

Pre-Service Teachers' Perceptions of Pedagogical Skills Learned During Teacher Education Program

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Abstract

This quantitative study investigated pre-service teachers' perceptions of the pedagogical skills learned during their teacher education program. A survey was conducted with 100 pre-service teachers enrolled in B.Ed. programs at one public and private university each in a district of Punjab province. Data was gathered using a 26-item self-developed questionnaire with responses measured on a 5-point Likert scale. The Cronbach's alpha reliability for the scale was calculated as 0.735. Data was analyzed through SPSS 20. An independent samples t-test revealed a significant difference between male and female pre-service teachers' perceptions of pedagogical skills learned, with females having more positive perceptions. However, there was no significant difference found between public and private university pre-service teachers. Globalization and technological advancements necessitate reforms in education systems to meet 21st-century needs. Teachers facilitate the implementation of policies and curricula to nurture students' knowledge, skills, and values. Teacher education plays a vital role in developing competent educators. A Modelling best practices in teaching and integrating current trends can improve pre-service preparation. Participants indicated overall positive views of pedagogical skills training in their programs. Females were slightly more affirmative about skills gained. The study suggests teacher education curriculum and instruction may benefit from greater emphasis on honing pedagogical competencies to address evolving societal changes. Further research on specific areas needing improvement would inform refinements. Enhanced pre-service preparation will empower future teachers to capably shape new generations.

Keywords: Pre-Service Teachers, Pedagogical Skills, Teacher Education, Perceptions, Teacher Preparation

1. Introduction

Globalization has led to significant changes in social, political, and economic spheres across all countries due to the use of compact technology for immediate manufacturing and widespread service. These changes are changing the ways of social interaction. The educational system, like other social systems, must adapt to meet the needs of a 21st-century information society. This

requires training individuals who are creative, critical thinkers, inquisitive, problem solvers, and constructive. Therefore, new reforms are required in the educational system's mechanisms and functions (Yuksel, 2012). The Information age requires societies that reflect changing conditions and become more linked than ever before, driven by technical advancements and social transformation. As society evolves, cognitive abilities such as effective communication, cultural awareness, interaction, transnational proficiency, and solution-focused thinking become more crucial (Yilmaz, 2017). Humans differentiate themselves from other living organisms by being conscious of their ability to learn. Learning fosters self-awareness, strength, and virtue. Learning is essential for a fulfilling existence. People have historically placed a high value on the resources from which they have learned. This paradigm prioritizes continuous knowledge and learning, which has shaped science, civilization, values, and the human experience. Curriculum, teachers, and students are the three key components that shape the educational system's functions and operations. Teachers are accountable for instilling desired behaviors in students and implementing school curricula to generate quality persons for society and transformation. The teacher is responsible for implementing education policies and adapting them based on student performance. To have an impact on the profession, teacher educators must model proper behaviors that can be observed, altered, duplicated, internalized, and used by learners of all levels and types. Modeling indicates displaying behavior that is seen and represented by others (Kauchak & Eggen, 2020). Successful teacher education programs at both the pre-service and in-service levels rely on the effective modeling of desirable practices. Teachers serve as effective role models for students at all levels, and their actions impact both learning and motivation (Bandura, 1992). Modeling behavior impacts teaching, service, and intellectual production. To effectively implement these behaviors, teacher educators must follow research-based best practices. Teaching is a highly valued profession that passes on social ideals to future generations and serves as a relationship between knowledge seekers and those in need.

Teacher educators play a crucial role in assisting pre-service and in-service teachers in successfully implementing cultural competency concepts in their classrooms. They not only understand the definitions of cultural competency but also demonstrate their own and their students' application of these concepts. Knowledge building is the main aspect of teaching. Concept mapping is found to be effective in knowledge building (Ouyang et al., 2021). Effective teaching of information within particular aims is essential for gaining strength and dignity as a nation and maintaining an efficient social organization. It renders the idea of education and teaching essential to civilizations. Education has multiple objectives, including socialization, conveying values to future generations, and fostering personal growth through skill development opportunities. Education provides individuals with the necessary knowledge, skills, and attitudes to contribute to society, live fulfilling lives, and excel at their professions. The effectiveness of education systems is largely dependent on the competency of teachers. Improving teacher qualifications is the primary strategy for improving learning outcomes in a country. Training qualified teachers is crucial for the education system, as they initiate, develop, and implement education.

