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From Policy Commitment to Pedagogical Readiness: Inclusive Education in Pre-Service Teacher Preparation in Pakistan

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Abstract
Inclusive education depends not only on policy commitments but also on whether teacher education programmes prepare future teachers to respond to learner diversity. This study examined inclusive education in pre-service teacher preparation at four institutions in Rawalpindi Division and Islamabad Capital Territory, Pakistan. A convergent mixed-methods design combined surveys of 500 prospective teachers and 50 faculty members/programme administrators, interviews with the same 50 institutional stakeholders, and analysis of more than 25 policy, curriculum and institutional documents. Quantitative findings were analysed descriptively; interviews and open-ended responses were analysed thematically and interpreted alongside documentary evidence. Among prospective teachers, 60.0% disagreed or strongly disagreed that teacher educators adequately emphasised inclusive education, and 60.0% disagreed or strongly disagreed that they had sufficient hands-on experience in inclusive settings. A further 84.6% were concerned about lacking the knowledge and skills required to teach learners with disabilities or special educational needs. Among faculty members and administrators, 70.0% rated curriculum coverage as inadequate or somewhat adequate, and 72.0% rated preparation for inclusive classrooms as poor or very poor. Interviews identified resource constraints (90.0%) and curriculum limitations (84.0%) as prominent concerns. Although existing preparation and professional-development opportunities were viewed as limited, faculty members and programme administrators expressed willingness to receive training. The findings indicate a policy-to-practice gap in the participating institutions and suggest the need for explicit graduate competencies, sustained faculty development, supervised practicum partnerships and institutional accountability. The purposive selection of four institutions limits national generalisation.

Keywords: *inclusive education; pre-service teacher education; teacher preparedness; mixed-methods research; Pakistan; curriculum reform*

1. Introduction

Inclusive education is increasingly understood as a system-wide commitment to equitable access, meaningful participation and learning for all students, rather than the simple placement of learners with disabilities in mainstream classrooms. International frameworks, including the Salamanca Statement,

Sustainable Development Goal 4 and the Convention on the Rights of Persons with Disabilities, establish a normative basis for inclusive and equitable education (UNESCO, 1994, 2015; United Nations, 2006). Translating these commitments into practice, however, requires changes in curriculum, pedagogy, assessment, institutional support and teacher preparation. Policy declarations alone cannot ensure that teachers can plan accessible lessons, differentiate instruction, adapt materials or collaborate with specialist professionals.

Teacher education is therefore a critical point of intervention. Pre-service programmes shape the knowledge, professional beliefs and practical repertoires that prospective teachers carry into schools. Research on teacher efficacy suggests that confidence in teaching diverse learners is related to teachers' perceptions of their ability to implement inclusive practices, although confidence should not be treated as a direct measure of demonstrated competence (Tschannen-Moran & Woolfolk Hoy, 2001; Sharma et al., 2012). Research also highlights the importance of teacher attitudes, structured professional development and opportunities to practise inclusive strategies (Shaukat et al., 2013; Waitoller & Artiles, 2013).

In Pakistan, inclusive education operates within a diverse policy and institutional environment. Previous research and sectoral reports have identified barriers that include limited teacher preparation, inadequate resources, inaccessible learning environments, social stigma and gaps between policy intent and implementation (UNICEF, 2015; Pasha et al., 2021; Singal, 2019; Virani & Ali, 2022). These challenges should not be reduced to an individual teacher's willingness to include learners. They also reflect the curriculum and institutional conditions under which teachers are prepared and supported. Teacher education institutions are consequently important sites for examining whether inclusive education is embedded in programme design and practice, or remains a general principle with limited operational guidance.

This article draws on a mixed-methods study of pre-service teacher education in four institutions in Rawalpindi Division and Islamabad Capital Territory. It focuses on the relationship between formal curriculum coverage, practical exposure, perceived preparedness and the institutional conditions identified by prospective teachers, faculty members and programme administrators. Its contribution is an integrated, locally grounded account of how the policy-to-practice gap is experienced across stakeholder groups and reflected in programme documents. It does not claim to represent all teacher education institutions in Pakistan, nor does it assess actual classroom performance through direct observation. In this article, "pedagogical readiness" refers to prospective teachers' perceived preparation, opportunities for supervised practice, and programme-level support for teaching diverse learners; it is not treated as a direct measure of demonstrated classroom competence.

