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# QUALITY OF TEACHER EDUCATION: CHALLENGES AND PROSPECTS AT UNIVERSITY LEVEL

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**Abstract**

Educational systems in all sectors depend on the quality developed through teacher education program to create measurable outcomes. Higher-level teacher education program in Pakistan face challenges because of obsolete curricula as well as inadequate training infrastructures and limited professional development opportunities and weak regulatory frameworks. This analysis evaluates the aforementioned issues that impact development while investigating their growth alongside Pakistan's economic context and policy systems. The advancement of educational reform includes the integration of technology in teaching practices as well as program for institutional capacity building through international organizational collaborations. By combining quantitative and qualitative data the research lays the foundation f-+or strategic improvements which will strengthen Pakistan's teacher education system to produce knowledgeable reflective educators.

## Introduction

Teacher education plays a critical role in shaping the quality of education at all levels. In an era marked by rapid social, technological, and pedagogical changes, ensuring the quality of teacher education has become more crucial than ever. Universities, as the apex institutions responsible for professional teacher preparation, face the dual responsibility of equipping prospective educators with theoretical knowledge and practical competencies necessary to meet 21st-century classroom demands.

Despite the growing awareness of its importance, teacher education at the university level often encounters challenges related to outdated curricula, insufficient practicum experiences, limited use of technology, and a lack of alignment between teacher preparation and classroom realities (Darling-Hammond, 2017). These issues are further complicated by increasing student enrollment, resource constraints, and varying standards across institutions.

Such challenges raise concerns about the readiness and effectiveness of teacher graduates entering the education system.

However, the prospects for improving the quality of teacher education are equally significant. Innovations in pedagogy, the integration of digital learning tools, stronger partnerships with schools, and policy reforms focused on accountability and outcomes present valuable opportunities. Additionally, ongoing research and global best practices offer frameworks that can guide institutions in enhancing the rigor, relevance, and responsiveness of teacher training programs.

A well-structured teacher education program is a cornerstone for educational transformation. High-quality teacher education not only enhances classroom instruction but also positively impacts student learning outcomes (Cochran-Smith et al., 2016). At the university level, teacher preparation must strike a balance between academic rigor and practical relevance. However, many teacher education programs, particularly in developing countries, still emphasize theoretical knowledge over hands-on experience, leading to a disconnect between what is taught and the realities of classroom teaching (Korthagen, 2010).

Another challenge lies in the inconsistent quality and standards of teacher education across institutions. Variations in faculty expertise, curriculum design, assessment practices, and student support systems contribute to uneven teacher preparation (UNESCO, 2016). In some cases, teacher educators themselves may lack adequate training in innovative pedagogy or fail to model reflective teaching practices, which undermines the learning experience of pre-service teachers (Darling-Hammond, 2006).

Moreover, globalization and technological advancements are rapidly changing the educational landscape, demanding new skills and approaches from teachers. Digital literacy, inclusive education, critical thinking, and adaptability have become essential competencies for educators. Unfortunately, many university-level teacher education programs have been slow to integrate these elements into their curriculum (Schleicher, 2018). As a result, newly qualified teachers often feel underprepared to deal with the diverse and dynamic needs of today's learners.

Despite these challenges, there are promising prospects for reform. A shift toward competency-based education, stronger school-university partnerships, and the inclusion of reflective practices and action research are gaining traction in many teacher training programs

(Zeichner, 2010). International frameworks such as the UNESCO Teacher Policy Development Guide emphasize continuous professional development, quality assurance mechanisms, and institutional accountability as key pillars for improving teacher education systems (UNESCO, 2015).

Band new B.Ed. (Hons) and M.Ed. degree programmes exist yet many teacher education institutions face persistent challenges from outdated curricula alongside poor practical training and minimal research focus together with insufficient faculty development initiatives. Quality teacher preparation suffers from multiple issues stemminig from varied educational standards across institutions and insufficient use of contemporary teaching methods along with inadequate monitoring systems.

Pakistan's dedication to Sustainable Development Goal 4 (notable for Quality Education) relies heavily on advancing teacher education programmes. Future educational reform and national development require a comprehensive understanding of the current teacher education system alongside barrier identification and pursuit of workable solutions.

In this context, the present study aims to explore the current state of teacher education at the university level, identify the key challenges hindering quality, and examine the prospects and strategies that can help transform teacher preparation into a more effective, reflective, and contextually relevant process.

