

NEED, CHALLENGES AND SUSTAINABLE DEVELOPMENT BY INTEGRATED TEACHERS TRAINING PROGRAMME IN INDIA ITEP

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Abstract

Integrated Teacher Education Programs (ITEP) in India have emerged as a strategic initiative to address the evolving demands of quality education, teacher preparedness, and sustainable educational development. By integrating pre-service and in-service teacher training, ITEP aims to enhance pedagogical competencies, foster reflective practices, and support professional growth. This study examines the needs, challenges, and potential contributions of ITEP to sustainable development in the Indian educational context. A mixed-method research design was employed, involving surveys and interviews with 450 teachers across six states. Quantitative data were analyzed using descriptive statistics and ANOVA, while qualitative insights were thematically analyzed. The findings reveal that while ITEP significantly enhances teacher competencies and encourages inclusive education, major challenges include resource constraints, infrastructural limitations, and resistance to pedagogical innovation. Furthermore, ITEP contributes to sustainable development by promoting lifelong learning, equity, and environmentally conscious teaching practices. Recommendations include policy support, curriculum modernization, digital integration, and localized training modules. This study underscores the importance of strategically designed teacher education programs in aligning educational outcomes with the broader goals of sustainable development in India.

Keywords: *Integrated Teacher Education Programme (ITEP), Teacher Education, NEP 2020, Sustainable Development Goals (SDGs), Implementation Challenges*

Introduction

Teachers are the cornerstone of any educational system, acting as the primary conduits for knowledge, values, and skills to the next generation. The efficacy of an entire nation's educational enterprise, and consequently its socio-economic progress, hinges on the caliber, motivation, and professional preparation of its teachers (Darling-Hammond, 2017). In India, the landscape of teacher education has long been a subject of concern, characterized by a dichotomy between subject knowledge and pedagogical skills. The conventional model, wherein students pursue a three-year bachelor's degree followed by a one-year Bachelor of Education (B.Ed.), has been widely criticized for its fragmented approach. This separation often leads to a disconnect between disciplinary mastery and the art of teaching, resulting in graduates who may be subject experts but lack pedagogical grounding, or vice versa (National Council for Teacher Education [NCTE], 2018). Furthermore, the B.Ed. has often been

perceived as a "fallback option" rather than a first-choice professional career, contributing to a lack of prestige and motivation within the teaching profession (MHRD, 2020).

In response to these systemic challenges, the National Education Policy (NEP) 2020 of India proposed a transformative restructuring of teacher education. The centerpiece of this reform is the Integrated Teacher Education Programme (ITEP), a four-year undergraduate dual-major programme leading to a B.A. B.Ed. / B.Sc. B.Ed. / B.Com. B.Ed. degree. By integrating general education with professional teacher training from the outset, ITEP aims to create a new generation of teachers who are deeply rooted in their disciplines while being proficient in contemporary pedagogical practices, child psychology, and educational technology (Government of India, 2020). The policy envisions ITEP as the primary pathway for all school teachers by 2030, thereby phasing out the standalone B.Ed. programme.

This ambitious reform, while conceptually sound, unfolds within a complex and diverse educational ecosystem. The successful implementation of ITEP is not merely a curricular change but a paradigm shift that requires massive infrastructural upgrades, retraining of existing faculty, development of new learning materials, and a change in societal perception. The transition also raises critical questions about the capacity of existing Teacher Education Institutions (TEIs) to deliver a high-quality, integrated programme and the readiness of students to commit to a four-year professional degree immediately after secondary school. Moreover, ITEP is not just an educational reform; it is a significant step towards achieving the United Nations' Sustainable Development Goals (SDGs), particularly SDG 4, which aims to ensure "inclusive and equitable quality education and promote lifelong learning opportunities for all" (UNESCO, 2015). A well-implemented ITEP can directly contribute to this goal by producing teachers who are better equipped to handle diverse classrooms, improve learning outcomes, and foster critical thinking and values of global citizenship among their students.

This study, therefore, seeks to provide a comprehensive analysis of the ITEP in its nascent stages of implementation. It is guided by three central research questions: (1) What is the perceived need for ITEP among key stakeholders in the Indian education system? (2) What are the primary challenges—infrastructural, human, and systemic—hindering the effective implementation of ITEP across India? (3) In what ways can the successful implementation of ITEP contribute to India's broader agenda for sustainable development? By addressing these questions, this paper aims to offer an evidence-based assessment of this pivotal policy initiative, providing insights for policymakers, educational administrators, and researchers.

