



Relevance Of Itep In Transforming Teacher Education Programme In The Present Context

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Abstract

One of the main pillars of a progressive country is education. Teachers are the driving force behind the empowerment of individuals with knowledge, beliefs, and skills that significantly contribute to the development of a nation. Teachers stand as one of the most vital components of education. In order to make education more accessible and engaging, technology-enhanced learning has replaced traditional teaching methods. To ensure this, a dynamic teacher education programme is essential. The National Education Policy (NEP) 2020 emphasizes teacher education programmes and recognizes teachers as a key component of high-quality education. To guarantee professionally prepared and skilled teachers, a four-year Integrated Teacher Education Program (ITEP) was suggested. Teachers are prepared for both primary and secondary education through the four-year undergraduate Integrated Teacher Education Programme (ITEP). It integrates pedagogy, disciplinary knowledge, and practical training into one programme, giving teacher candidates a comprehensive education. The researcher tries to investigate the relevance of ITEP in transforming teacher education and its prospective opportunities and future prospects of ITEP in redefining teacher education in India and identifies important challenges linked to it and also provides some suggestion measures regarding it. Using an exploratory strategy, the researcher gathered data from a variety of government documents and publications that were sourced from different books and periodicals.

The 4-year Integrated Teacher Education Programme (ITEP) signifies a transformational approach to teacher training in India as per NEP-2020. A Bachelor of Arts/science/commerce joined with a Bachelor of Education as an inclusive 4-year course, ITEP targets to produce teachers who are subject experts & Capable of pedagogical Skills. ITEP holds Significant relevance in the present educational context, especially light of evolving educational goals, pedagogical needs and national reforms such as the NEP-2020. This paper aimed to critically analyze the Problems, prospects and relevance associated with the implementation of ITEP in India, focusing on its implementation & potential to address systemic inefficiencies in teacher Education. In general, the ITEP course is deliberated to encounter the current & future educational requirement, generating highly qualified & adaptable teachers.

Keyword: -ITEP, Teacher Education reforms, NEP-2020, relevance of ITEP

Introduction

“The purpose of the education system is to develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper and creative imagination, with sound ethical mooring and values. It aims at producing engaged, productive, and contributing citizens for building an equitable, inclusive, and plural society as envisaged by our constitution” [NEP-2020].

The evolving landscape of education requires a dynamic and well-prepared teaching workforce (Jabbar & Barkati, 2024). The fundamental basis of any educational system is teacher education, which influence the efficacy of instruction in the classroom and the learning outcomes of students (Mandal et al., 2025). In India's large and diversified Population, teacher education plays a very important role. A radical Strategy to revamp teacher education is introduced in the NEP-2020 in Recognition of these deficiencies, with the 4-year ITEP serving as a flagship Programme. This innovative approach aims to develop teachers with deep subject knowledge and advanced pedagogical Skills (Jabbar & Barzotigo). The Comprehensive Structure of the program addresses the critical need for teachers, who only academically skinned but also Skilled in modern teaching methods & adaptable to various educational context. The necessity of an immersive & diverse approach to teacher development is emphasized in NEP-2020. As an undergraduate programme, the ITEP Seeks to combine teaching with elements of experiential learning, Sciences & liberal arts. Through establishing a connection between theoretical knowledge & real-world execution, this curriculum aims to develop prospective educators, Critical thinking, Creativity & flexibility (kapadia 2023; Mandal & mete, 2023). Rapid technology improvements India's diverse population necessitate the need for educators who can innovate and adjust to changing classroom situations (Kumar & Kumar, 2019). The adaptation of ITEP is a crucial Step in aligning India's teacher training system with global best practices. However, its implementation is fraught with challenges (Lenka & Singh, 2024) Such as poor faculty training, a lack of adequate infrastructure & a shortage of high-quality teacher education institutions.

The implementation of ITEP Presents chances for innovation & Reform despite these obstacles. Through learning from these systems, ITEP can establish Indian teacher Education as a Standard for the world. Additionally, focus on hands-on learning & the use of technology in teacher preparation presents Substantial opportunities to modernize the field & raise the Standard of instruction (Mahanty, 2023: UNESCO, 2020). The ITEP has surfaced as an innovative way to promote teacher education, by providing a structural framework for an academic Course of study on integrated with professional training program. The Coursework Contained within ITEP not only will provide your future educators with advanced pedagogical Skills, but they will also learn advanced ethical practice, inclusion & Critical thinking.

