



Innovative Pedagogical Strategies for Promoting Inclusive Education in ITEP

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Abstract

Inclusive education has emerged in the field of education and other fields because this approach aim to overcome discrimination and barriers in the teaching learning process and teacher training processes. NEP 2020 emphasizes *access, equity, quality, affordability, and accountability* as vital pillars for transforming the education system so that no learner is left behind it .This qualitative research explore and examining the concept and significance of inclusive education within the framework of the Integrated Teacher Education Programme (ITEP) as envisioned in the National Education Policy (NEP) 2020. Drawing upon secondary data sources such as policy documents, journal articles, and international reports, the study aims to explore how inclusive pedagogy has evolved as a transformative force in teacher education. The research further seeks to identify innovative pedagogical approach including Universal Design for Learning (UDL), differentiated instruction, collaborative learning, and technology-enabled approaches—that have been documented in the literature for promoting inclusion among pre-service teachers.

Through thematic content analysis, the study synthesizes insights from Indian and international contexts, comparing global innovations such as Finland’s inclusive curriculum design, the United Kingdom’s equity-oriented teacher training, and the United States’ UDL-based instructional frameworks. The comparative analysis highlights that while many countries have successfully integrated inclusive practices



through structured policy support and professional development, Indian ITEP institutions are still in the process of developing holistic frameworks to ensure accessibility and participation for all learners. The findings emphasize the need for greater policy alignment, digital inclusivity, and context-specific pedagogical innovation. By bridging global and local perspectives, the study contributes to strengthening inclusive teacher education and offers recommendations for embedding innovative and equity-driven pedagogical models within ITEP.

Keywords: Inclusive Education, ITEP, NEP 2020, Innovative Pedagogy, Universal Design for Learning (UDL), Differentiated Instruction, Teacher Education.

Introduction

Inclusive education has become a vital aspect of 21st century and contemporary education policy by recognizing diversity among learners and ensuring that all students are equal with out any types of discrimination on the basic of physical, emotional, socio-cultural ability are able to participate fully in learning environments with any types of barriers (Wilfrid Laurie et al., 2024). In India, the National Education Policy (NEP) 2020 articulates a renewed commitment to *access, equity, inclusion, and quality*, emphasizing that teacher education must equip educators with pedagogical competencies to overcome the learners with diverse qualities and needs (Dutta, 2023). The Integrated Teacher Education Programme (ITEP), mandated under NEP 2020, aims to prepare teacher candidates who can integrate theories and practices , adopt inclusive pedagogies, and respond sensitively to diversity in the classroom (Mandal, Mete & Biswas, 2025).

Scholarly literature from India points to specific strategies like Universal Design for Learning (UDL), technology-enabled instruction, differentiated instruction, and collaborative teaching as promising approaches for inclusive education. For instance, Priyadharsini & R. Sahaya Mary (2024) examine how UDL can accelerate learning for diverse students, aligning with NEP's vision; Gopal (2024) discusses unifying UDL with UI/UX principles to improve digital pedagogical experiences. Awareness among teacher educators is another area of study—Rai & Dvivedi (2025) found moderate to high awareness of UDL frameworks among faculty from central universities in India.

Comparative international studies enrich this perspective by showing how inclusive pedagogy functions in different policy and cultural settings. The comparative overview by Sider, Ainscow, Carington, Shields & Mavropoulou (2024) discusses developments in inclusive education in England, Australia, the United States, and Canada, identifying policy levers and system-level reforms that have made inclusion more feasible. Similarly, a systematic literature review by Devitt, Banks, Bray, Sánchez Fuentes et al. (2025) highlights that while UDL interventions in second-level education yield positive outcomes, aspects like fostering learner autonomy and self-regulation receive less attention.

Given the rapid reforms under NEP 2020 and the launch of ITEP, there is an urgent need to synthesize empirical and policy literature to understand how inclusive education is conceptualized in Indian teacher education and what innovative pedagogical strategies are documented, both domestically and abroad. This study, drawing exclusively on secondary data, aims to compare these strategies, identify gaps, and suggest directions for practice and policy in the ITEP environment.



Review of Related Literature

Inclusive Education in India: Policy and Practice

The NEP 2020 focuses on inclusive education as a cornerstone of India's educational reform, aiming to provide equitable, accessibility and quality education to all learners with any types of discriminations irrespective of their socio-economic background or abilities (Rangarajan, 2025). The policy emphasizes the need for teacher education programs to equip educators with the skills necessary to address diverse learning needs (Shirode & Tambe, 2025). However, studies indicate that while the policy outlines inclusive goals, challenges persist in its implementation, including inadequate teacher preparation and resource constraints (Ashokkumar, 2025).