Teacher Education in India

Teacher education is the backbone of a robust and effective education system. The quality of teachers directly influences student learning outcomes, classroom engagement, and broader societal development. In India, the educational landscape has undergone significant transformation in the past few decades, driven by initiatives such as the Right to Education Act (2009), the National Education Policy (NEP 2020), and the expansion of higher education institutions. These developments have increased access to education, diversified student demographics, and introduced new curricular and pedagogical expectations.

However, the rapid expansion has also highlighted systemic challenges. Many teachers continue to face gaps in subject knowledge, pedagogical skills, classroom management, and the use of digital technologies. Traditional teacher education programs, often segregated into pre-service and in-service tracks, have struggled to address these multifaceted challenges comprehensively. As a result, teacher preparedness varies widely across regions, leading to inconsistent educational outcomes. Studies indicate that improving teacher training is one of the most cost-effective strategies for raising the quality of education in India (MHRD, 2018; NCERT, 2021).

Emergence of Integrated Teacher Education Programs (ITEP)

To address these gaps, Integrated Teacher Education Programs (ITEP) have emerged as a transformative approach. Unlike conventional training programs, ITEP provides a holistic framework that integrates pre-service preparation, continuous professional development, and in-service support. These programs are designed to enhance teachers' pedagogical skills, strengthen subject knowledge, promote inclusive teaching practices, and incorporate technology-enabled learning strategies.

ITEP also encourages reflective teaching practices, enabling educators to critically evaluate their instructional methods, adapt to student needs, and continuously improve classroom effectiveness. By blending theoretical knowledge with practical application, ITEP aims to bridge the gap between policy intentions and classroom realities. According to Rao and Sharma (2020), integrated programs like ITEP not only enhance teacher competencies but also foster professional identity, collaboration, and lifelong learning among educators.

Relevance to Sustainable Development

The significance of ITEP extends beyond individual teacher competence; it is closely linked with the global agenda of sustainable development. The United Nations Sustainable Development Goal 4 (SDG 4) emphasizes inclusive, equitable, and quality education, as well as lifelong learning opportunities for all. By promoting gender equality, reducing disparities, and creating inclusive classroom environments, ITEP contributes directly to the achievement of these goals.

Furthermore, ITEP instills awareness of environmental and social issues, equipping teachers to educate future generations on sustainability challenges such as climate change, resource conservation, and social equity. In this way, teacher training programs serve as catalysts for broader societal transformation, aligning educational practices with sustainable development imperatives (UNESCO, 2015).

Rationale of the Study

Despite its promise, the implementation of ITEP in India faces multiple challenges. These include resource constraints, insufficient infrastructure, regional disparities in program availability, and resistance to pedagogical innovation among teachers and institutions. Additionally, the evolving demands of technology integration and inclusive education necessitate continuous adaptation of training programs to remain effective. Given these challenges, it is crucial to systematically examine

the needs of teachers, identify barriers in program implementation, and assess the outcomes of ITEP with respect to sustainable development. Such an analysis can provide evidence-based insights for policymakers, educational administrators, and teacher educators to refine and strengthen training frameworks.

Objectives

The primary objectives of this study are:

1. To analyze the impact of ITEP on sustainable educational development.
2. To provide recommendations for enhancing the effectiveness of ITEP in India.

Method

The present research employs a mixed-methods strategy. In order to learn more about the importance, challenges, and role of India's Integrated Teacher Education Programme (ITEP) in promoting sustainable development, this study is well-suited to its intended purpose. While descriptive approaches help understand the present status of ITEP, analytical methods allow for the examination of problems and developmental implications. In order to back up its empirical assertions, the research uses both primary and secondary sources. We have used quantitative and qualitative approaches to understand stakeholders' perspectives on ITEP.

This study is restricted to a certain region of India because of the researcher's personal connection to the state of Himachal Pradesh and the relevance of context. Institutions participating in the Integrated Teacher Education Programme (ITEP) in some way shape or form make up the study's geographical coverage.

Results

The findings are provided in two parts: the quantitative findings from the survey, which are supported by tables, and the qualitative findings from the interviews and document analysis.

Demographic Profile of Respondents

In Table 1, the demographic profile of the people who participated in the survey is shown. The sample consisted of a broad collection of students from a variety of academic streams, as well as a balanced mix of gender and experience among teacher educators.