Research questions

The study addressed three questions:

- How is inclusive education incorporated into the pre-service teacher education programmes examined?
- What curriculum, institutional and socio-cultural challenges do prospective teachers, faculty members and programme administrators identify?

- Which strategies do participants consider promising for strengthening inclusive education in pre-service teacher preparation?

2. Literature and theoretical framing

2.1 From formal inclusion to meaningful participation

Inclusive education requires more than physical access or general statements of commitment. It involves identifying and reducing barriers to participation and learning, adapting teaching and assessment, and building institutional cultures that recognise learner diversity (Ainscow, 1999; UNESCO, 2017). A recurring concern in the literature is that inclusive education may be acknowledged at policy level without being translated into specific curriculum requirements, assessment standards, accessible resources or sustained professional learning. In such circumstances, implementation depends heavily on individual staff members and may vary across programmes or institutions.

Teacher preparation is central because inclusive practice draws on a combination of conceptual knowledge, pedagogical skill, reflective judgement and collaboration. Prospective teachers need opportunities to understand learner diversity, design differentiated learning activities, adapt instructional materials and work with families and specialist professionals. Professional development research cautions that isolated training events are unlikely to produce sustained change unless they are connected to institutional priorities, collaborative learning and opportunities to apply new practices (Waitoller & Artiles, 2013).

2.2 Teacher confidence, practical experience and institutional support

Perceived self-efficacy can influence whether teachers believe they can organise and deliver instruction for diverse learners, but confidence is not interchangeable with competence. A teacher may support inclusion in principle while feeling unprepared to adapt resources or manage a classroom with varied learning needs. Conversely, a lack of confidence may reflect realistic concerns about inadequate training, limited support staff or insufficient access to appropriate materials. Studies of pre-service teachers have therefore examined attitudes and self-efficacy as related but distinct dimensions of preparation (Sharma et al., 2012; Shaukat et al., 2013).

Practical experience can help bridge the distance between theoretical knowledge and classroom decision-making. Supervised placements, case studies, collaborative lesson planning and contact with experienced inclusive educators can allow prospective teachers to observe and test strategies in context. Such opportunities are most useful when learning outcomes are explicit and practicum experiences are supported by feedback and reflection. Where inclusive settings are not included in placement arrangements, trainees may complete a practicum without meaningful experience of adapting teaching for learners with disabilities or other support needs.

2.3 Diffusion of Innovation as the interpretive lens

The study uses Rogers' Diffusion of Innovation (DOI) theory as a sensitising interpretive framework rather than a causal model or a fully operationalised measurement framework. The relevant innovation is not inclusion as a value alone, but its practical incorporation into teacher-education curricula, teaching methods, practicum and institutional routines. The findings are discussed cautiously in relation to relative advantage, compatibility, complexity, trialability and observability. The study did not test these constructs statistically or establish adoption causality.

DOI is used to organise interpretation of the conditions that may facilitate or impede institutional adoption. The descriptive surveys, interviews and document review can identify patterns relevant to DOI attributes, but cannot establish that a particular attribute caused or prevented adoption. Curriculum fit is interpreted cautiously through compatibility; concerns about knowledge, workload and resources through perceived complexity; practicum opportunities through trialability; and opportunities to observe effective teaching through observability. Relative advantage is discussed only where participant beliefs provide relevant evidence. These are interpretive connections, not validated DOI subscale scores.

3. Methodology

3.1 Design and setting

The research adopted a convergent parallel mixed-methods design within a pragmatic orientation (Creswell & Creswell, 2018; Creswell & Plano Clark, 2017). Quantitative and qualitative evidence was collected within the same overall study period, analysed separately and brought together during interpretation. The study was conducted between 2022 and 2024 in four institutions offering pre-service teacher education in Rawalpindi Division and Islamabad Capital Territory: the International Islamic University Islamabad, Pir Mehr Ali Shah Arid Agriculture University, Fazia Bilquis College of Education for Women, Chaklala, and the National University of Modern Languages. The institutions were selected purposively to include variation in public/private status, size and gender composition.

