes a collaborative framework for decision-making and problem-solving that incorporates contributions from stakeholders such as head teachers, teachers, and administrative staff. A fundamental principle of this method is shared responsibility; leadership roles and tasks are distributed to multiple individuals rather than centralized in one authority. Collaboration encourages a sense of ownership and responsibility, promoting active participation from everyone. Adaptability allows leaders to respond flexibly and handle obstacles within the examination administration process. In PEC, headteachers face multidimensional challenges, such as administrative, academic, time restrictions, and psychological pressures among staff. Exam malpractices like privacy breaches, corruption, and errors in result preparation increase the stress level of administration and reduce the overall effectiveness of the exam. Hence, the distributed leadership model can provide an organized method to deal with these challenges collaboratively, encourage shared responsibility, boost adaptability, and finally improve the quality of examination processes.

Theoretical framework

The theoretical framework is based on The distributed leadership model. The distributed leadership model, as described by Spillane and Camburn (2006), diverges from conventional hierarchical frameworks by focusing on the collaborative allocation of leadership duties among various stakeholders in an organization. Leadership is distributed among individuals at various levels, which contributes to decision-making, problem-solving, and organizational improvement. The distributed leadership model in exam administration highlights the importance of collaboration and responsibility among all engaged staff members. Leadership encourages active engagement and participation from all stakeholders. As formal leaders within schools, the head teachers play a crucial role in conducting examinations. They collaborate and create opportunities for teachers and staff to participate in decision-making processes and examination processes like planning, preparation, and implementation. School leadership is described as a distributed practice in roles and responsibilities shared among both leaders and classroom teachers (Spillane & Camburn, 2006). Distributed leadership improves school and student learning outcomes; the schools require the principal to delegate authority and consider team performance (Van Ameijde, Nelson, Billsberry, & Van Meurs, 2009). This leadership style may increase academic decision-making (Jones, 2014). In the context of Punjab Examination Commission (PEC) examinations, the distributed leadership model addresses challenges faced by secondary school head teachers. The distributed leadership model emphasizes collaboration among various stakeholders, including head teachers, teachers, and other staff members.

In PEC examinations, head teachers can delegate responsibilities related to examination administration among teachers and staff, empowering them to take ownership of tasks and initiatives. Shared responsibility also promotes a sense of accountability for head teachers and commitment among all stakeholders toward the successful conduct of examinations.

Research Methodology

The study was mixed method in nature, focused on analyzing the problems and challenges in conducting PEC examinations and utilized a mixed-methodology approach. The qualitative and quantitative data were collected through interviews and questionnaires. Questionnaires denote the most structured form of data collection tools, while interviews are the least structured tools (Gillham, 2000). According to Creswell (2011), this methodology enables in-depth investigation by combining different research methods across various stages. This descriptive study used a survey research method to collect data. Due to limited resources or time, the focus of the study was Head Teachers and Teachers from government/public schools in Khanewal, Lodhran, Multan, and Muzaffargarh districts. Data was collected from government schools that were engaged in PEC exam duties, including resident inspectors, marking center heads, and class in-charges in government high schools. This descriptive survey included heads of higher secondary schools and staff members from various schools in specific districts of South Punjab. The data collection duration was June 2023 to September 2023.

Sample

Punjab, the largest province of Pakistan, encompasses 36 districts. According to a census conducted by the Punjab School Education Department, there are a total of 680 government higher secondary schools in Punjab, with 326 for boys and 354 for girls, and 6402 government high schools, with 3412 for boys and 2990 for girls, making the total number of schools 7082. Population data was gathered from the websites of the Punjab School Education Department and PEC and was verified with local offices. A random sampling technique was utilized for the survey, as indicated in Taherdoost (2016). The survey used a self-administered questionnaire with a five-point Likert scale and was distributed to 213 in-charge Examination cluster centers and 87 in-charge Paper marking centers, resulting in a total of one hundred questionnaires.

Data collection

The researcher gathered data by distributing 100 questionnaires to teachers and personally interviewing the school heads. The interviews lasted between 30 to 45 minutes and took place from June 2023 to September 2023. A combination of quantitative (questionnaire survey with 100 respondents) and qualitative semi-structured interviews (12 in total) were employed for data collection. The headteachers were asked for suggestions to address issues concerning the administration of PEC examinations. During the interviews, the respondents provided a range of suggestions in response to open-ended questions on how to enhance the conduct of the PEC examinations. Data was obtained through questionnaires and interviews, both of which were conducted in person. The questionnaires were analyzed using the Statistical Package for Social Sciences to employ statistical techniques, such as descriptive statistics and t-tests. The data collected from interviews was analyzed using thematic analysis.

