

Trends and Evolvement of Integrated Teacher Education Programme

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Abstract

The field of teacher education has undergone significant transformations, with a growing emphasis on integrated teacher education programs (ITEPs) to enhance teacher preparation. This review paper explores structural components, curriculum design, and global perspectives of ITEPs, with a particular focus on the 4-year Integrated Teacher Education Program. The study highlights the rationale behind integrating content knowledge with pedagogical training, addressing the limitations of traditional teacher education models. Through an extensive review of literature, this paper examines the perceptions of student-teachers and teacher educators regarding the effectiveness of ITEPs in comparison to conventional two-year B.Ed. programs. It also analyses assessment and evaluation methods, pedagogical strategies, and global best practices in teacher education. By synthesizing insights from diverse educational systems, this paper contributes to the ongoing discourse on teacher education reforms and provides recommendations for policymakers and institutions to enhance the implementation of integrated teacher education models.

Keywords: Integrated Teacher Education Programme (ITEP), Teacher Education, Curriculum, Assessment and Evaluation, Best Practices

Introduction

Teacher education plays a pivotal role in shaping the quality of education and, consequently, the future of a nation. The evolution of teacher education has been influenced by historical, social, and policy-driven changes, reflecting the need for well-prepared educators who can meet the dynamic demands of the classroom. From the traditional models of teacher training to the current integrated teacher education programs, the field has undergone significant transformations aimed at enhancing both pedagogical and subject-specific competencies.

One of the most significant advancements in teacher education is the introduction of integrated teacher education programs (ITEP), which aim to merge academic learning with professional training. Countries like Finland, Korea, and Singapore have successfully implemented integrated models, demonstrating their effectiveness in improving teacher preparedness and student outcomes. In India, the introduction of a four-year integrated B.Ed. program under the National Education Policy (NEP) 2020 reflects a strategic shift toward holistic and competency-based teacher preparation.

This review paper examines the trends, evolvement, and effectiveness of integrated teacher education

programs. It explores the historical development of teacher training, policy interventions, curriculum structure, pedagogical practices, assessment methodologies, and global best practices. Furthermore, it critically analyzes the perceptions of student-teachers and teacher educators regarding the integrated approach and identifies existing research gaps. By synthesizing literature and comparative perspectives, this paper aims to contribute to ongoing discussions on teacher education reforms and their impact on the teaching-learning ecosystem.

Review of the contemporary studies

The review of contemporary researches on the 4-Year Integrated Teacher Education Curriculum stems from the need to address critical challenges in teacher preparation while aligning with global best practices in education. Traditional models of teacher education often separate academic content from pedagogical training, leading to fragmented learning experiences and inadequate preparation for real-world teaching demands. The integrated curriculum seeks to bridge this gap by combining foundational academic knowledge, professional pedagogy, and extensive practicum experiences into a cohesive, streamlined program.

Globally, integrated programs have gained recognition for fostering deeper connections between theory and practice, equipping future educators with a holistic understanding of teaching and learning processes. For instance, countries like Finland and Korea have successfully implemented integrated teacher education models, demonstrating significant improvements in teacher quality and student outcomes. The integrated approach also aligns with the growing emphasis on competency-based education, enabling prospective teachers to develop critical skills such as classroom management, inclusion, and intercultural competence. In the context of developing nations like India, the introduction of a 4-year integrated curriculum reflects a commitment to enhancing the professionalism of the teaching workforce. It aims to attract high-caliber candidates, reduce attrition rates in teacher training programs, and address issues of teacher shortages by providing a more efficient pathway to certification. Furthermore, the curriculum emphasizes innovative pedagogical practices and global competence development, preparing educators to meet the diverse needs of 21st-century learners.

This review is essential for evaluating the effectiveness, challenges, and long-term impact of integrated teacher education curricula in fostering well-rounded, classroom-ready educators. It seeks to contribute to the global discourse on teacher education reforms by identifying best practices and offering insights for future policy and programmatic decisions.