3.2 Participants and sampling

The quantitative component included 500 prospective teachers enrolled in the final three semesters of BS Education or B.Ed. programmes and 50 faculty members and programme administrators. The thesis reports that these were the eligible populations across the four participating institutions and that all eligible individuals were invited and completed the respective survey, giving a reported 100% response rate within those defined groups. The student sample comprised 250 participants from the International Islamic University Islamabad (IIUI), 90 from Pir Mehr Ali Shah Arid Agriculture University (UAAR), 20 from Fazia Bilquis College of Education for Women, and 140 from the National University of Modern Languages (NUML); 345 participants were women and 155 were men. This is a census of eligible individuals within the selected institutions, not a probability sample of teacher-education institutions nationally. The institutions themselves were selected purposively, so findings should not be generalised statistically beyond the study setting.

The qualitative component comprised semi-structured interviews with 50 faculty members and programme administrators: 35 faculty members and 15 administrators. These were the same institutional stakeholder group represented in the second survey. Administrators included heads or chairpersons of education departments, programme coordinators, deans and directors. Prospective teachers were not interviewed; their views were captured through the student questionnaire and its open-ended responses. This design provides institutional perspectives but limits the depth of direct qualitative evidence about trainees' individual experiences.

3.3 Instruments and data sources

Two questionnaires were used: one for prospective teachers and one for faculty members and administrators. Items covered curriculum emphasis, inclusive teaching methods, practical experience, resources, preparedness and perceived implementation challenges. The instruments were reviewed by

subject experts and piloted before the main data collection. The thesis reports pilot samples of 29 prospective teachers and 10 faculty/administrator respondents. Cronbach's alpha was reported as .994 for the 26-item student instrument and .943 for the 12-item faculty/administrator instrument. These values indicate very high internal consistency, although the unusually high coefficient for the student instrument may also indicate item redundancy; alpha alone does not establish validity.

Semi-structured interviews explored understandings of inclusive education, curriculum limitations, resource constraints, social and cultural attitudes, policy implementation, faculty expertise, assessment and possible reforms. The study also reviewed relevant policy documents, curriculum guidelines, programme outlines and institutional materials. These sources were used to compare stakeholder perceptions with the formal articulation of inclusive education in policy and programme documentation.

3.4 Data collection and analysis

Data collection took place from 2022 to 2024. Surveys were administered using paper-based questionnaires, and interviews were conducted face-to-face with faculty members and programme administrators. Quantitative findings are reported primarily as frequencies and percentages. Although the thesis includes some broader statistical discussion, this article presents descriptive findings only and does not report inferential tests, correlations or regression estimates. Interview and open-ended responses were organised thematically, while documentary analysis examined the presence and specificity of inclusion-related commitments, competencies, assessment expectations, practicum requirements and institutional provisions. The thesis describes review of more than 25 documents, including national and provincial policy materials, curriculum frameworks, institutional regulations, programme handbooks, course specifications, teacher-education guidelines and other institutional records. The thesis does not provide a complete itemised inventory in the article materials; accordingly, the analysis is reported at the category and criterion level rather than attributing findings to unnamed individual documents. The three strands were analysed separately and then integrated through comparison of convergent and complementary patterns.

3.5 Ethical considerations

The study received approval from the Research Committee of Alhamd Islamic University in January 2022. Written permissions were obtained from the participating institutions. Participation was voluntary; survey completion and return were treated as consent, and written informed consent was obtained for interviews.

4. Findings

4.1 Prospective teachers reported limited curriculum emphasis and practical exposure

The student survey indicated that inclusive education was not consistently visible in the training experience of many respondents. Sixty per cent either disagreed or strongly disagreed that teacher educators adequately emphasised inclusive education practices; only 3.0% agreed or strongly agreed. Similarly, 50.4% disagreed or strongly disagreed that teacher educators focused on a variety of teaching methods for inclusive classrooms, while 14.0% agreed or strongly agreed. A further 54.6% disagreed or strongly disagreed that adequate attention was given to creating supportive classroom environments.

Practical experience was a particularly clear concern. Sixty per cent disagreed or strongly disagreed that teacher educators facilitated hands-on experiences in inclusive educational settings; only 9.2% agreed

or strongly agreed. In addition, 57.8% disagreed or strongly disagreed that teacher educators collaborated with specialists to broaden inclusive teaching, and 55.4% disagreed or strongly disagreed that adequate learning materials for inclusive classrooms were provided. Taken together, these responses suggest that inclusive education was not consistently translated into modelling, specialist collaboration and practical opportunities within the programmes examined.