**Statement of the Problem**

Teacher education quality at the higher level in Pakistan shows little improvement despite multiple policy interventions and institutional reforms. The absence of coherence and innovation alongside practical relevance within teacher education programmes produces graduates who struggle to meet ongoing classroom demands. Multiple enduring issues comprising defective infrastructure and outdated teaching approaches coupled with inadequate professional development options for faculty members and weak connexions between educational theory and practical settings work against creating an effective teaching workforce.

Teacher preparation across different regions and institutions demonstrates significant variations due to ineffective implementation of policy frameworks. The absence of rigorous assessment protocols to monitor teacher education quality makes the problem worse. This research investigates the multiple obstacles facing teacher education programmes and suggests solutions to improve their quality throughout Pakistan's higher education framework.

**Objectives of the Study**

1. To investigates the existing state of teacher education programs delivered at university level.
2. To identify the barriers to quality of teacher education at university level.
3. To evaluate the effectiveness of existing teacher education programs at the university level.
4. To proposes actionable recommendations to improve the quality of teacher education at university level.

**Research Questions**

1. What is the current status of teacher education programs at the university level?
2. What are the main challenges hindering the quality of teacher education in universities?
3. How effective are existing teacher education programs in preparing prospective teachers?
4. What strategies and reforms can be proposed to enhance the quality of teacher education at the university level?

**Literature Review**

The quality of teacher education is a major determinant of educational effectiveness at all levels of schooling. Research indicates that well-prepared teachers are more likely to foster student learning, adapt to diverse classroom environments, and implement innovative teaching strategies (Darling-Hammond, 2006). At the university level, teacher education programs are expected to combine subject knowledge, pedagogical skills, and professional values. However, studies suggest that many programs still lack coherence between theory and practice, limiting the capacity of pre-service teachers to apply their learning in real classroom settings (Korthagen, 2010).

One of the central challenges in teacher education is the limited integration of practical experience with academic content. Zeichner (2010) emphasizes the need for "hybrid spaces" that blend university-based coursework with field-based experiences, allowing teacher candidates to reflect critically on their teaching practices. The traditional separation between universities and schools has often led to a mismatch between what is taught in teacher preparation programs and the realities of classroom teaching. This disconnection undermines the development of reflective and adaptive teaching professionals.

Institutional factors such as curriculum quality, faculty qualifications, assessment practices, and access to teaching resources also influence the overall quality of teacher education (UNESCO, 2016). In some contexts, faculty members may not have sufficient

training in contemporary teaching methodologies or may not model best practices in their instruction. As a result, pre-service teachers may graduate with limited exposure to student-centered, inquiry-based, or technology-integrated teaching strategies (Cochran-Smith et al., 2016). These gaps pose serious concerns about the readiness of teacher graduates.

The rise of digital learning tools and global educational reforms presents both opportunities and demands for transformation in teacher education. According to Schleicher (2018), 21st-century teaching requires educators to develop competencies in digital literacy, collaboration, problem-solving, and inclusive pedagogy. Yet, many teacher preparation programs remain anchored in outdated models that fail to adequately prepare teachers for these evolving roles. Efforts to modernize teacher education must prioritize curriculum innovation, continuous professional development, and a culture of reflective practice.

Despite these challenges, there are growing movements to enhance teacher education through quality assurance frameworks, standards-based evaluation, and policy support. International guidelines such as UNESCO's Teacher Policy Development Guide (2015) advocate for a systemic approach to improving teacher preparation, including clear benchmarks, stakeholder collaboration, and evidence-based program improvements. These models underscore the importance of aligning teacher education with national education goals, labor market needs, and global competency frameworks.

Another critical issue affecting teacher education quality is the variability in practicum experiences. Research has shown that the quality and duration of student teaching significantly impact a teacher candidate's readiness for real-world classrooms (Ronfeldt et al., 2014). When practicum placements are inconsistent, poorly supervised, or misaligned with university coursework, teacher candidates struggle to integrate theory into practice. Effective field experiences should include mentorship from experienced educators, opportunities for reflective dialogue, and formative assessments that guide professional growth (Hudson, 2012). Unfortunately, many institutions face challenges in establishing strong partnerships with schools, which undermines the depth and authenticity of field learning.