In today's world we are realizing that we moving towards technology-based instruction in classrooms & more personalized learning experience for Students and at the other hand, the intellectual for a blast of educational ideas & thus ITEP teachers will be a valuable asset who will help to foster an educational experience that is inclusive in nature & allows for the combination of technology and Conventional classroom material while allowing Students the Opportunity to explore & be creative.

Relevance of ITEP in the context of NEP-2020: -

The four-year Integrated Teacher Education Programme (ITEP) envisions the creation of passionate, motivated, qualified, professionally trained, and well-equipped teachers capable of designing and implementing developmentally appropriate learning experiences for students at different stages of school education. The goal of the ITEP is to guarantee that aspiring educators receive the best possible instruction in terms of content, pedagogy, values, and practice.

The National Education Policy 2020 highlights, “Teacher education is vital in creating a pool of school teachers that will shape the next generation. Teacher preparation is an activity that requires multidisciplinary perspectives and knowledge, formation of dispositions and values, and development of practice under the best mentors. Teachers must be grounded in Indian values, languages, knowledge, ethos, and traditions including tribal traditions, while also being well- versed in the latest advances in education and pedagogy” [Para 15.1, NEP 2020].

Four-Year Integrated Teacher Education Programme (ITEP): “Recognizing that the teachers will require training in high-quality content as well as pedagogy, teacher education will gradually be moved by 2030 into multidisciplinary colleges and universities” [Para 5.22, NEP 2020].

“The 4-year integrated B.Ed. offered by such multidisciplinary HEIs will, by 2030, become the minimal degree qualification for school teachers. The 4-year integrated B.Ed. will be a dual-major holistic bachelor's degree, in Education as well as a specialized subject such as a language, history, music, mathematics, computer science, chemistry, economics, art, physical education, etc. Beyond the teaching of cutting-edge pedagogy, the teacher education will include grounding in sociology, history, science, psychology, early childhood care and education, foundational literacy and numeracy, knowledge of India and its values/ethos/art/traditions, and more” [Para 15.5, NEP 2020].

Levels of teacher education programme under NEP-2020:-

Currently, teacher education programmes are phase specific, such as pre-primary, primary, secondary, higher education, and vocational education. Every level is covered under NEP 2020. Middle, secondary, preparatory, and foundational. The university/higher education system will incorporate this instruction. A university-level dual degree undergraduate programme that combines education with specialized courses will offer a four-year pre-service teacher training programme. Both teacher training courses and disciplinary studies will be covered in this curriculum. Teachers will be prepared for a variety of tracks by the B.Ed. programme, including generalist teachers in foundational and preparatory schools, middle and secondary school subject teachers, special education teachers, teachers of art (including visual and performing arts), teachers for vocational education and teachers of physical education.

Why ITEP is important?

The National Council for Teacher Education (NCTE) launched the historic ITEP programme to guarantee that exceptional students pursue careers in teaching. Following the updated educational framework specified in the National Education Policy (NEP) of 2020, its main goal is to provide teachers with the abilities and information required to instruct students at the Foundational, Preparatory, Middle, and Secondary stages. In addition to being well-versed in the most recent developments in education and pedagogy, a student enrolled in this programme will be firmly rooted in Indian values, languages, knowledge, ethos, and tribal tradition. The curriculum addresses the demand for skills relevant to the twenty-first century. It is anticipated that ITEP would be essential to reviving the teacher education industry. The following points can be used to highlight the importance of ITEP:

- ITEP offers prospective educators the opportunity to finish an integrated degree program in four years, which is one year less than the five years needed to get a B.Ed.
- This extensive teacher training program gives prospective educators in-depth pedagogical knowledge in important domains like early childhood care and education (ECCE), inclusive education, and basic literacy and numeracy.
- In addition to being prepared for the demands of 21st-century global benchmarks, ITEP is recognized as a comprehensive approach that aims to develop educators who have a deep understanding of Indian values, languages, cultures, traditions, arts, and tribal customs.
- ITEP is a thorough Approach that gives future teachers hands-on experience through intensive school-based experiences. Practice teaching and internships to build a strong foundation in pedagogical and classroom management skills within an authentic school setting.
- ITEP prioritizes the term lifelong learning and advocates for the continuous professional growth of teachers.
- In addition to the teacher education curriculum, ITEP invites students to choose their major and minor subject papers according to their interests and goals.
- ITEP aims to give teachers a thorough understanding of their subject matter and teaching strategies by offering a holistic teacher education viewpoint. Additionally, student-teachers become proficient in a variety of areas, including science, math, the humanities, and the social sciences.
- ITEP is a comprehensive approach that uses intensive school-based activities to provide aspiring teachers with practical experience.
- ITEP places a high value on lifelong learning and promotes teachers' ongoing professional development. Practice teaching and internships help students develop a solid foundation in pedagogical and classroom management skills in a real school environment.