Data Analysis

Data analysis for this study involved the use of SPSS, with both descriptive and inferential statistics being used. G. Gay and Howard (2000) emphasizes the importance of defining the statistical techniques used in research plans. The study utilized SPSS to analyze data, converting questionnaire responses into numerical values and employing reverse scoring for positive statements (Strongly Agree=1 to Strongly Disagree=5). Issues were identified based on a mean value above 3.0. Descriptive statistics and independent sample t-tests were the statistical techniques applied. To address issues related to PEC examinations, interviews were conducted and the results were analyzed and presented using thematic analysis. The challenges faced by the school head teacher were analyzed through interviews using thematic analysis. These interviews helped reveal recurring themes and insights into the complexities of examination management.

Table I

Administrative problems in conducting PEC examinations

Statement	Mean	Std. Dev
Sufficient space (Hall/ rooms) is provided in school for the PEC exam.	2.98	1.3
Is Electricity available at the school?	3.63	1.3
Classroom furniture is sufficient for student strength.	3.31	1.2
Number of the classrooms is according to students need.	3.64	1.2
A drinking water facility is available for all students in the school.	3.11	1.2
The IT lab is available and functions regularly.	2.51	1.2
Teachers do lesson planning before the delivery of lessons in class.	3.28	1.2
Teachers use audio-visual aids to make a lesson effective.	3.81	1.1
Overall Administrative problems.	3.20	0.9

Table 1. Indicates the administrative problems of teachers and head teachers. The mean value of the statements lies between 3-4, which shows respondents have a high level of consensus regarding having non-stop Electricity, the number of classrooms and furniture sufficient for classroom strength, and teachers of secondary classes using audio-visual aids to make a lesson effective. However, instructional planning/ lesson delivery is effective, and a drinking water facility is also available. The mean value of a few statements is less than 3 and more than 2.5, which shows respondents have a low level of consensus regarding whether sufficient space is provided in school for the PEC exam and whether the IT lab is operational and working regularly in school. The mean value of overall administrative problems is 3.2, whilst the standard deviation is 0.9, which indicates respondents have a moderately high level of consensus regarding overall administrative problems.

Table II

Time management problems in conducting PEC examinationsas perceived by teachers, head teachers, and students of secondary schools

Statements	Mean	Std. Dev
Teachers use low-cost learning materials to improve the efficacy of the lesson.	3.3	1.2
Teachers assign homework to the students according to the schedule.	3.9	0.9
Teachers provide feedback to the students regarding homework.	3.8	0.9
Teachers conduct class tests regularly to assess learning outcomes.	3.6	1.1
Overall time management problems.	3.7	0.8

Table 2. Indicates the results of time management problems. The mean value of all statements is more than 3 it indicates respondents have high consensus regarding statements; teachers use low-level cost material to make lessons more effective, assign homework under a

pre-set schedule, check homework to give feedback to students, conduct tests regularly to assess learning outcomes and regarding overall time management problems.

Table III

Psychological problems in conducting PEC examinations as perceived by teachers and head teachers of secondary schools

Statements	Mean	Std. Dev
The school success rate is high due to the effective use of audio-visual aids.	1.9	9
The student's creative ability is enhanced by the use of physical materials.	3.6	0.9
A healthy working environment satisfies the teachers.	4.0	0.8
Teachers are satisfied with their occupations due to good pay.	2.5	1.2
Teachers are satisfied due to the management's attitude.	2.4	1.2
Overall Psychological Problems	2.9	0.4

Table 3. Indicates the results of psychological problems. As the mean value of the two statements is more than 3.5, it shows respondents have a high level of consensus regarding statements; the student's creative ability is enhanced by the use of physical materials, and the healthy working environment satisfies the teachers. As the mean value of four statements and overall psychological problems is less than 3, it shows that respondents have a low level of consensus regarding statements; the school success rate is high due to the effective use of audio-visual aids, and teachers are satisfied with their occupations due to good pay. Teachers are satisfied due to the management's attitude and overall psychological problems.