Table 1. Selected responses from the prospective-teacher survey

Student survey indicator (n = 500)	Disagree/strongly disagree	Neutral	Agree/strongly agree
Teacher educators adequately emphasise inclusive education practices	60.0%	37.0%	3.0%
Teacher educators facilitate hands-on experience in inclusive settings	60.0%	30.8%	9.2%
Teacher educators collaborate with specialists for inclusive teaching	57.8%	36.0%	6.2%
Adequate learning materials are provided for inclusive classrooms	55.4%	28.8%	15.8%
Teacher educators focus on varied methods for inclusive classrooms	50.4%	35.6%	14.0%
Inclusive education benefits all students, including students with disabilities	60.2%	35.2%	4.6%

Note. Percentages are taken from the thesis tables and are reported descriptively. Neutral responses are shown where calculated from the complete five-point response distribution; categories are not combined into a single scale. The final item wording should be checked against the original questionnaire before submission.

4.2 Perceived preparedness remained a concern despite recognition of inclusion's value

The strongest preparedness-related signal was the level of concern about knowledge and skills. A total of 84.6% of prospective teachers agreed or strongly agreed that they were concerned about lacking the knowledge and skills required to teach students with disabilities or special educational needs; 15.4% were neutral and no respondent disagreed with the statement. The thesis also reports that 61.4%

perceived limited knowledge of inclusive education principles, 61.0% reported a lack of confidence in adapting teaching materials, and 62.4% expressed negative feelings toward teaching in inclusive classrooms. These measures capture self-reported perceptions and should not be interpreted as direct assessments of teaching competence.

Attitudes toward the benefits of inclusion were not uniformly positive. On one item, 60.2% disagreed or strongly disagreed that inclusive education benefits all students, including students with disabilities, while only 4.6% agreed or strongly agreed; on a related item about benefits regardless of ability or background, 60.0% disagreed or strongly disagreed and 4.0% agreed. These responses suggest scepticism or uncertainty about the benefits of inclusion among many respondents, alongside concern about their own preparation. The findings therefore point to a dual challenge: teacher education must build practical capability while also supporting evidence-informed understanding of inclusive education.

4.3 Faculty and administrators corroborated curriculum and preparedness concerns

The second survey produced a broadly consistent institutional picture. Seventy per cent of faculty and administrators rated the coverage of inclusive education concepts in teacher preparation as either inadequate (30.0%) or somewhat adequate (40.0%). Seventy per cent reported that practical training addressed inclusive teaching methods not at all or only to a small extent. When asked to rate the overall effectiveness of current preparation for inclusive classrooms, 72.0% selected poorly (58.0%) or very poorly (14.0%); 26.0% selected average and 2.0% selected very well.

When respondents identified the main challenges to integration, the most frequent responses were limited inclusion of theoretical and practical knowledge (22.0%) and lack of faculty expertise (22.0%). Insufficient administrative support was selected by 12.0%, limited exposure by 10.0%, and lack of resources and lack of professional development by 8.0% each. These results indicate that participants did not describe the problem solely as a lack of student motivation; they also pointed to curriculum design, faculty capacity and organisational conditions.

4.4 Interviews highlighted resource constraints and curriculum limitations

The 50 interviews provided additional detail on the institutional context. Curriculum limitations were identified by 42 interviewees (84.0%), and resource constraints by 45 (90.0%). Thirty-eight interviewees (76.0%) highlighted limited understanding of inclusive education, while 36 (72.0%) identified social or cultural attitudes as a challenge. Policy implementation gaps were noted by 40 interviewees (80.0%). These counts indicate how often a theme was identified in the interview analysis; they should not be read as population estimates or as evidence that every participant experienced each barrier in the same way.

Table 2. Themes identified in interviews with faculty members and programme administrators

Interview theme (n = 50)	Participants identifying theme	Illustrative interpretation
Resource constraints	45 (90.0%)	Insufficient funding, assistive technologies and support personnel
Curriculum limitations	42 (84.0%)	Limited practical training and lack of specific inclusive-education content
Policy implementation	40 (80.0%)	A gap between formal commitments and operational plans or accountability
Understanding of inclusive education	38 (76.0%)	Inclusive education understood narrowly or mainly in theoretical terms
Societal and cultural attitudes	36 (72.0%)	Stigma, negative perceptions and resistance from some families or communities

The interview material also identified opportunities. Participants described interest in revising curricula, using real-world case studies, partnering with organisations and inclusive schools, strengthening professional development, and making policy commitments more operational. The documentary analysis broadly supported this pattern: policy and curriculum documents acknowledged inclusion, but the reviewed curriculum materials did not consistently specify minimum competencies, measurable graduate outcomes or assessment standards for inclusive pedagogy. Programme outlines also did not consistently require meaningful practicum exposure to inclusive classrooms.