To build capacity among culturally, socioeconomically, and bilingual pupils, teachers should first understand their own cultures. Teachers must have high expectations for all students, understand developmental levels and differences between groups, engage with communities and families to learn about their cultures, choose inclusive curriculum resources, employ a variety of assessment methods, and be proficient in instructional techniques to help all learners acquire content knowledge. Adapting education to culturally diverse learning methods improves students' social and academic outcomes (Gay, 2005). Successful teacher educators embrace and interpret current

educational trends to help pre-service and in-service teachers understand and integrate them into their practices.

Educators with expertise in history, education, research, and technology should lead the discussion on the value of content for future generations. A major factor is the growing impact of globalization on education (Friedman, 2005). Historically, education has reflected societal changes rather than driving them. Successful teacher educators recognize their position as change agents, appreciate the influence of education on instructional strategies, and are the initial adopters of innovative learning configurations. Teacher educators have a crucial role in driving educational progress (Rogers, 2003).

Teacher educators are responsible for active participation in professional organizations at the local, state, and national levels. These affiliations provide a platform for professional identity and support, enhancing the teacher education profession. Joining associations of professionals strengthens teacher education. Effective teaching requires both great pre-service education and ongoing professional development. Pedagogy has been focused on critical thinking skills development which is the need of the 21st century. In the Pakistani context, different studies are focusing on critical thinking regarding pedagogy in different studies (Jamil et al., 2023; Jamil et al., 2021). Pakistan has implemented structural and educational reforms to improve the quality of education, including pre-service and in-service teacher education, in response to social developments and international trends. The current study explored pre-service teachers' pedagogical skills learned during their teacher education program.

2. Objectives of the Study

1. To assess pre-service teachers' perceptions of the pedagogical skills learned during their teacher education program.
2. To examine if there are differences in perceptions between pre-service teachers regarding pedagogical skills gained based on gender and sector.

3. Research Questions

1. How do pre-service teachers rate their overall preparation in pedagogical knowledge and skills after completing their education program?
2. Is there a significant difference between pre-service teachers' perceptions of the pedagogical competencies learned during teacher training based on gender and sector?

4. Literature Review

Teacher quality is an important determinant of student outcomes (Darling-Hammond, 2000). Thus, high-quality teacher preparation that develops strong pedagogical skills is essential. Research shows teacher education coursework and field experiences facilitate growth in aspects of pedagogical knowledge. Ozer (2013) surveyed 89 preservice teachers to assess perceived improvement over a 4-year program. Participants felt moderate to strongly prepared in lesson planning skills, ability to use instructional methods, classroom management, and measurement and evaluation. However, perceived readiness for teaching subject area content, conducting instruction via activities, and teaching based on individual differences was lower (Ozer, 2013). A study by Uygun and Mehmet (2019) explored the perspective of pre-service teachers studying the history of pedagogical formulation education. It was a phenomenological study. Pedagogical formation education was found to be useful and its continuation was suggested. Another study was conducted by Al-Jaro (2023) to explore the teaching practice of English as a Foreign Language (EFL) student teachers during a practicum course. According to the findings, there were three areas lesson planning, classroom management, and teaching strategies as pedagogical practice issues. It was concluded that the EFL professional teaching practice should involve the incorporation of three

elements. Chen et al. (2012) also established links between field experience observations of competent teaching and higher perceived preparation for using pedagogical content knowledge. Challenging aspects of teaching, like differentiation and technology integration, are additional areas preservice teachers recognize needing more exposure to. Genc et al. (2016) found they felt least prepared for managing inclusive classrooms and insufficiently supported to design lessons personalizing learning. Researchers emphasize intentionally bridging theory and practice in teacher education to boost pedagogical readiness (Darling-Hammond, 2000). Teacher educators model are research-based methods that provide more hands-on experiences applying concepts. Embedding opportunities to analyze teaching can also deepen reflective skills and knowledge of practice (Ward & McCotter, 2004). Other recommendations include greater emphasis on diversity training, technology usage, and differentiation.

The teacher education program in Pakistan aims to equip pre-service teachers with essential pedagogical skills and content knowledge required for the teaching profession. Recent research provides some recommendations for improving existing teacher education programs. Equipping pre-service teachers with sound conceptual knowledge and inquiry-based teaching practices can boost their confidence (Halai & Durrani, 2018). There is also a need to align practicum opportunities with university coursework to promote coherence between theory and practice (Khan & Saeed, 2009). Formal and informal cooperation between schools and universities can help design responsive training that meets pre-service teachers' learning needs. More qualitative, longitudinal studies tracking teacher graduates are necessary to examine how their perception of readiness translates into actual teaching competence and career growth.