Table IV

The examination conducting problems in PEC examinations as perceived by teachers and head teachers of secondary schools

Statements	Mean	Std. Dev
Teachers maintain the teacher's diary for effective instruction.	2.4	1.1
Teachers arrange co-curricular activities regularly.	3.9	0.8
Teachers appreciate student's good performance in co-curricular activities.	3.4	1.4
Teachers conduct in-class presentations for student's confidence building.	3.4	1.2
Teachers conduct parent-teacher meetings for awareness of parents.	3.5	1.3
Academic achievement at school is high due to the physical facilities	3.2	1.3
A better environment in classrooms helps in better performance of students.	2.5	1.4
Examination conducting problems	3.2	0.7

Table 4. Indicates the results of examination conducting problems in PEC examinations as perceived by teachers and head teachers of secondary schools. The mean value of 6 statements is more than 3, which shows respondents have a high level of consensus regarding statements. Teachers arrange co-curricular activities regularly. Teachers encourage students to take part in sports and other activities; teachers encourage students to take part in sports and show good performance. Teachers boost student confidence through presentations in class and arrange parent-teacher meetings to raise awareness among parents. Hold in-class presentations to boost student confidence and conduct parent-teacher meetings to keep parents informed; the school's academic success is high due to physical resources and also regarding overall examination conduct. As the mean value of 2 statements is less than 3, it shows that respondents have a low level of consensus regarding statements; teachers' diary is maintained by the instructors/teachers for effective instruction and a better learning environment for classrooms, which improves students' performance.

Table V

The gender-based comparison regarding problems and challenges in conducting exam

Demographic Variable	Category	*n*	Mean	*SD*	*t*-value	*Sig.*
Gender	Male	100	3.27	.503	.551	.582
	Female	100	3.22	.663		

The data in the table indicates that the average for males is slightly higher at 3.27 compared to females at 3.22. With a p-value of 0.582, there is no statistically significant difference between males and females regarding the difficulties encountered during PEC exams, as it exceeds the 0.05 threshold.

Table VI
Comparison of rural and urban teachers' opinions about PEC exams

Demographic Variable	Category	N	Mean	SD	t-value	Sig.
Type of School	Urban	102	3.26	.51763	.475	.635
	Rural	98	3.22	.56392		

*= 0.05

Urban schools have a mean score of 3.26, which is slightly higher than the mean score of 3.22 for rural schools. With a p-value of 0.635, there is no statistically significant difference between urban and rural schools in terms of the problems faced during PEC exams, as the p-value exceeds 0.05.

Qualitative Results

The research investigated the difficulties experienced in administering the Punjab Examination Commission (PEC) exams using both statistics and interviews with head teachers, teachers, and students. The results emphasized the intricate nature of the PEC examination process, highlighting logistical, time management, and psychological issues. Issues with Administration and Academics Schools encountered significant logistical challenges during PEC examinations, such as insufficient space for exams, as reported by 48% of teachers with a mean score of 2.98. Additionally, 65% of respondents expressed dissatisfaction with the lack of proper furniture, giving it a higher mean score of 3.63. Problems with staffing and class arrangement were mentioned by 59% of teachers, both registering a mean score of 3.31, indicating strain on school infrastructure. Overall facilities were also found to be inadequate, with 68.5% of respondents expressing dissatisfaction, reflected by a mean score of 3.64. Moreover, 52% of respondents deemed security measures to be insufficient, with a mean score of 3.11. Despite these challenges, 69% of teachers noted that the curriculum for grades 6-10 was covered on time, but the mean score of 2.51 suggests room for improvement. Fifty-three percent of respondents believed that student learning was negatively impacted by the PEC exams, as evidenced by a mean score of 3.28. Challenges with Time Management The PEC exams posed significant challenges in time management for school staff. Based on the survey, 72.5% of teachers indicated that head teachers lacked sufficient preparation time, with a high mean score of 3.81. Additionally, 61% of respondents reported that the exams disrupted the schedules of other teachers, with a mean score of 3.34. A major concern was the negative impact on grades 6-10, as reported by 82.5% of the teachers, with the highest mean score of 3.87 in this category, highlighting the strain the PEC exams place on the regular teaching process. Moreover, 78% of teachers found adjusting the school timetable for PEC duties to be a significant challenge, with a mean score of 3.84. These findings underscore the substantial logistical difficulties associated with managing time effectively during the PEC exams. Issues with Exam Administration The survey revealed various issues related to the actual conduct of PEC examinations. Sixty-seven percent of teachers found the PEC exams to be challenging, with a mean score of 3.57. However, only 63% disagreed with the sentiment that these exams overburden teachers, as evidenced by a mean score of 2.43. Administrative support emerged as a significant area of concern, with 84.5% of respondents expressing dissatisfaction, as reflected by a mean score of 3.85. Concerns regarding exam integrity and discipline were raised by over half of the respondents, with mean scores ranging between 3.11 and 3.54. Difficulties in interactions with external stakeholders were also reported by 61% of teachers. Finally, 50% of respondents highlighted the impact of the PEC exams on regular classroom activities, with a mean score of 3.20. These results indicate systemic administrative and educational challenges related to the PEC exams.