4.5 Participants favoured experiential and collaborative strategies

Faculty and administrators rated several proposed strategies positively. Hands-on experience in inclusive classrooms was rated very effective or extremely effective by 54.0% of respondents. Collaborative workshops and seminars with experienced inclusive-education practitioners received these ratings from 76.0%, while case studies and real-life scenarios were rated very or extremely effective by 68.0%. These are perceptions of likely effectiveness, not evaluations of interventions that were implemented and tested in this study.

Table 3. Strategies rated as very or extremely effective by faculty members and administrators

Proposed strategy	Rated very/extremely effective
Collaborative workshops and seminars with inclusive-education practitioners	76.0%
Case studies and real-life scenarios in coursework	68.0%
Hands-on practical experience in inclusive classrooms	54.0%

Across the data sources, a consistent pattern emerged: inclusive education was not consistently translated into curriculum requirements, supervised practice and institutional support. Student responses also showed substantial uncertainty or scepticism about the benefits of inclusion, while faculty members and programme administrators were willing to receive further training. These findings are not contradictory: willingness to receive training, beliefs about inclusion's benefits and demonstrated competence are distinct dimensions. The evidence supports an interpretation of a policy-to-practice gap within the participating institutions rather than a claim that inclusive education is wholly absent.

4.6 Integrated interpretation across data sources

The convergent design is best understood as a joint interpretation of complementary sources rather than as proof that every source independently measured the same construct. Table 4 brings together the strongest directly reported survey and interview patterns with the documentary findings reported in the thesis. The documentary column summarises coded patterns across document categories; because a full document-by-document inventory and verbatim extracts are not reproduced here, it should not be read as attribution to a specific policy or course document.

Table 4. Joint display integrating survey, interview and documentary findings

Domain	Student survey (n = 500)	Faculty/administrator survey or interviews (n = 50)	Documentary pattern reported in thesis	Integrated interpretation
Curriculum specificity	60.2% disagreed/strongly disagreed that the programme included specific inclusive-education modules/courses.	70.0% rated curriculum coverage inadequate or somewhat adequate; curriculum limitations were identified by 84.0% of interviewees.	Policy/curriculum materials acknowledged inclusion but did not consistently specify competencies, graduate outcomes or assessment standards.	Formal recognition is not consistently translated into assessable programme requirements.

Domain	Student survey (n = 500)	Faculty/administrator survey or interviews (n = 50)	Documentary pattern reported in thesis	Integrated interpretation
Practical experience	60.0% disagreed/strongly disagreed that teacher educators facilitated hands-on experience in inclusive settings.	70.0% said practical training addressed inclusive teaching not at all or only to a small extent.	Programme outlines did not consistently require practicum exposure to inclusive classrooms or diverse learners.	Limited trialability and observability may reduce opportunities to rehearse and observe inclusive practice.
Preparedness and faculty capacity	84.6% were concerned about lacking knowledge and skills; 61.0% reported limited confidence adapting materials/methods.	72.0% rated current preparation poor or very poor; lack of faculty expertise was a reported challenge (22.0%).	Reviewed materials did not consistently operationalise competencies or specify assessment expectations.	Perceived preparedness gaps are consistent with limited curricular and practical specification, but competence was not directly assessed.
Resources and institutional support	78.4% expressed concern about inadequate resources/staff.	Insufficient administrative support was identified as a challenge by 12.0% of respondents.	Documentary analysis reported limited specificity around institutional provisions and implementation arrangements.	Inclusive practice requires organisational resources and responsibility, not only individual teacher effort.

Domain	Student survey (n = 500)	Faculty/administrator survey or interviews (n = 50)	Documentary pattern reported in thesis	Integrated interpretation
Policy implementation	Survey responses indicated limited visibility of inclusive education within programme experience.	Policy implementation gaps were identified by 80.0% of interviewees.	The thesis reports a gap between broad policy commitments and specific programme-level expectations.	The central finding is a policy-to-practice gap within the participating institutions, not a complete absence of policy commitment.