Innovative Pedagogical Strategies

Worldwide, various innovative pedagogical strategies have been identified to foster inclusive education. In the present, the integration of Universal Design for Learning (UDL) principles has been shown to enhance accessibility and engagement for diverse learners (Hunt, 2024). Additionally, the use of technology-enabled teaching has facilitated personalized learning experiences, particularly for students with disabilities (Espiritu & Abao-an, 2025). Collaborative learning approaches have also been effective in fostering inclusive classrooms by encouraging peer support and cooperative problem-solving (Basister, 2025).

Comparative International Perspectives

Comparative studies highlight that countries like Finland and Canada have successfully implemented inclusive education through comprehensive teacher training programs and systemic support structures (Forlin, 2021). The both nations give importance to technological adoption and accountability to enhance various suitable methods which help to overcome the diverse learners' problems in different fields.

Rationale of the Study

Inclusive education has emerged as a critical goal of modern educational systems in the world which emphasises equity, diversity, and the right of every learner to access quality education. In India, the NEP 2020 places significant emphasis on inclusive practices, mandating reforms in teacher education through the Integrated Teacher Education Programme (ITEP) to prepare educators capable of addressing diverse learning needs (Rangarajan, 2025; Shirode & Tambe, 2025). Despite policy initiatives, challenges persist in translating inclusive principles into classroom practice due to limited teacher preparedness, insufficient pedagogical innovation, and gaps in systemic support (Ashokkumar, 2025).

The rationale for this study is grounded in the need to understand and document innovative pedagogical strategies that can effectively promote inclusive education in the context of ITEP. While international research has highlighted various strategies and methods such as Universal Design for Learning (UDL),



differentiated instruction, collaborative learning, and technology-enabled teaching as effective tools for fostering inclusion (Hunt, 2024; Forlin, 2021; Espiritu & Abao-an, 2025), there is limited literature analyzing their application within Indian teacher education. Furthermore, comparative insights from foreign contexts remain underexplored in relation to India's ITEP framework.

Research Objectives

1. To examine how inclusive education is conceptualized and emphasized within the Integrated Teacher Education Programme (ITEP) according to NEP 2020 and related policy documents.
2. To identify and analyze innovative pedagogical strategies for promoting inclusion in teacher education.

Methodology

This study adopts a qualitative research design based on secondary data analysis to explore innovative pedagogical strategies for promoting inclusive education within the ITEP as conceptualized under the NEP 2020. The research systematically reviews policy documents, national frameworks, journal articles, and international reports related to inclusive education and teacher preparation. Data were collected from credible peer-reviewed journals, UNESCO and OECD publications, NEP 2020 reports, and scholarly databases such as Sage articles, Government documents, ERIC, and Google Scholar. The qualitative content analysis method was employed to identify recurring themes, patterns, and strategies used to enhance inclusivity in teacher education across India and selected international contexts (Finland, Canada, and the United Kingdom). The analysis involved thematic coding and comparative synthesis, focusing on policy frameworks, teacher training modules, pedagogical innovations, and assessment practices. The study emphasizes interpretive understanding rather than numerical generalization, thereby providing an in-depth insight into the pedagogical innovations, challenges, and prospects of inclusive education within ITEP.

Exploring and Analyzing the Comprehensive Conceptual Framework of Inclusive Education in ITEP

Inclusive education is globally recognized as a fundamental principle of equitable schooling, ensuring that all learners, irrespective of ability, socio-economic background, gender, or other factors, have access to quality education (Ainscow, Booth, & Dyson, 2020). In NEP 2020 positions inclusive education as central to the transformation of the teacher education system, emphasizing equity, diversity, and accessibility in schools and teacher preparation programs (Rangarajan, 2025; Shirode & Tambe, 2025).

The Integrated Teacher Education Programme (ITEP), introduced under NEP 2020, is designed to prepare educators who can integrate inclusive pedagogy into classroom practice. The program emphasizes a learner-centered, holistic, and multidisciplinary approach that includes modules on diversity, special education needs, and equity-focused teaching strategies (Mandal, Mete, & Biswas, 2025). Teacher educators are expected to cultivate competencies in recognizing and responding to diverse student needs, employing adaptive teaching methods, and fostering supportive learning environments (Priyadharsini & R. Sahaya Mary, 2024).