Research trend in Curricular Structure of 4-year Integrated B.Ed. Programme

The studies reviewed under above theme contribute to emergence of following trends.

- The 4-year integrated program combines teacher training with undergraduate education, enabling mastery in two school subjects and extended school internships of 20 weeks. Unlike the 1-year program, which focuses on pedagogical practicum and includes fewer practical aspects, the 2-year and 4-year programs emphasize comprehensive field engagement, including lesson plans and internship assessments. Provides a professional touch by integrating subject expertise and teaching skills. Saves a year compared to completing a bachelor's degree followed by a separate teacher training program (Mandal and Mete, 2023).
- In Nepal, Two types of B.Ed. programs exist: a 4-year integrated program (post-grade 12) and a 1-year professional B.Ed. (post-graduation). In India a 2-year professional B.Ed. program (post-

graduation) is standard. Nepal's B.Ed. programs dedicate only 20% of coursework to professional and pedagogical content. Indian programs emphasize professional and pedagogical knowledge, covering a higher proportion of related coursework. (Deupa, 2021)

- Reduces the time required for obtaining a teaching degree from five years (traditional B.Ed.) to four years. Saves on tuition and living costs for an additional year. Graduates earn a liberal bachelor's degree (in subjects like History, Mathematics, or Economics) along with pedagogy training. (Dixit, 2023)
- The Finnish teacher education focuses on research work, where they have to come up with Master's thesis and Doctoral work (Kaur, 2019).
- NEP 2020 reforms bring 4-year integrated B.Ed. program combining education with specialized subjects like science, arts, and technology (Mondal & Baidya, 2024).

The above trends find 4-year integrated teacher education program as offered with a streamlined approach by combining undergraduate education with teacher training, allowing students to gain mastery in two school subjects while participating in extended school internships of 20 weeks. This program stands out from the 1-year professional program, which primarily focuses on pedagogical practicum and offers limited practical exposure. Unlike the shorter programs, the 2-year and 4-year models emphasize comprehensive field engagement, including the development of lesson plans and internship-based assessments, effectively blending subject expertise with teaching skills. The integrated program reduces the time required to earn a teaching degree, saving an additional year compared to the traditional pathway of completing a bachelor's degree followed by separate teacher training.

In Nepal, two types of Bachelor of Education (B.Ed.) programs are offered: a 4-year integrated program post-grade 12 and a 1-year professional B.Ed. for graduates. However, only 20% of the coursework in Nepal's programs focuses on professional and pedagogical content. In contrast, Indian teacher education, typically offered as a 2-year professional B.Ed. post-graduation, dedicates a higher proportion of coursework to professional and pedagogical knowledge. This integrated model also provides cost savings on tuition and living expenses while allowing graduates to earn a liberal bachelor's degree in subjects such as History, Mathematics, or Economics alongside pedagogy training.

In Finland, teacher education prioritizes research work, with a strong emphasis on producing a Master's thesis or engaging in doctoral research, reflecting its rigorous academic framework. Aligning with global trends, India's National Education Policy (NEP) 2020 has introduced reforms that advocate for a 4-year integrated B.Ed. program, merging education with specialized subjects in science, arts, and technology, enhancing the professional preparation and subject mastery of future educators.

Research trend in Transaction of Curriculum of 4-year Integrated B.Ed. Programme

The studies reviewed under above theme contribute to emergence of following trends

- Both India and Nepal use a mix of traditional and modern pedagogies grounded in behaviourism, cognitivism, and constructivism.
- Instructional techniques include lectures, discussions, group work, field visits, and project-based learning.
- India offers longer internships (4-5 months), fostering skills like communication, leadership, and real-world teaching. Nepal provides only 1 month of practicum, limiting exposure to practical teaching environments.
- Current integrated programmes have holistic learning across multiple disciplines. Improved retention

and higher-level thinking skills. Better connections between education and real-world applications. Enhanced interdisciplinary and multidisciplinary skillsets.