Note. Survey percentages are descriptive. Interview percentages indicate the number of interviewees who raised a theme, not population prevalence. Documentary findings are reported at category level from the thesis; no individual document is named where the article materials do not provide a verifiable itemised inventory.

5. Discussion

5.1 The gap is between endorsement and operational preparation

The study's principal finding is the coexistence of perceived preparedness gaps, limited practical exposure and scepticism about the benefits of inclusive education. The student survey showed that 84.6% were concerned about lacking the knowledge and skills required to teach students with disabilities or special educational needs; separately, 60.2% disagreed or strongly disagreed that inclusive education benefits all students, including students with disabilities. The institutional survey and interviews also identified weaknesses in curriculum coverage, practical preparation and faculty expertise. This convergence suggests that the issue includes both the practical preparation of future teachers and the ways inclusive education is explained, modelled and supported within programmes.

This interpretation is consistent with the distinction between attitudes, self-efficacy and competence in the teacher-preparation literature. Believing that inclusive education benefits learners does not necessarily equip a prospective teacher to adapt instruction, assessment and classroom routines. Similarly, self-reported confidence can be shaped by previous experience and access to support; it cannot substitute for evidence of demonstrated performance (Tschannen-Moran & Woolfolk Hoy, 2001; Sharma et al., 2012). Accordingly, the findings should be interpreted as evidence of perceived preparedness gaps and programme-level conditions, not as a direct test of classroom effectiveness.

5.2 Curriculum specificity and practicum design matter

The findings point to a need to move beyond generic references to inclusion. Curriculum documents that mention inclusion without specifying competencies, assessment expectations or required learning experiences provide limited guidance for teacher educators and students. A more operational curriculum would define what graduates should be able to do—for example, identify barriers to

participation, adapt learning materials, plan differentiated activities, use accessible assessment practices, and collaborate with families and specialist staff. These competencies should be assessed rather than assumed to follow from general exposure to the concept of inclusion.

Practicum design is equally important. The student survey showed that 60.0% disagreed or strongly disagreed that they had hands-on experience in inclusive settings. The documentary review found that placement outlines did not consistently require such exposure. From a DOI perspective, this indicates limited trialability: trainees have few structured opportunities to test strategies in authentic or realistically simulated contexts. It may also limit observability, because trainees and teacher educators have fewer opportunities to observe effective inclusive practice. Supervised placement partnerships can address both constraints when they include explicit objectives, mentor support and reflective feedback.

5.3 Institutional conditions shape the feasibility of inclusion

The prominence of resource constraints in the interviews (90.0%) highlights that implementation cannot be delegated to individual teachers without institutional support. Accessible materials, assistive technologies, specialist advice, planning time and administrative backing influence whether inclusive strategies can be adopted and sustained. The findings also suggest that policy commitments need clearer translation into responsibilities, funding decisions, monitoring and programme-level expectations. This is consistent with broader work emphasising the relationship between inclusive practice, professional learning and institutional change (Waitoller & Artiles, 2013; UNESCO, 2017).

The study does not establish that every institution faces the same barriers or that resource constraints alone explain the reported preparedness concerns. The DOI framework offers a cautious interpretive map for the convergence across sources. Relative advantage was not measured directly, and the scepticism reported by prospective teachers suggests that the perceived benefits of inclusion should not be assumed. Compatibility is relevant where inclusion is not embedded in routine curriculum and assessment requirements. Complexity is reflected in reported concerns about knowledge, skills, workload and resources. Trialability is relevant to the limited opportunities for supervised practical experience. Observability may be constrained when trainees have few opportunities to see inclusive practice modelled in authentic settings. These are interpretive connections, not direct measures of adoption or causal effects.

5.4 Implications for Pakistan and other resource-constrained contexts

The findings have implications for teacher education institutions and education policymakers in Pakistan, while remaining bounded by the study's regional scope. First, teacher education programmes should identify a common set of minimum inclusive-teaching competencies and map them across coursework and practicum. Second, practicum partnerships should include schools or settings where trainees can observe and practise inclusive approaches under supervision. Third, faculty development should be continuous and collaborative, enabling teacher educators to model inclusive methods and share experience with special educators and other practitioners. Fourth, institutional plans should identify the resources, responsibilities and monitoring arrangements needed to make these commitments actionable.