Internationally, frameworks such as Universal Design for Learning (UDL) and differentiated instruction have been highlighted as effective strategies to support inclusion (Hunt, 2024; Devitt et al., 2025). These strategies focus on flexible curriculum design, multiple modes of representation, and adaptive learning tools to meet diverse learners' needs. Comparative studies show that countries like Finland, Canada, and the United Kingdom successfully integrate such strategies in teacher education, emphasizing professional development, policy support, and systemic reforms (Forlin, 2021; Sider et al., 2024).

In the Indian context, the conceptual framework of inclusive education within ITEP aligns these international best practices with national objectives, integrating policy guidelines, curriculum structure, teacher training, and pedagogical innovation. By combining domestic policy imperatives with global pedagogical insights, ITEP aims to create educators capable of fostering inclusive, equitable, and participatory learning environments across diverse classroom settings.

Analyzing Policy Provisions and Tabulation of Inclusive Strategies in ITEP and International Comparisons

Inclusive education is recognized as a fundamental component of teacher education worldwide. Effective implementation depends on policy alignment, teacher training, and pedagogical innovation. In India, the Integrated Teacher Education Programme (ITEP) under NEP 2020 emphasizes inclusive education through structured curriculum modules, professional development, and pedagogical strategies (Rangarajan, 2025; Shirode & Tambe, 2025). Globally, countries like Finland, Canada, and the United Kingdom have adopted systemic frameworks that integrate policy, curriculum, and teacher preparation to ensure effective inclusion (Forlin, 2021; Sider et al., 2024).

Policy Provisions in ITEP (India)

NEP 2020 Guidelines: Mandates inclusive education as a key principle in teacher preparation, emphasizing equity, diversity, and accessibility for all learners.

Teacher Competencies: Focuses on building pre-service teachers' knowledge, skills, and attitudes to address diverse learning needs (Mandal, Mete, & Biswas, 2025).

Curriculum Integration: Inclusion of modules on special education, differentiated instruction, collaborative learning, and technology-assisted teaching.

Support Structures: Emphasis on digital learning resources, specialized educators, and institutional support to facilitate inclusive classroom practices.

Worldwide Perspectives on Inclusive Education in ITEP

Finland: Inclusive teacher education emphasizes Universal Design for Learning (UDL), personalized learning plans, and strong mentorship programs.



Canada: Teacher preparation integrates inclusion-focused professional development, differentiated instruction, and adaptive learning technologies.

United Kingdom: Pre-service and in-service teachers are trained in inclusive pedagogy, SEND policies, UDL strategies, and assistive technology.

Comparative Analysis of Inclusive Strategies

Table no :01

Dimension	India (ITEP – NEP 2020)	Finland	Canada	United Kingdom
Policy Framework	NEP 2020: equity, diversity, accessibility	National inclusive education policy; systemic support	Provincial inclusion policies	SEND Code of Practice; inclusive curriculum
Teacher Training	Curriculum modules on inclusion, technology integration	Continuous professional development, mentoring	Mandatory inclusion training, differentiated instruction	Focus on make well trained Pre-service and in-service training in inclusive pedagogy for all
Pedagogical Strategies	UDL, differentiated instruction, collaborative learning,	UDL, personalized learning, peer collaboration	UDL, collaborative projects, adaptive tools	Differentiated instruction, UDL, assistive technology



	technology-assisted teaching			
Assessment and Evaluation	Flexible assessment for diverse learners	Formative and summative adapted assessments	Individualized assessment plans	Inclusive assessment frameworks with accommodations
Support Structures	Special educators, digital resources, learning materials	Resource centers, specialized staff	Inclusion coordinators, assistive technology units	Learning support services, resource classrooms

The comparison table 0.1 provides a clear overview of how inclusive education strategies are structured and implemented in India’s Integrated Teacher Education Programme (ITEP) under NEP 2020, compared with practices in Finland, Canada, and the United Kingdom. It shows that India’s framework emphasizes equity, diversity, and accessibility, with a growing focus on Universal Design for Learning (UDL), differentiated instruction, and technology-assisted teaching. However, while India’s policies are progressive in intent, countries like Finland, Canada, and the UK have more systemically embedded and practice-oriented approaches. These nations integrate continuous professional development, mentorship, and institutional support systems—such as resource centers and inclusion coordinators—ensuring effective classroom implementation. In contrast, India’s ITEP is still evolving in terms of teacher preparedness, infrastructure, and assessment flexibility. Overall, the table highlights that India aligns conceptually with global best practices but needs stronger institutional mechanisms, professional training, and support systems to achieve the same level of inclusivity seen in advanced educational contexts.