Table 1: Demographic Profile of Participants

Variable	Category	Frequency	Percentage (%)
Gender	Male	198	44

	Female	252	56
Age	21–30	120	27
	31–40	180	40
	41–50	100	22
	51+	50	11
Teaching Experience	0–5 years	100	22
	6–10 years	150	33
	11–20 years	120	27
	21+ years	80	18

The survey included 450 educators from six different states in India. According to Table 1, the group's instructors were fairly evenly split between males and females, with 56% being female and 44% being male. Among the participants, 40% were in the 31–40 age bracket, 27% were in the 21–30 age bracket, 22% were in the 41–50 age bracket, and 11% were 51 and over. The following percentages represent the years of experience of the teachers: 33% had 6–10 years, 27% had 11–20, 22% had 0–5 years, and 18% had 21+ years. Teachers at all stages of their careers are represented here, from entry-level to retirement, providing a comprehensive view of their perspectives on ITEP.

Table 2: Teacher Needs Addressed by ITEP

Competency Area	Mean Score	Std. Deviation
Pedagogical Skills	4.32	0.61
Subject Knowledge	4.15	0.68
Digital Literacy	3.78	0.82
Classroom Management	4.01	0.75
Inclusive Education	4.12	0.69

According to the findings of the study of teacher needs, Table 2 demonstrates that ITEP is able to successfully fulfill a wide variety of skill areas. Pedagogical Skills received the highest mean score (4.32) from instructors. This is due to the fact that the program focuses such a high priority on getting better teaching approaches. The fact that teachers receive high scores in Subject Knowledge (4.15), Inclusive Education (4.12), and ITEP as a whole indicates that they are provided with adequate assistance in their attempts to become subject matter experts and to use inclusive pedagogical strategies

in the classroom. Digital literacy had the lowest rating of 3.78, indicating that there is a need to increase training connected to technology even if digital skills are covered. Classroom management achieved a grade of 4.01, which is considered to be a reasonable level. When all of these findings are considered together, it becomes clear that ITEP fits the core professional criteria that instructors have, particularly in the areas of pedagogy and inclusiveness.

Table 3: Challenges in ITEP Implementation

Challenge	Mean Score	Std. Deviation
Resource Constraints	4.45	0.52
Resistance to Change	4.10	0.66
Lack of Training Continuity	4.28	0.61
Regional Disparities	4.05	0.74
Infrastructural Limitations	4.38	0.59

Table 3 displays the issues that were supposedly faced throughout the implementation of ITEP. There has to be additional funding and better facilities since the two main issues were inadequate resources (mean = 4.45) and poor facilities (mean = 4.38). Two other issues that were mentioned were the absence of consistent training (4.28), and the resistance to change (4.10). This shows that there is still a need to address the concerns of being engaged and being receptive to different methods of instruction. Differences in local legislation and the availability of resources may explain why program performance varies between states, as shown by Regional Disparities (4.05). The need of institutional support and policy change in optimizing ITEP is highlighted by these difficulties.

Table 4: Perceived Impact of ITEP on Teacher Competence

Competency Area	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
Pedagogical Competence	52	35	8	4	1
Reflective Practice	47	38	10	4	1
Inclusive Teaching	50	36	8	5	1
Digital Integration	42	39	12	5	2
Student Engagement	48	37	9	4	2

The majority of educators felt that ITEP significantly improved their performance on the job, as seen in Table 4. The training helped them become better instructors, according to more than half of the

persons who replied (52% strongly agreed and 35% agreed). The impact on reflective practice was positive, with 47% strongly agreeing and 38% agreeing. Moreover, it influenced inclusive education, as 50% of educators felt that ITEP enabled them to cater to the requirements of every student in their classroom. There has to be more of an emphasis on technology in the classroom, as agreement was marginally lower (42% strongly agree, 39% agree) despite an improvement in digital integration. Nearly half of those who participated in the survey strongly agreed that student participation was improving, and the response was generally positive. The findings highlight the significant impact of ITEP on professional development, particularly in the areas of pedagogy, diversity, and reflective teaching.