Both India and Nepal incorporate a blend of traditional and modern pedagogies rooted in behaviourism, cognitivism, and constructivism, ensuring a well-rounded approach to teacher education. Instructional techniques commonly include lectures, discussions, group work, field visits, and project-based learning, aiming to develop critical skills in future educators. However, significant differences exist in the practical training component. India offers longer internships lasting 4-5 months, providing ample opportunities for student teachers to develop communication, leadership, and real-world teaching skills. In contrast, Nepal's programs allocate only one month for practicum, limiting students' exposure to practical teaching environments and the associated learning opportunities.

The integration of holistic learning across multiple disciplines is a strength of both systems, fostering improved retention, higher-level thinking skills, and a deeper understanding of educational concepts. This interdisciplinary and multidisciplinary approach bridges the gap between theoretical education and real-world applications, enabling future educators to better connect with the practical demands of teaching. These differences in practical exposure and pedagogical focus highlight the varying priorities and challenges faced by teacher education systems in both countries.

Research trend in Assessment and Evaluation of 4-year Integrated B.Ed. Programme

The studies reviewed under the above theme contribute to emergence of following trends.

- India primarily uses numerical grading, while Nepal employs a mix of numerical and letter grades. Nepal: Tribhuvan University relies entirely on external assessments. Far West University combines internal (40%) and external (60%) assessments. India: Internal assessments contribute 20-30%, and external exams form the majority (70-80%). Evaluation also includes practical and community engagement activities.
- The ITEP has shown promise in developing foundational problem-solving and decision-making abilities among students

Assessment practices in teacher education programs in Nepal and India reflect distinct approaches to evaluating student performance. In Nepal, Tribhuvan University relies solely on external assessments, while Far West University adopts a blended model, allocating 40% weight to internal assessments and 60% to external evaluations. In contrast, Indian teacher education programs assign 20-30% weight to internal assessments, with the majority (70-80%) derived from external exams. Additionally, India incorporates practical components and community engagement activities into its evaluation process, emphasizing the holistic development of student teachers.

Grading systems also differ between the two countries. India predominantly uses numerical grading to assess student performance, whereas Nepal employs a mix of numerical and letter grades. Despite these variations, both systems aim to enhance foundational skills among students. The Initial Teacher Education Programs (ITEPs) in both countries have shown promise in cultivating critical problem-solving and decision-making abilities, equipping future educators to address classroom challenges effectively.

Perception of Student-Teachers

- 54.7% believed ITEP is superior to the two-year B.Ed. program.
- 92.4% considered ITEP more employable than the two-year B.Ed.
- 64.4% chose the ITEP course to pursue a teaching career.

- 77.3% enrolled in ITEP based on personal choice.
- 77.9% viewed ITEP as a time-saving alternative to traditional programs.
- Students generally appreciate the time efficiency and job readiness offered by ITEP. A significant number of students see the program as more employable and holistic compared to traditional teacher education routes.
- Osmania University students exhibited a significantly more favourable attitude towards the program compared to Kakatiya University students.
- This difference is attributed to OU's better infrastructure, academic support systems, and reputation.
- Rural student-teachers demonstrated higher levels of enthusiasm and commitment to the program compared to urban students.
- Contributing factors include limited exposure among rural students and the disciplined environment of hostels.
- Majorly B. Ed and B.A./B.Sc. B. Ed. programme students gave favourable opinion about curriculum reform.

The Initial Teacher Education Program (ITEP) has received positive feedback for its efficiency and employability compared to traditional teacher education routes. A majority of students (54.7%) believe ITEP is superior to the two-year B.Ed. program, with an overwhelming 92.4% considering it more employable. Additionally, 64.4% of students chose the ITEP course specifically to pursue a teaching career, while 77.3% enrolled based on personal choice. The program's time-saving nature was highlighted by 77.9% of students, who viewed it as a practical alternative to traditional pathways. Overall, students appreciate the program's emphasis on time efficiency and job readiness, perceiving it as a more holistic and employable option.