Psychological issues

The survey responses clearly indicated the psychological impact of PEC exams. Almost 59.5% of respondents stressed that head teachers experienced significant stress during the PEC exam period, while 87% felt overwhelmed by the pressure to complete the curriculum, with an average score of 4.00. After the exams, three-quarters of respondents struggled with managing the workload, as indicated by an average score of 3.61. A majority of the teachers (60.5%) felt neglected towards students in grades 6-10, although the average score of 2.51 suggests that not everyone shared this concern. Furthermore, 74% of teachers noted increased stress levels due to parental underestimation of the challenges associated with the PEC exams, with an average score of 2.35. These findings reveal widespread psychological stress among head teachers, teachers, and students during the PEC exam period, with no significant differences observed based on gender or school location.

Challenges reported by school heads

Insights from interviews with school principals provided further understanding of the challenges faced during the PEC exams. Principals consistently emphasized issues such as student indiscipline, staff shortages, and inadequate space for conducting exams. Many schools had to merge classes to address these limitations, resulting in delays in syllabus coverage and decreased student attendance. The recurrent

theme of overwhelming stress experienced by head teachers led principals to call for urgent reforms to the examination system. The most critical recommendations included the establishment of dedicated exam centers and the provision of better support systems to ensure fairness and efficiency in conducting PEC exams. These interviews highlighted a consensus on the necessity of structural changes to address logistical and administrative challenges more effectively.

Discussion

The examination survey conducted on PEC exams revealed several difficulties, primarily linked to inadequate resources and infrastructure in schools. Insufficient space and furniture were reported by nearly half of the teachers, exacerbating organizational issues and impacting exam administration. Additionally, concerns included staff shortages, inadequate class arrangements, security issues, and limited facilities. Despite these operational challenges, the teaching of non-exam classes' curriculum was largely unaffected. However, over half of the educationists believed that PEC exams had a negative impact on student learning due to time management problems and disruptions to regular teaching schedules. Moreover, financial constraints made it difficult for schools to effectively address these issues, affecting both teachers' and headteachers' performance. Significant stress was experienced by teachers, and headteachers were concerned as they were accountable to both the department and the community. Administrative-level reforms were recommended by the study, such as better financial resource allocation, improved staff training, and the establishment of dedicated exam centers to mitigate the identified challenges. The findings are consistent with various research studies on the challenges presented by examination systems in Pakistan. Perveen and Aziz (2021) highlighted that despite numerous initiatives and policies aimed at enhancing exam systems, there has been limited success in promoting students' cognitive development. Similarly, Bibi, Tahir, Ishfaq, and Batool (2023) emphasized the crucial role of teacher quality in educational excellence, reiterating that inadequate training and resource shortages can negatively affect learning results. These similarities indicate that the operational obstacles identified in the PEC exam survey reflect broader systemic issues within Pakistan's educational framework. The findings are also in line with the work of Batool et al. (2021), who stressed the importance of teacher attitudes in shaping student achievement, further emphasizing that the stress experienced by teachers during exam periods can negatively impact their performance and, consequently, student outcomes. Conversely, some research presents findings that contrast with the present study. Spiel et al. (2018) argue that well-organized examination systems play a pivotal role in the educational development of a society by fostering skills, knowledge, and motivation among students. They suggest that exams, when properly managed, can serve as benchmarks for academic and professional development, contrary to the negative impact on learning identified in the PEC exam survey. While the present study emphasizes operational difficulties and their adverse effects on both teaching and learning, studies such as those by Green and Batool (2018)) suggest that examinations can, in fact, enhance curriculum coverage and teacher effectiveness when supported by sufficient resources and well-trained staff. The theories in the literature regarding the role of examinations align partially with the findings of the present study. According to the NEP, 2017, exams are integral to the assessment of student learning and teacher performance. However, the policy assumes a well-resourced and well-organized environment, which contrasts with the actual conditions observed in the PEC exam study. While the theoretical framework suggests that examinations motivate students and ensure fairness in academic evaluation, the current research demonstrates that resource shortages and infrastructural limitations undermine these goals, leading to stress among educators and disruptions in the learning process. In conclusion, the study highlights significant challenges in the administration of PEC exams in schools, ranging from infrastructure and staffing issues to the broader impact on student learning. The findings emphasize the need for administrative reforms, including better financial support, staff training, and infrastructural improvements. While the results are consistent with some studies on the negative consequences of poorly managed exam systems, they also challenge the notion that examinations inherently enhance educational outcomes. By addressing these challenges, PEC exams could become a more effective tool for assessing student learning and promoting educational progress.