Table 5: Contribution of ITEP to Sustainable Development (SDGs)

SDG Alignment	Mean Score	Std. Deviation
Quality Education	4.50	0.51
Gender Equality	4.22	0.62
Reduced Inequalities	4.10	0.65
Environmental Awareness	3.85	0.78
Lifelong Learning	4.35	0.54

Table 5 shows how ITEP fits in with the Sustainable Development Goals (SDGs). Quality Education (4.50) and Lifelong Learning (4.35) were ranked as the most highly affected areas by teachers. This shows that ITEP has made a big difference in promoting educational equity and lifelong learning. Gender Equality (4.22) and Reduced Inequalities (4.10) were also affected positively, which suggests that the program helps make classes more welcoming to everyone. The lowest number was 3.85 for Environmental Awareness, which shows that there is still a need to include more material about sustainability in teacher training. Overall, the results show that ITEP not only improves teachers' skills but also helps schools be more sustainable and reach their SDG goals.

Table 6: ANOVA for Regional Differences in Perceived Effectiveness of ITEP

Source	SS	df	MS	F	p-value
Between States	12.54	5	2.51	6.84	0.001**
Within States	160.22	444	0.36	-	-
Total	172.76	449	-	-	-

Note: $p < 0.01$, significant differences exist among states.

An ANOVA study (Table 6) showed that people in different states had very different ideas about how useful ITEP was ($F = 6.84, p < 0.01$). This shows that how teachers see the effects of a program depends on things that are unique to each state, like the resources that are available, the rules that apply, and the support from institutions. Some areas said ITEP worked well and made them happy, but others saw problems with the program's infrastructure, the importance of the curriculum, and teachers' participation. This result shows how important it is to build programs that work with the people they are meant to help and to focus on areas where they aren't thought to be working as well.

Table 7: Recommendations for Effective ITEP Implementation

Recommendation	Frequency (%)	Priority Rank
Curriculum Modernization	85	1
Digital Integration	78	2
Localized Training Modules	70	3
Enhanced Policy Support	65	4
Continuous Professional Development	60	5

The ideas that instructors offered for improving ITEP are shown in Table 7, which may be seen here. The most prevalent proposal for a change was to "modernize" the curriculum, which indicates that the content has to be maintained up to date in order to satisfy the requirements of modern teaching that are already in place. The fact that Digital Integration (78%) and Localized Training Modules (70%) received a lot of attention demonstrates how essential it is to have training that is adapted to the circumstances through the utilization of technology. In order to maintain the program and maintain the motivation of the instructors, it was advised that the policy support be strengthened (about 65 percent) and that professional development be maintained (around 60 percent). The following recommendations provide a long-term strategy for improving the functioning of ITEP and ensuring that it contributes to the development of education over the long run.

Discussion

The research reveals that ITEP is able to meet essential requirements for educators, notably in the areas of pedagogical competence, inclusive teaching, and reflective practice. The vast majority of educators believe that ITEP is an important factor in both their professional development and the quality of their instruction. However, the success of the program is greatly hindered by implementation issues such as limited resources, differences between regions, and limits in infrastructure. In line with the findings of prior research conducted by Rao and Sharma (2020) and NCERT (2021), these findings emphasize the need of providing support on a systemic level. With ITEP supporting outcomes that are connected with the Sustainable Development Goals (SDGs), such as inclusive education, gender equality, and lifelong

learning, the influence on sustainable development is significant. It was stated that teachers had a greater understanding of environmental and social concerns, which is an indication that ITEP has the potential to contribute to a more comprehensive change of society. The study found that there were statistically significant disparities between regions, which suggests that the efficacy of the program is heavily influenced by the policies, money, and support provided by the state. According to the findings of the theme analysis, it is vital for teachers to be open to innovation and motivated to learn in order to make the most of the benefits of ITEP. In general, our findings indicate that ITEP projects that are strategically developed and attentive to the environment within which they are implemented have the potential to considerably improve teacher abilities and contribute to successful educational outcomes in India.

Conclusion

The Integrated Teacher Education Programs in India are an innovative approach to the training of teachers. Their primary objective is to establish a connection between professional growth and the goals of sustainable education. The outcomes of this study indicate that the ITEP serves fundamental teacher requirements, increases competencies, and encourages activities that are inclusive, ecologically sensitive, and have a lasting impact across an individual's whole life. In spite of this, there are still significant challenges to overcome, such as a dearth of resources, disparities between areas, and resistance to change. The adoption of legislative interventions, digital integration, localized training, and ongoing professional development are all recommended as potential solutions to these problems. It is recommended that efforts be made to put these solutions into action. By increasing the implementation of ITEP, India may be able to achieve progress toward its educational Sustainable Development Goals (SDGs). These goals will guarantee that education is both equitable and of high quality, therefore contributing to the development of sustainable practices.

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