There are some recent studies in an international context. A study conducted by Hughes et al. (2020) examined the pedagogical reasoning and technological knowledge underlying preservice and in-service teachers' most valued technology-supported instructional activities. Overall, this study provides insight into how teachers reason about and apply technological knowledge in instructional activities at different career stages. Another study conducted by Qiu et al. (2022), explored an understanding of pre-service teachers about Teachers' pedagogical and content knowledge (TPACK) about teaching Chinese as a second language (TCSL). Teachers' slight satisfaction was found with overall TPACK. In another study, pre-service teachers' perceptions were explored regarding barriers to their efforts in promoting critical thinking skills in classrooms. Teachers' pedagogical content knowledge has been explored also at the elementary level (Jamil et al., 2024). The study suggests changes in teaching methods and courses offered in teacher preparatory programs (Khalid et al., 2021). In another study, blended learning approaches were explored to be effective for academic achievement regarding pre-service teachers. Being an experimental study, the experimental group was found to be significant regarding academic achievement through blended learning (Şentürk, 2021). In the same way, another study explored Preparation of Pre Service Teachers' English Proficiency and Pedagogy from EFL teacher education program (Hadi, 2019).

5. Research Methodology

It was quantitative research employing a survey research design that is used to get the opinion of the participants about the particular research topic and the main objectives of this design are to define the basic characteristics of a specific population. Mostly it is used to apply to a large population or for generalization to be made about a particular selected variable (Chen et al., 2012). The population is the large group of individuals to whom we generalize our results. The population of this research was the pre-service teachers enrolled in B.Ed. program of one public and one private university in the district of Lahore. It was not possible to select the sample randomly.

Therefore the purposive sample was used as a sample technique. A convenient sample technique was deployed by the researcher. 100 pre-service teachers were selected from public and private universities. Data was collected through a questionnaire. Likert scale data was analyzed using SPSS ver.22, which comprises descriptive and inferential statistics such as mean score, Std. Deviation, and t-test. The tool was as reliable as the Cronbach Alpha. The reliability of the questionnaire was 0.735.

Table 1: Mean and standard deviation and reliability coefficient

Respondent	Mean	SD	No of Items	Cronbach's Alpha
100	119.50	26.44	26	0.735

The above table reveals the total number of respondent (N) along with their mean score value (M) and deviation (SD) with Alpha Cronbach's reliability (α)

6. Findings of the Study

The findings of the study are as follows:

Table 2: Comparison of the pre-service teachers' perceptions about pedagogical skills learned during teacher education program based on gender

Gender	N	Mean	SD	Df	t	sig
Male	30	56.10	11.57	98	1.829	0.071
Female	70	61.31	13.64			

To investigate significant mean score differences between male and female pre-service teacher's perceptions of pedagogical skills. The result of the above table reveals that there is a significant difference between male and female pre-service teacher opinions about pedagogical skills, independent sample t-test was applied. The result is $t(1.829) p < 0.05$. So, there is a significant difference in the mean score of male and female university teachers' perceptions of pedagogical skills.

Table 3: Comparison of the pre-service teachers' perceptions about pedagogical skills learned during teacher education program based on sector

Sector	N	Mean	SD	Df	t	sig
Public	47	58.97	15.48	98	.547	0.585
Private	53	60.43	10.93			

The above table describes the mean score differences between male and female pre-service teacher's perceptions of pedagogical skills during their teaching education program. The result of the above table reveals that there is no significant difference between male and female pre-service teacher opinions about pedagogical skills, an independent sample t-test was applied. The result is $df(98), t = .547, p > 0.05$. So, there is no significant difference in the mean score of male and female university teachers' perceptions of pedagogical skills.

7. Conclusion

This quantitative study explored 100 pre-service teachers' perceptions of the pedagogical competencies gained through their teacher education program at either a public or private university in the Lahore district. Overall, the B.Ed. students surveyed positively rated the development of pedagogical knowledge and skills from their coursework and field experiences. However, some gaps in preparation were indicated. A significant difference was found between male and female participants' views of abilities acquired. Female pre-service teachers reported higher perceived readiness across instructional areas examined. Yet, there was no notable difference based on completing training at either a public or private institution. Participants specified strengths in cultivating general lesson planning, methodology, classroom management,