Faculty quality and professional development also play a pivotal role in enhancing teacher education programs. Effective teacher educators model reflective practice, inquiry-based pedagogy, and culturally responsive teaching—skills essential for future teachers (Loughran, 2014). However, in many universities, teacher education is delivered by faculty with limited

experience in school teaching or without adequate training in pedagogical innovations. Continuous professional development for teacher educators, including collaboration, research engagement, and exposure to global best practices, is essential for improving program effectiveness (Goodwin et al., 2014).

Policy frameworks and institutional support are also integral to ensuring quality in teacher education. National standards for teacher education, accreditation mechanisms, and clear program evaluation criteria help maintain consistency and accountability across institutions (European Commission, 2013). Countries with strong systems—such as Finland and Singapore—have invested heavily in selecting high-quality teacher candidates, offering research-based education, and providing structured induction and mentorship during the early years of teaching (Sahlberg, 2011). These models demonstrate that sustained policy attention and adequate investment are key to developing competent and confident teachers.

Furthermore, globalization and educational reform movements have created new expectations for teacher preparation. In an increasingly interconnected world, teachers must be equipped to foster global competencies, address social justice issues, and teach diverse learners effectively. The shift toward inclusive education and multicultural classrooms demands that teacher education programs emphasize equity, differentiated instruction, and learner-centered approaches (Banks & Banks, 2019). Programs that fail to adapt to these realities risk producing graduates who are ill-prepared for modern classrooms.

A well-designed and coherent curriculum is foundational to the success of teacher education programs. Scholars have emphasized that effective programs integrate pedagogical theory, content knowledge, and practical application in a seamless manner (Darling-Hammond, 2006). When coursework is disconnected from classroom realities, teacher candidates often fail to develop the skills necessary for effective teaching. The curriculum should also be responsive to contemporary educational challenges, such as inclusive education, digital literacy, and competency-based learning. Yet, many programs remain outdated, focusing on rote methods instead of fostering reflective and inquiry-based teaching practices (Moon, 2007).

In the digital era, the integration of educational technology into teacher education has become increasingly essential. Technology not only enhances the delivery of instruction but also prepares future teachers to use digital tools effectively in their own classrooms. Studies suggest that teacher education programs that incorporate ICT training, digital pedagogy, and

technology-enhanced assessments improve both teaching efficacy and student engagement (Tondeur et al., 2012). However, access to technology, lack of training among faculty, and insufficient digital infrastructure often limit meaningful implementation, particularly in developing countries.

Quality assurance mechanisms are another area of concern in teacher education. Accreditation systems, performance assessments, and institutional audits are used in many countries to monitor and improve teacher education programs. Effective quality assurance practices involve regular feedback loops, stakeholder involvement, and evidence-based evaluation of program outcomes (OECD, 2019). However, in many universities, these systems are either absent or ineffective, leading to variations in program quality and outcomes. A lack of accountability often results in programs failing to evolve or meet national standards of excellence.

Furthermore, the recruitment and selection of candidates into teacher education programs influence the overall quality of graduates. High-performing education systems, such as those in South Korea and Finland, maintain rigorous entry requirements and select candidates based on academic merit, motivation, and communication skills (Barber & Mourshed, 2007). In contrast, many institutions admit large cohorts with little consideration for aptitude or passion for teaching, contributing to poor retention and performance in the profession. Strengthening admission policies and offering pre-admission orientation can help attract and retain committed individuals.

Finally, the role of reflective practice and research in teacher education is gaining recognition. Encouraging teacher candidates to engage in classroom-based research helps develop critical thinking and problem-solving abilities. Programs that promote action research and reflective journaling cultivate a deeper understanding of educational issues and foster lifelong learning habits (Cochran-Smith & Lytle, 2009). Yet, many programs overlook these components due to time constraints or limited faculty expertise in guiding research-based learning.

**Research Methodology**

This study employs a mixed-methods research approach, combining both quantitative and qualitative methods to gain a comprehensive understanding of the quality indicators in higher education. The target population consists of all prospective teachers enrolled in the

Department of Education at the University of Gujrat. A sample of 100 prospective teachers was selected through a random sampling technique to ensure representativeness in the quantitative phase. Additionally, five prospective teachers were purposively selected for in-depth qualitative interviews to gain richer insights. Data for the quantitative component were collected using structured questionnaires designed to capture perceptions regarding the quality of teacher education programs and the challenges faced in training. For the qualitative component, semi-structured interviews were conducted to explore participants' views on institutional practices, reforms, and leadership influences in greater depth. Quantitative data were analyzed using SPSS software, employing both descriptive and inferential statistics to identify trends and relationships. Thematic analysis was applied to the qualitative data through systematic coding to extract key themes and patterns that complement and deepen the understanding of the quantitative findings.