Analysis and Insights

Alignment with International Best Practices: ITEP strategies conceptually align with global frameworks like UDL and differentiated instruction, but systemic and resource-based limitations remain (Priyadharsini & Sahaya Mary, 2024).

Policy to Practice Gap: While NEP 2020 provides comprehensive guidelines, implementation varies across Indian institutions due to infrastructure and faculty training challenges (Ashokkumar, 2025).

Potential for Enhancement: Learning from Finland and Canada, India can strengthen professional development, institutional support, and curriculum-based inclusion mechanisms to optimize teacher preparedness.

To examine strategies documented in national and international literature Comprehensive Analysis of Inclusive Pedagogical Strategies

Inclusive education emphasizes equitable learning opportunities for all students regardless of ability,



background, or context. Global pedagogical models such as Universal Design for Learning , Differentiated Instruction, Collaborative Learning, and Technology-Assisted Teaching provide frameworks to achieve this inclusivity (Florian & Black-Hawkins, 2011; Almeqdad, 2023). These approaches align with the principles of the Integrated Teacher Education Programme under NEP, 2020, promoting flexible, learner-centered, and inclusive teaching competencies.

Universal Design for Learning (UDL)

Concept and Framework

UDL is a systematic productive design framework ensuring accessibility through multiple means of engagement, representation, and expression (Meyer, Rose, & Gordon, 2014). It basically focuses on universality among students, teacher learning progress, teaching approaches and ICT framework. It focuses on anticipating diversity rather than retrofitting for it.

Empirical Evidence

Almeqdad (2023) found that UDL improves engagement of learners in teaching learning process with the respect of diversity among the children without any type of discrimination and improves academic performance and co- curricular activities among students with varied learning needs. Rao et al. (2021) emphasized that implementing UDL principles in teacher education fosters reflective and adaptive teaching practices.

Challenges in Implementation

Each developing country has lots of challenges and lacks a root implication of this strategy but International bodies like UNESCO, UNICEF, WHO stated that the successful UDL adoption requires institutional support, faculty training, and curricular flexibility (Al-Azawei et al., 2016). but lack of teacher training and competency often make teachers often lack confidence and professional development to embed UDL effectively in classrooms.

Differentiated Instruction (DI)

Conceptual Basis

DI focuses on individual differences and diversity among learners on the basis of socio economic status, internal potentialities and individual differences. It involves modifying content, process, product, and learning environment to accommodate diverse learner needs (Tomlinson, 2014). Similarly, It promotes personalization without segregation, aligning with inclusive pedagogy ideals.

Evidence from Literature

Pozas (2021) demonstrated that DI enhances academic achievement and learner well-being and another study also gives positive importance and implications of DI. Coubergs et al. (2017) confirmed DI's



positive influence on student motivation , engagement, encouraging and inclusion in heterogeneous classrooms.

Implementation Constraints

Now,DI demands advanced planning, diagnostic assessments, and supportive learning environments in the field of learning and evaluation process. Planning , assessment, and evolution of learning outcomes are the most vital parts of the 21st century (Smale-Jacobse et al.,2019). Without institutional helping or scaffolding in the teaching learning process, DI risks superficial differentiation (Pozas, 2021).

Collaborative Learning and Co-Teaching

Definition and Relevance

Collaborative learning involves structured group tasks fostering peer engagement and collective responsibility. Similarly, Co-teaching models pair general and special educators to ensure inclusive participation (Friend & Cook, 2017).

Research Findings

Pozas (2023) observed that collaboration enhances teacher efficacy and inclusive practices and Thousand et al. (2015) highlighted that cooperative learning supports social inclusion and reduces stigma among learners with disabilities.

Implementation Factors

Success depends on shared planning time, mutual respect, and administrative backing (Scruggs et al., 2007).Lack of clarity in teacher roles often limits collaborative outcomes.

Technology-Assisted Teaching

Overview

Technology enables differentiated learning pathways through digital platforms, adaptive tools, and assistive devices (Navas-Bonilla, 2025).It bridges accessibility gaps for learners with physical, sensory, or cognitive challenges.

Evidence from Systematic Reviews

Mukhtarkyzy (2025) noted that assistive technologies enhance participation and learning outcomes in inclusive classrooms. Similarly, Alnahdi (2020) reported that digital tools improve engagement for students with learning disabilities when paired with pedagogical training.



Limitations and Ethical Concerns

Challenges include cost, infrastructure, teacher readiness, and data privacy issues (Eady & Lockyer, 2013). Technology must complement—not replace—human interaction in inclusive education.