Institutional differences also shaped attitudes toward ITEP. Students from Osmania University (OU) expressed significantly more favourable opinions about the program than those from Kakatiya University (KU), a distinction attributed to OU's superior infrastructure, academic support systems, and reputation. Rural student-teachers demonstrated higher levels of enthusiasm and commitment compared to their urban counterparts, likely influenced by their limited prior exposure to such programs and the structured, disciplined environment provided by hostels.

In terms of curriculum reform, both B.Ed. and B.A./B.Sc. B.Ed. program students expressed favourable opinions, recognizing the program's alignment with contemporary educational needs. These findings underscore the strengths of ITEP in preparing future educators while highlighting the role of institutional support and demographic factors in shaping student experiences.

Perception of Teacher Educators

- Strong agreement (Mean = 4.10, SD = 0.85) on the necessity of infrastructural improvements for stand-alone institutions to transition into multidisciplinary colleges or universities.
- Teacher educators believe the four-year ITEP provides a more streamlined pathway to teacher qualification compared to the traditional two-year B.Ed. program.
- The program integrates academic subject expertise with pedagogical training, which was seen as beneficial for creating well-rounded educators.
- Teacher educators believe the program will enhance the professional standards of future teachers by integrating pedagogy with academic content.

- ITEP is viewed as an efficient model that reduces the time required for teacher training compared to the traditional 5-year pathway (3 years for an undergraduate degree plus 2 years for B.Ed.).

There is strong agreement among teacher educators (Mean = 4.10, SD = 0.85) on the necessity of infrastructural improvements for stand-alone institutions to transition into multidisciplinary colleges or universities. Teacher educators view the four-year Initial Teacher Education Program (ITEP) as a more streamlined and efficient pathway to teacher qualification compared to the traditional two-year B.Ed. program. By integrating academic subject expertise with pedagogical training, ITEP is seen as a significant advancement in preparing well-rounded educators equipped with both content knowledge and teaching skills.

The program is also regarded as an efficient model that reduces the time required for teacher training, offering a four-year alternative to the traditional five-year pathway, which includes three years for an undergraduate degree followed by two years for a B.Ed. degree. Teacher educators believe this integration of pedagogy and academic content will enhance the professional standards of future teachers, ensuring their readiness to meet the demands of modern classrooms while maintaining high-quality teaching practices.

Global Perspectives & Best Practices

- Indian programs focus more on pedagogy and extended practicum, resulting in better preparation for real-world teaching.
- Integrated programs are widely prioritized in leading universities globally.
- Countries like Finland and Korea incorporate integrated curricula into their systems, aligning with global best practices.
- Global competence (GC) should be explicitly incorporated into ITEPs, aligning with Organization for Economic Co-operation and Development's (OECD) definition.
- Key GC dimensions include multicultural awareness, intercultural dialogue, inclusion, cooperation, and sustainability.
- Workshops, seminars, and teaching practice are identified as optimal for promoting GC.
- Traditional lectures are less effective for this purpose.
- In Israel, reforms focus on integrating a 5-year program combining Bachelor's and Master's degrees, enhancing academization and clinical preparation.
- Portugal emphasizes a Bologna Process-inspired structure with a two-tier system (undergraduate followed by a Master's in Teaching), integrating research into practical training.
- Jamaica has shifted towards a Bachelor's requirement and faces challenges with the alignment of teacher education curricula to classroom realities.
- Ontario (Canada) emphasizes universal design and coherence in program foundations but faces challenges with reliance on sessional instructors.
- England has moved towards school-based teacher training, reducing higher education institutions' influence.
- The transition from the Teachers' Training College (TTC) to the National Institute of Education (NIE) marked a shift from practical teacher training to a research-based teacher education model.
- Universitisation helped elevate teacher preparation, aligning it with global best practices while focusing on Singapore-specific challenges.