**Data Analysis**

**Quantitative Analysis**

**Table-1: Levels of Current Status of Teacher Education Program at University Level**

| Category | Frequency | Percent | Mean | Standard Deviation |
|---|---|---|---|---|
| Low | 3 | 3.0 | 2.5900 | .55222 |
| Moderate | 35 | 35.0 | | |
| High | 62 | 62.0 | | |
| Total | 100 | 100.0 | | |

The table presents the distribution of respondents' perceptions regarding the current status of the teacher education program at the university level, categorized into three levels: Low, Moderate, and High.

A majority of respondents (62%) perceive the current status of the teacher education program as high, indicating a generally positive evaluation. A considerable portion (35%) rated the status as moderate, reflecting a more neutral or average viewpoint. In contrast, only 3% of respondents consider the status to be low, suggesting that a minimal number of participants hold a negative perception of the program.

The overall mean score is 2.59, with a standard deviation of 0.55. This mean score suggests a moderately favorable perception of the teacher education program. The standard deviation

indicates moderate variability in responses, particularly among those who rated the program less favorably.

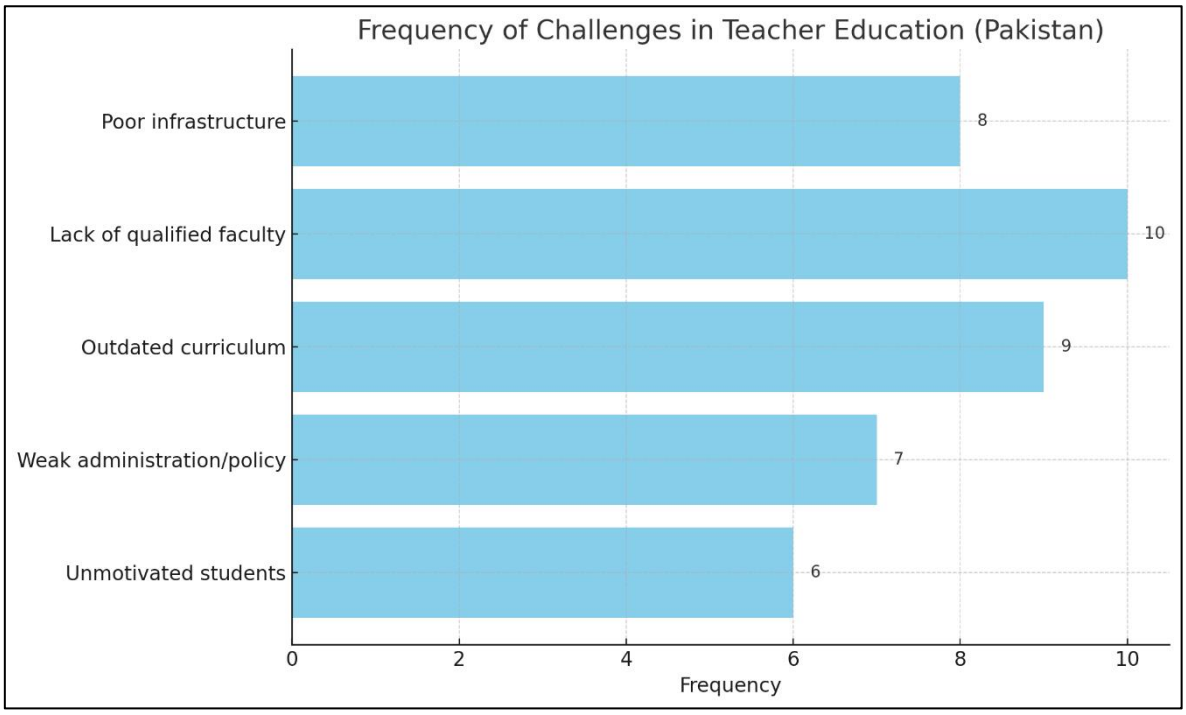


***Figure 1: Frequency Barchart on Challenges faced in Teacher Education in Universities***

The bar chart illustrates the frequency of key challenges identified in teacher education programs in Pakistan, based on participant interviews. The most frequently cited issue is the lack of qualified faculty (10 mentions), highlighting concerns over teacher competency and training. This is closely followed by an outdated curriculum (9 mentions), which suggests that current academic content does not align well with modern classroom needs or educational trends. Poor infrastructure, such as inadequate facilities and learning environments, was mentioned eight times, indicating systemic resource limitations. Weak administration and policy-related shortcomings were raised by seven respondents, pointing to ineffective leadership and governance in the education sector. Lastly, the issue of unmotivated students, mentioned six times, reflects concerns over low student engagement and entry-level preparedness. Collectively, these findings underscore the need for comprehensive reform across institutional, curricular, and administrative domains to improve teacher education quality.