Cross-Cutting Insights

Teacher Professional Development

All strategies emphasize continuous professional learning to build inclusive competencies (Florian & Spratt, 2013).

Policy-Practice Alignment

Countries like Finland and Canada demonstrate how coherent policy and resource structures sustain inclusive pedagogies (UNESCO, 2020).

Research Gaps

Few studies examine integrated applications of UDL, DI, and technology in low-resource contexts such as Indian ITEP institutions (Rao et al., 2021).

Implications for ITEP

Embed inclusive pedagogical modules and field-based training on UDL and DI in teacher curricula and encourage co-teaching practice and peer collaboration projects. Now, Integrate ICT and assistive technology training within inclusive pedagogy coursework. Develop continuous professional development and mentoring systems for pre-service and in-service teachers.

Findings & Discussion

The analysis of secondary data revealed the following key findings:

1. The conceptual framework of inclusive education within Integrated Teacher Education Programme (ITEP) (India) aligns with global frameworks such as Universal Design for Learning (UDL) and differentiated instruction (DI), focusing on access, equity and diversity.
2. Documented strategies like UDL, DI, collaborative learning, and technology-assisted teaching are well represented in international teacher-education literature and are increasingly referenced in Indian teacher-training policy contexts. For example, Sewell (2022) outlines UDL as a theory of inclusion.
3. Implementation gaps persist: While policy is progressive, practical execution in Indian ITEP contexts is constrained by teacher training deficits, infrastructural limitations and insufficient institutional



support. The study by Lindner (2020) on differentiated instruction highlights such barriers in inclusive classrooms.

4. The comparative table analysis shows that while India's framework emphasizes inclusive strategy categories similar to Finland, Canada and the UK, the latter countries demonstrate stronger systemic integration (continuous professional development, robust support systems, adaptive assessment).
5. The data suggest that successful inclusive pedagogy in teacher education requires interplay of policy coherence, teacher capacity building, resource allocation and ongoing evaluation rather than just standalone strategy adoption.

Discussion

These findings underscore that for ITEP to fully actualize inclusive pedagogy, it must move beyond policy articulation to concrete structural support (e.g., professional development, co-teaching models, digital resources). The international evidence suggests that UDL and DI are most effective when embedded in a holistic system (Griful-Freixenet et al., 2021; Cai & Lombaerts, 2024). Additionally, technology-assisted teaching holds promise but demands digital equity and pedagogical readiness. The results point to a need for context-sensitive adaptation of global practices within Indian teacher-education contexts.

Future Study

1. Conduct empirical research (qualitative or mixed-methods) within ITEP institutions to investigate how pre-service teachers and teacher educators perceive and apply inclusive pedagogical strategies in practicum settings.
2. Longitudinal studies tracking the impact of inclusive pedagogy training (UDL, DI) on teacher behaviour and learner outcomes in Indian inclusive classrooms.

Recommendations

1. **Curriculum Integration:** Embed modules on UDL, DI, collaborative learning and technology-assisted pedagogy within the ITEP curriculum with practical, hands-on components.
2. **Professional Development:** Offer continuous in-service professional development for teacher educators focusing on inclusive pedagogy, assessment for learning and digital/instructional technologies.
3. **Institutional Support:** Establish support structures within institutions (e.g., co-teaching pairs, peer mentorship, resource centres) and allocate resources for inclusive teaching practice.
4. **Technology & Accessibility:** Invest in assistive technologies and digital infrastructure, and build teacher competence in integrating tech for inclusion, especially in under-resourced contexts.



5. **Monitoring & Evaluation:** Develop processes for ongoing assessment and evaluation of inclusive pedagogy implementation within ITEP, with feedback loops for continuous improvement.
6. **Policy-Practice Linkage:** Strengthen alignment between policy mandates (NEP 2020) and classroom practice by ensuring teacher preparation programs receive sufficient resources, training and institutional backing.

Conclusion

This study has explored how inclusive education is conceptualised within the ITEP framework and identified innovative pedagogical strategies documented in literature (UDL, DI, collaborative learning, technology-assisted teaching), comparing Indian and international contexts. While India's policy framework demonstrates strong alignment with global best practices, the translation into effective teacher-education practice remains a challenge. For ITEP to fulfil its vision of inclusive teacher preparation, it must adopt a systems-oriented approach—combining strategic curriculum redesign, professional development, institutional capacity building and robust evaluation. The insights and recommendations offered aim to guide stakeholders in strengthening inclusive pedagogy and ensuring that pre-service teachers are equipped to create truly inclusive classrooms.

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