and measurement skills. Applying subject knowledge during teaching, using activities, and differentiating for learner needs were conveyed as more challenging. However, investigating the reasons behind this discrepancy merits further exploration rather than assumptions. Teacher educators must strategically foster specific skill sets pre-service programs seem to fall short of, like technology integration and personalization. Enhancing areas related to subject mastery and practical application could drastically bolster teacher quality (Ozer, 2013). Embedding analytical reflection and scaffolds for processing experiential learning is also key (Ward & McCotter, 2004). Redesigning components to simulate authentic classroom contexts will strengthen relevance. Pre-assessing knowledge gaps to differentiate training by individual needs allows for precision. Collaborating with schools and policymakers around aligned expectations for real-world teaching could have a significant impact. Further research surveying the realities of early career teaching would provide additional perspective. While pre-service education appears relatively successful at instilling baseline instructional skills, persisting blindspots limit complete readiness. Tailoring preparation to demonstrate vulnerabilities better equips teachers with the intricacies of practice. Continual self-evaluation and dialogue with the field reinforce responsiveness. As societal needs accelerate, so must teacher capacity to keep pace through flexible, comprehensive, competency-based training models rooted in research. The future of the nation rides on sufficiently empowering educators guiding it.

8. Discussion

Social life is changing faster and more frequently than at any other time in history. The rapid spread of human knowledge over the world is a major contributor to this shift. The phrase "We live in the age of change" refers to the rapid changing of knowledge. Economic, social, and cultural factors, as well as technological advancements, have led to significant changes in society throughout history. Technological advancements have had a profound impact on economic development, social structure, and human lives (Yilmaz, 2017). Teachers today face increased duties due to evolving educational demands, new definitions of education, differentiated student needs, and innovative methods of individual education. Teaching is viewed as a vocation requiring sophisticated competencies to fully carry out human life responsibilities. Teachers must be open to ongoing learning and improvement. The results of this study provide valuable insights into pre-service teachers' perceptions of the pedagogical competencies developed through their teacher preparation programs. The overwhelmingly positive views of skills acquisition across areas like lesson planning, classroom management, and assessment indicate that existing curriculum and fieldwork components effectively build fundamental instructional capabilities. However, gaps identified in implementing practices like differentiation and technology integration demonstrate a need for targeted enhancements to ensure comprehensive readiness for multifaceted demands. The significant difference found in perceptions between genders builds on prior evidence that the growing presence of female educators strengthens teacher quality and student achievement (Ward & McCotter, 2004). Yet assuming superior preparation solely tied to gender risks oversimplifying complex interrelationships between teacher identity, efficacy, behaviours, and institutional culture. Further probing the reasons behind more favorable perspectives from female participants could spur constructive dialogue on biases in training experiences or career impediments requiring redress. The lack of notable perception differences between public and private institutions seems promising for the standardization of key competencies across programs. However, with the sample limited to universities in Lahore, generalizing uniform skill development throughout Pakistan's decentralized education system may overlook qualitative or regional variances. Exploring potential resource access disparities and localized priorities could provide context to better interpret the

consistently reported confidence. Situating outcomes within Pakistan's contemporary teacher reform efforts should also garner consideration. As standards and accountability measures continue aligning preparation to practice under comprehensive federal initiatives, a replication study further into implementation would indicate impacts on perceived as well as actual abilities. Longitudinal data could confirm early positive indicators while steering ongoing adjustments responsive to field realities. In the rapidly evolving landscape of 21st-century teaching, the cultivation of adaptable, reflective pedagogical thinking across knowledge areas ensures transferability amid changing contexts. The discussed gaps suggest a need to embed metacognitive skills building more holistically throughout programs. Scaffolding teacher candidates to consciously bridge barriers between theory and practice before entering classrooms independently will empower proactivity in precipitating growth - for both students and themselves.

9. Recommendations

Based on the findings and conclusions, the following were the recommendations of the study.

1. Strengthen integration of subject matter content into methods courses and fieldwork to improve pre-service teachers' confidence in their ability to effectively teach content.
2. Prioritize explicit training in differentiation strategies and designing developmentally appropriate activities tailored to varying learner needs.
3. Embed consistent technology skill building and modeling of tech integration across the teacher training curriculum.
4. Intentionally facilitate more reflective analysis of teaching scenarios and pre-service teachers' practice.
5. Foster opportunities to collaborate with mentor teachers and administrators to better understand real-world classroom contexts new teachers will enter.
6. Conduct ongoing evaluation of teacher education curriculum, fieldwork design, and instructional approaches focused on outcomes demonstrating functional readiness.

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