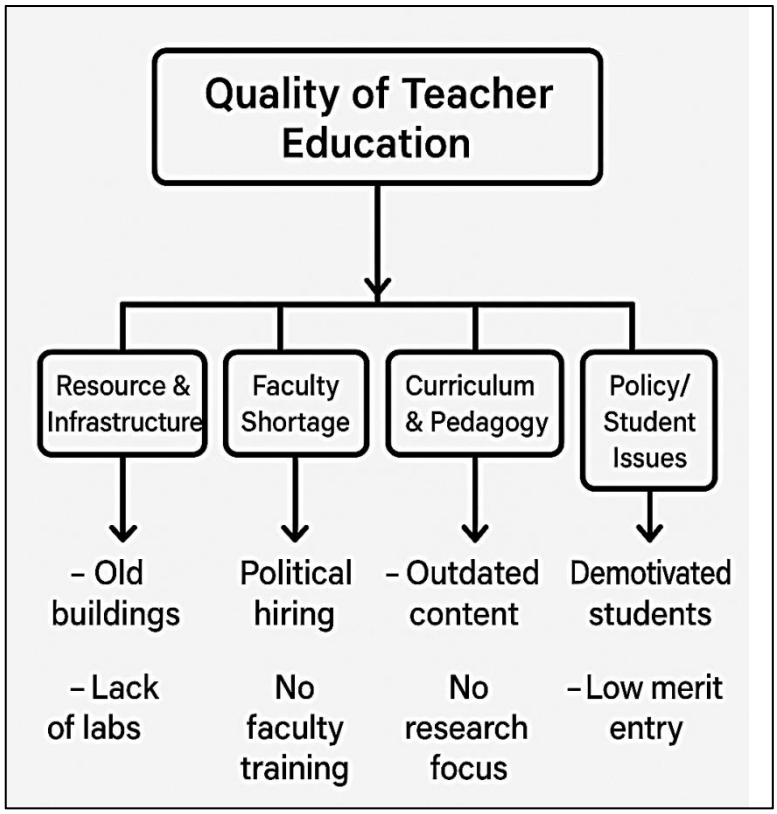


***Figure 2: Thematic Framework on Challenges Affecting Quality of Teacher Education***

The thematic map provides a visual framework for understanding the interconnected challenges affecting the quality of teacher education in Pakistan. At the core lies the overarching concern: *Quality of Teacher Education*, which branches into four critical domains—*Resource and Infrastructure*, *Faculty Shortage*, *Curriculum and Pedagogy*, and *Policy/Student Issues*. Under *Resource and Infrastructure*, concerns like outdated buildings and lack of laboratory facilities reflect the physical limitations that hinder effective learning environments. *Faculty Shortage* emphasizes systemic issues such as politically influenced hiring and the absence of continuous professional development, which compromise the competency of teacher educators. The *Curriculum and Pedagogy* segment highlights outdated course content and insufficient focus on research, indicating a gap between what is taught and what is required in modern classrooms. Finally, *Policy/Student Issues* encompass student-related problems such as lack of motivation and low entry standards, often linked to weak policy implementation and poor planning. Together, these interconnected themes reveal that improving teacher education quality requires a holistic approach that addresses both structural and academic shortcomings while aligning policy and practice with 21st-century educational demands.

**Table-2: Levels of Barriers Affecting Quality of Teacher Education at University Level**

| Category | Frequency | Percent | Mean | Standard Deviation |
|---|---|---|---|---|
| Low | 4 | 4.0 | 2.3200 | .54828 |
| Moderate | 60 | 60.0 | | |
| High | 36 | 36.0 | | |
| Total | 100 | 100.0 | | |

The table summarizes respondents' perceptions regarding the extent of barriers that affect the quality of teacher education at the university level, categorized into Low, Moderate, and High levels.