- NIE established a strong base for education research, enabling data-driven reforms and innovation.
- Its research centres contributed significantly to understanding and addressing classroom and pedagogical challenges specific to Singapore.

Indian teacher education programs place significant emphasis on pedagogy and extended practicum, providing better preparation for real-world teaching compared to traditional models. Integrated programs are increasingly prioritized in leading universities worldwide, reflecting global best practices. Countries such as Finland and Korea have incorporated integrated curricula into their systems, fostering a comprehensive approach to teacher preparation. Similarly, global competence (GC) has been identified as a critical component of Initial Teacher Education Programs (ITEPs), aligning with the Organization for Economic Co-operation and Development's (OECD) definition. Key dimensions of GC include multicultural awareness, intercultural dialogue, inclusion, cooperation, and sustainability. Workshops, seminars, and teaching practice have been recognized as optimal methods for promoting GC, whereas traditional lectures are less effective for this purpose.

Internationally, various teacher education systems are undergoing reforms to align with global standards. Israel's reforms integrate a 5-year program combining a Bachelor's and Master's degree, enhancing academization and clinical preparation. Portugal follows a Bologna Process-inspired two-tier structure, combining undergraduate education with a Master's in Teaching, which integrates research and practical training. Jamaica has transitioned to a Bachelor's requirement for teacher education but faces challenges aligning curricula with classroom realities. Ontario, Canada, emphasizes universal design and coherence in program foundations but struggles with reliance on sessional instructors. England has shifted toward school-based teacher training, reducing higher education institutions' influence.

In Singapore, the transition from the Teachers' Training College (TTC) to the National Institute of Education (NIE) marked a significant shift from practical teacher training to a research-based model. This "universalisation" elevated teacher preparation, aligning with global best practices while addressing Singapore-specific challenges. NIE's strong foundation in education research has enabled data-driven reforms and innovations, contributing to a deeper understanding of classroom and pedagogical challenges unique to Singapore. These global examples underscore the evolving nature of teacher education and the importance of integrating pedagogy, research, and practical training to meet contemporary educational demands.

Conclusion and Implications

The review of literature on the 4-Year Integrated Teacher Education Program (ITEP) highlights its significance in bridging the gap between academic content and pedagogical training, ensuring well-rounded teacher preparation. The findings suggest that integrated programs provide a more cohesive approach to teacher education by embedding subject expertise, pedagogical knowledge, and extended practical experiences within a single framework. The effectiveness of ITEP is evident in its ability to reduce the overall duration of teacher training, enhance classroom readiness, and align with global best practices adopted in countries such as Finland, Korea, and Singapore. Furthermore, ITEP has demonstrated higher employability potential, with a majority of students and educators considering it superior to conventional two-year B.Ed. programs.

However, challenges remain, particularly in the areas of curriculum implementation, infrastructure, and alignment with real-world classroom demands. The need for stronger integration of content and pedagogy, reflective practice through action research, and increased field exposure is emphasized

Curriculum Enhancement: Future policies should ensure that ITEP curricula integrate content mastery with pedagogy, incorporating double major subjects, value-added courses, and interdisciplinary approaches.

Internship and Practical Training: The internship model should follow a 3+3 structure (three months in each semester), emphasizing reflective practice, action research, and real-time classroom engagement.

Assessment and Evaluation: A shift toward competency-based assessments, continuous evaluation, and research-driven learning should be prioritized to ensure that teacher trainees develop critical thinking, adaptability, and problem-solving skills.

Infrastructure Development: Stand-alone institutions should transition into multidisciplinary teacher education hubs with state-of-the-art facilities to support research, innovation, and experiential learning.

Global Competence in Teacher Training: Future teacher education reforms must focus on developing global competence (GC) through workshops, seminars, and intercultural collaboration, aligning with OECD-defined competencies.

Policy Interventions for Implementation: Policymakers should streamline admission processes, increase financial and institutional support, and strengthen collaborations with schools to enhance the impact of integrated teacher education.

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