These measures should be developed with attention to local context and feasible implementation. A dedicated course may be useful, but course creation alone will not resolve the gap if the rest of the

curriculum, practicum and assessment remain unchanged. Similarly, workshops are best treated as part of an ongoing professional-learning model rather than a one-off intervention. Institutions could begin with small, monitored pilots, evaluate changes in trainees' knowledge and observed practice, and expand approaches that demonstrate value. The present study identifies plausible priorities for reform; it does not establish the effectiveness of any specific intervention.

6. Recommendations

6.1 Specify inclusive-teaching competencies

Teacher education institutions should define measurable competencies for inclusive pedagogy and integrate them across relevant coursework. Core areas should include differentiated instruction, accessible materials, assessment adaptation, classroom participation, disability awareness, and collaboration with families and specialist professionals. These competencies should be assessed through lesson plans, case analyses, simulated teaching and practicum performance rather than relying solely on self-report.

6.2 Make practicum experience intentional

Institutions should formalise partnerships with inclusive schools and specialist services. Practicum requirements should specify the learning outcomes trainees are expected to demonstrate, the support provided by mentors, and the reflective activities used to consolidate learning. Where placements in inclusive classrooms are limited, structured case-based simulations and supervised collaborative planning can provide supplementary experience, but should not be treated as a full substitute for authentic practice.

6.3 Invest in faculty development and collaboration

Professional development should be sustained, practice-oriented and linked to institutional priorities. Teacher educators should have opportunities to observe inclusive teaching, work with special educators, develop accessible learning materials and review student work collaboratively. Institutions should recognise inclusive pedagogy as part of teaching quality and programme review.

6.4 Align policy, resources and accountability

Institutional implementation plans should identify responsibilities, realistic resource requirements and indicators for monitoring progress. Relevant indicators might include the presence of defined competencies, the proportion of trainees completing inclusive practicum experiences, faculty participation in professional learning, availability of accessible materials, and evidence that assessment methods accommodate learner diversity. These indicators should support improvement rather than become a paperwork exercise detached from classroom practice.

7. Limitations and future research

The findings should be interpreted in light of several limitations. First, the study covered four purposively selected institutions in Rawalpindi Division and Islamabad Capital Territory; it is not nationally representative. Second, the cross-sectional design captures perceptions at one period and cannot establish how preparation changes over time. Third, the surveys relied on self-reports, which may be affected by recall or social-desirability bias. Fourth, interviews were conducted with faculty members and administrators rather than prospective teachers, so the qualitative strand primarily reflects institutional perspectives. Fifth, the study did not include direct observations of teaching or performance

assessments of trainees. Finally, the quantitative analyses reported here are descriptive; relationships among constructs were not tested inferentially.

Future research should include a wider range of institutions and provinces, incorporate the voices of prospective teachers and learners with disabilities, and use direct observation or performance-based assessment to examine the relationship between coursework, practicum experience and inclusive teaching competence. Longitudinal or intervention studies could assess whether defined competencies, supervised placements and faculty development lead to measurable changes in practice. Future analyses should also report instrument development and validation in sufficient detail and avoid relying on internal-consistency coefficients alone to establish measurement quality.

8. Conclusion

This mixed-methods study examined the integration of inclusive education into pre-service teacher preparation in four institutions in Rawalpindi Division and Islamabad Capital Territory. Across surveys, interviews and documentary analysis, the evidence pointed to a gap between the recognition of inclusive education as a desirable goal and the extent to which programmes provide specific curriculum guidance, practical experience and institutional support. Prospective teachers frequently reported limited exposure and concern about their knowledge and skills; faculty members and administrators identified curriculum and resource constraints and rated current preparation critically. At the same time, participants expressed support for collaborative professional learning, case-based instruction and practical experience.

The central implication is that inclusive education must be operationalised within teacher education rather than left as a general policy aspiration. Clear competencies, supervised practicum, sustained faculty development and accountable institutional planning offer a practical route from commitment to pedagogical readiness. These recommendations should be tested and adapted through further research, particularly beyond the four institutions studied here. The study provides regionally grounded evidence to inform that process, while recognising the need for broader and more direct assessments of inclusive teaching practice.

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