A majority of respondents (60%) perceive the barriers as being at a moderate level. This indicates that while challenges exist, they are not overwhelming but are still substantial enough to influence the overall quality of teacher education. Additionally, 36% of respondents rate the barriers as high, suggesting that more than one-third of participants believe these barriers have a serious impact on program quality. In contrast, only 4% perceive the barriers as low, indicating that few respondents view the environment as relatively free of significant obstacles. The overall mean score is 2.32, with a standard deviation of 0.55, reflecting a moderate level of perceived barriers affecting quality of teacher education at university level and indicating some variability in the responses within this group.

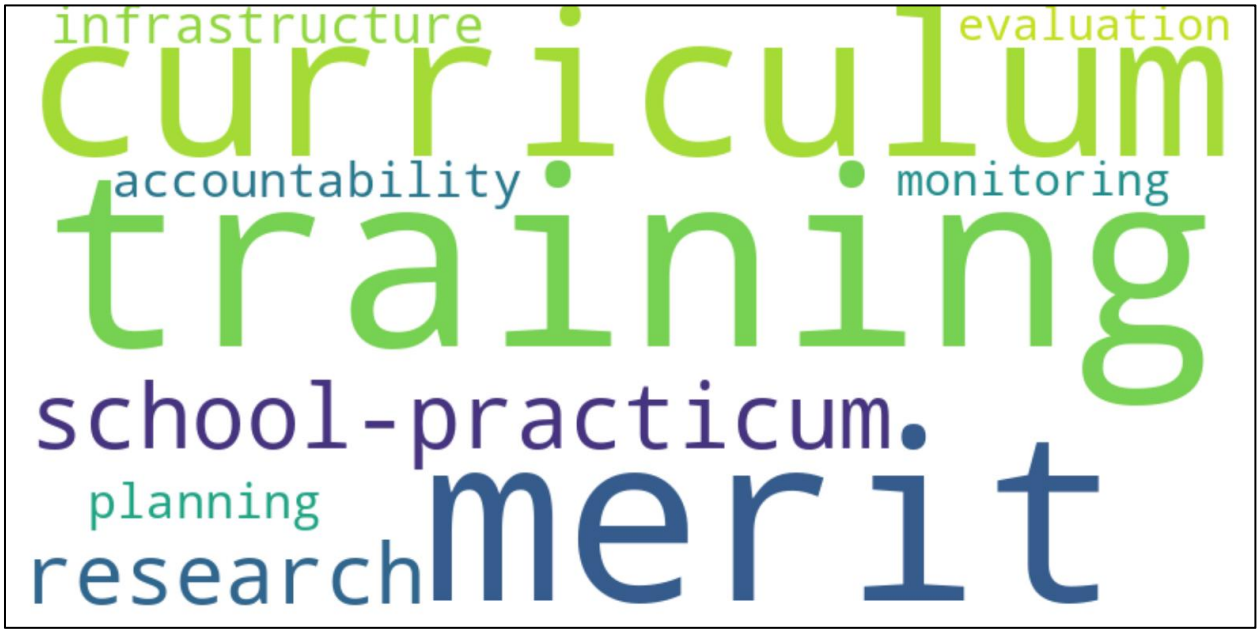


***Figure 3: Wordcloud on Proposed Suggestions for Improvements of Teacher Education Quality***

The word cloud visually highlights the most emphasized areas for improvement in teacher education as identified by the interviewees. Prominent terms such as "training," "merit," and "curriculum" indicate a strong consensus on the need for continuous professional development of teachers, merit-based recruitment, and updating academic content to meet modern educational standards. The significance of "school-practicum" underscores the importance of practical, hands-on experience in real classroom settings to better prepare future educators. Terms like "research," "planning," "monitoring," and "evaluation" reflect a call for systematic, evidence-based approaches to improving teacher education quality, with a focus on accountability and strategic oversight. Finally, "infrastructure" highlights the essential need for adequate physical and technological resources to support effective teaching and learning. Together, these key terms reveal a comprehensive approach that integrates professional growth, curriculum reform, practical training, and organizational improvements to enhance the overall quality of teacher education.