Theoretical and Practical Implications

The research significantly enhances our theoretical understanding of how natural resource rents relate to economic growth in the context of green growth. It builds on and broadens existing theories by emphasizing how green growth strategies can harness natural resource rents to drive sustainable economic development. This is consistent with the principles of "green growth" and "resource efficiency," indicating that economic theories need to evolve to encompass the interaction between environmental sustainability and economic advancement. By incorporating insights from previous studies, the research reinforces the notion that natural resource abundance does not inevitably lead to economic stagnation or the "resource curse," but can be managed to achieve positive growth outcomes.

This theoretical progress encourages further investigation into how resource-rich economies can strike a balance between economic growth and environmental stewardship, thereby enriching the wider discussion on sustainable development. From a practical standpoint, the research emphasizes the importance of policymakers and economic planners in resource-rich areas adopting green growth strategies that maximize the benefits of natural resource rents while minimizing potential negative effects. It indicates that integrating environmen-

tal sustainability into economic policies can result in more efficient utilization of resource revenues, thereby fostering long-term economic stability and growth. For professionals, this underscores the need to create and implement frameworks that align resource management with sustainable development objectives. The findings advocate for investments in green technologies, enhanced resource efficiency, and governance reforms to ensure that natural resource wealth leads to enduring economic advantages. Additionally, it underscores the significance of collaboration between the public and private sectors in formulating policies that balance economic and environmental goals, providing practical insights for achieving sustainable development in resource-dependent economies.

Limitations and future direction

The study has several limitations that need to be recognized. To begin with, the research mainly concentrates on the connection between natural resource rents and economic growth in the context of green growth strategies, possibly overlooking other crucial factors like political stability or global economic conditions. Additionally, the data used for analysis may be limited in scope or prone to inaccuracies, impacting the applicability of the findings. Relying on secondary data sources and existing literature might also introduce biases or gaps in the analysis. Moreover, the conceptual framework used may oversimplify the complexities of integrating green growth into economic planning, potentially neglecting regional variations or sector-specific challenges. These limitations imply that the study's conclusions should be approached with caution and in consideration of broader economic and environmental dynamics. To address these limitations, future research should encompass a more comprehensive range of variables influencing the relationship between natural resource rents and economic growth, such as governance quality, technological innovation, and global economic trends. Conducting primary research, including case studies or longitudinal analyses, would provide deeper insights into the effective implementation of green growth strategies in various contexts. Additionally, examining the impact of specific policies and practices on different sectors within resource-rich economies could yield more nuanced findings. Future studies may also explore the role of international cooperation and trade in promoting sustainable resource management. By broadening the scope and methodology of research, scholars can build on the current study's findings to formulate more robust and actionable recommendations for policymakers and practitioners striving for sustainable development in resource-dependent regions.

Conclusion

The analysis of a survey on PEC exams in schools discovered several challenges: nearly half the teachers reported insufficient space and a lack of furniture, which exacerbated organizational issues and impacted exam conduct. Staff shortages and inadequate class arrangements further hinder exam administration, alongside security concerns and insufficient facilities. Despite these operational hurdles, curriculum coverage for non-exam classes remains unaffected. Over half the educationists believe PEC Exams negatively influence student learning, with significant time management problems and disruptions to regular teaching schedules. Deep dedication is needed to these exams and reforms at the administration level. The study shows that issues faced by headteachers on school premises include school discipline, space, and shortage of classrooms during exam periods. Some schools have no resolutions to solve such problems due to the unavailability of funds, which creates hurdles for school facilities. It may affect the performance of the teachers and, as a result, the headteacher also because he/she is answerable to the department and community.

However, several school leaders face financial difficulties, which is a huge challenge regarding additional staff hiring for exams and handling the classes during exam days. Although transparency should be maintained, shortages of staff and lack of resources impact the timely completion of the syllabus of classes. The teachers are stressed, and head teachers are thoughtful, which is why stress management techniques should be encouraged. Various suggestions for improvement can play a beneficial role in the future, such as enrichment of financial and resource allocation, the establishment of exam centers buildings, and paying attention to staff training. The findings of the study recommended and addressed famous issues across (PEC) exams. Firstly, altering the exam schedule after 1:00 PM in February will be helpful regarding disruption because the weather is not harsh in this month.

Extending the research to include all 36 districts in Punjab, rather than just four districts, could provide a complete understanding of the challenges and issues faced by School headteachers in Punjab. Financial incentives for teachers, head teachers, Resident Inspectors (RIs), and Cluster In-charges should be increased. Measures to eliminate the "Booti Mafia (Cheating Mafia)" are necessary to ensure fairness and transparency in PEC exams and above mentioned findings and recommendations would increase the effectiveness of the PEC examination.

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