**Table-4: Frequencies of Recommendations for Improvement Regarding Teacher Education at University Level**

| | Frequency | Percent |
|---|---|---|
| Curriculum Modernization | 12 | 12.0 |
| faculty Development | 12 | 12.0 |
| Increase in funding and resources | 16 | 16.0 |
| Research integration into coursework | 35 | 35.0 |
| More practical teaching experience | 12 | 12.0 |
| use of modern teaching technologies | 13 | 13.0 |
| Total | 100 | 100.0 |

Table 4 presents the distribution of respondents' recommendations for improving teacher education at the university level, highlighting key areas identified for enhancement.

The most frequently recommended improvement is "Research integration into coursework", suggested by 35% of respondents. This indicates a strong perceived need to align teacher education programs more closely with research-based practices and to cultivate analytical and inquiry-oriented thinking among future educators. "Increase in funding and resources" was identified by 16% of respondents, emphasizing the importance of adequate financial and material support to enhance program quality. Other recommendations include;

use of modern teaching technologies (13%), curriculum modernization (12%), faculty development (12%) and more practical teaching experience (12%). These suggestions reflect a shared recognition of the need for technological advancement, pedagogical updates, improved instructor capacity, and increased hands-on training.

**Research Findings**

- The majority of respondents (62%) rated the teacher education programs at university level as being of *high quality*, while 35% considered them *moderate*. Only 3% perceived the programs as having a *low status*. With a mean score of 2.59, this indicates an overall *moderately favorable perception* of the existing programs. However, qualitative responses suggest this optimism is tempered by systemic and structural issues that require attention.
- A significant portion of respondents (60%) viewed the barriers affecting quality as *moderate*, and 36% considered them *high*, indicating that while teacher education is perceived positively in some areas, *substantial challenges persist*. Thematic and visual analyses highlighted key barriers such as:
    - Shortage of qualified and trained faculty.
    - Outdated curricula misaligned with classroom realities.
    - Inadequate infrastructure and learning facilities.
    - Weak administrative support and poor policy implementation.
    - Low student motivation and insufficient entry standards.
- Despite favorable perceptions of program status, the analysis indicates *limited effectiveness* in fully preparing prospective teachers for contemporary classroom demands. Factors undermining effectiveness include:
    - Weak integration of theory with practical experience.
    - Insufficient use of modern technologies and digital pedagogy.
    - Limited research orientation and reflective practices.
    - Inconsistent practicum experiences and poor mentorship systems.
    - Faculty development and program monitoring remain inadequate, resulting in variable learning outcomes and preparedness among teacher candidates.

- The research generated a strong set of actionable recommendations, based on both qualitative interviews and quantitative suggestions. Key proposed improvements include:
    - Research integration into coursework (35% of responses), emphasizing the need to develop reflective and inquiry-based practices.
    - Increased funding and resources (16%) to upgrade facilities and ensure resource availability.
    - Modernization of curriculum, faculty development, and use of modern teaching technologies (each around 12–13%), reflecting the demand for pedagogical and technological innovation.
    - Enhanced school-based practicum experiences to better bridge the gap between theory and practice.

**Conclusion**

The study *"Quality of Teacher Education: Challenges and Prospects at University Level"* provides a comprehensive analysis of the current state, challenges, and future directions of teacher education programs in Pakistan's universities. The findings reveal that although the majority of respondents perceive the existing teacher education programs as generally effective, deeper examination uncovers significant issues that compromise overall quality. These include outdated curricula, lack of qualified faculty, inadequate infrastructure, limited practical training opportunities, and weak administrative and policy frameworks.

Despite these challenges, there is a clear recognition of the potential for improvement through targeted reforms. Recommendations such as integrating research into coursework, modernizing curricula, strengthening faculty development, expanding the use of digital teaching tools, and improving practicum experiences reflect a shared vision for a more dynamic and responsive teacher education system. The study concludes that enhancing the quality of teacher education at the university level requires a holistic approach—one that combines curriculum innovation, institutional capacity building, rigorous quality assurance, and alignment with contemporary educational needs. Strengthening teacher preparation is essential not only for classroom effectiveness but also for achieving broader national education goals and sustainable development targets.

**Recommendations**

- Modernize the Curriculum: Update teacher education curricula to align with contemporary classroom needs, digital pedagogy, and 21st-century skills.
- Enhance Faculty Development: Implement continuous professional development programs to improve teacher educators' expertise in innovative teaching methods.
- Strengthen Practicum and School Linkages: Ensure meaningful, supervised school-based teaching experiences to bridge the gap between theory and practice.
- Integrate Research into Coursework: Promote research-based learning by embedding action research and reflective practices within teacher training programs

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