Transforming teacher education by implementing the NEP-2020:

Include setting up the following multidisciplinary institutions for comprehensive teacher education programmes.

- Educational institutions can offer new courses to support teachers, teacher educators, and students, both online and offline.
- Additionally, the possibility of obtaining dual degrees simultaneously can be made available in these multidisciplinary institutions.
- The promotion of multidisciplinary research within teacher education is also highlighted.
- Furthermore, there is potential for Teacher training for new teaching pedagogies for various subjects like Commerce and Chemistry.
- Lastly, there is ample opportunity for conducting Action Research by teachers, teacher educators, and students alike.

Objectives: -

- To study the vision and structure of ITEP under NEP-2020.
- To find out the distinctive feature related to the effective implementation of ITEP in India.
- To Study the Relevance of ITEP in transforming professionally competent and adaptable teacher education programme in the present educational context.
- To identify the major challenges and opportunity associated with the implementation of ITEP in India.
- To suggest strategic measures required for the effective implementation and sustainability of ITEP.

Methodology

This research paper employed an exploratory approach to collect and analyse information, aiming to gain a broad understanding of the subject without being limited by predefined hypotheses. The researcher gathered data from diverse and credible sources to ensure depth and reliability. These included peer-reviewed research articles, academic journals, reputable websites, policy documents, and official government reports. By integrating insights from multiple perspectives, the study was able to identify emerging themes, highlight gaps in existing literature, and provide a balanced foundation for discussion. This methodological choice ensured a comprehensive exploration of the research problem.

Vision of ITEP

The four-year Integrated Teacher Education Programme (ITEP) envisions the creation of passionate, motivated, qualified, professionally trained, and well-equipped teachers capable of designing and implementing developmentally appropriate learning experiences for students at different stages of school education. The ITEP seeks to ensure that the prospective teachers are given the highest quality education in content, pedagogy, values, and practice. The vision for the Integrated Teacher Education Programme (ITEP) is to create a new generation of passionate, qualified, and well-equipped teachers who are trained through an interdisciplinary and experiential approach. This programme aims to reform teacher education by equipping prospective teachers with skills in modern pedagogy, early childhood care and education (ECCE), foundational literacy and numeracy (FLN), and an understanding of Indian values and traditions, preparing them for 21st-century needs and global standards.

Structure of the Course:

Curriculum:

ITEP curriculum is based on some important principles. It combines a strong theoretical understanding of foundations, theories, basics of education as well as extensive training and internships. Through this curriculum, students get ample opportunity to deeply engage with theoretical aspects of education and applied from of it with the connection with society and ethics. School experience and internship will enhance the students to adjust with the real world with their theoretical knowledge and gather overall experience to make

proper lesson plans, schedules and all other necessary activities associated with the teaching-learning perspectives. ITEP comprises the following curricular components: Student Induction Programme (Common to all student-teachers across stage specific specialisation. To be organised during the first two weeks of Semester-1) • Foundations of Education (30 Credits) • Disciplinary/Interdisciplinary Courses (64 Credits) • Stage-Specific Content - Cum - Pedagogy Courses (16 Credits) • Ability Enhancement and Value-Added Courses (28 Credits) • School Experience, including Internship in Teaching (20 Credits) • Community Engagement and Service (2 Credits)

The National Council for Teacher Education made provisions for the students of ITEP to learn the following subjects in the foundation stage of their course. Such as evolution of Indian Education; Child Development and Educational Psychology; Philosophical and Sociological Foundation of Education; Assessment and Evaluation; Inclusive Education; Curriculum Planning and Development; Perspective on School Leadership and Management; Education Policy Analysis and the provision for elective courses. (Roy.k, 2025)

Distinctive features of the ITEP Curriculum:

1. Bridging the gap: It augments the pupil's skills and helps in integrating academic knowledge with pedagogical skills. In order to provide a coherent educational experience, it offers an exploration course that blends a Bachelor of Arts, Science, or Commerce with a Bachelor of Education. It deliberates the assistances of combining professional teaching abilities with academic subject knowledge and how this meets the need for instructors who are well-rounded

2. Enhancing teaching capability: It is through practical training skill of the pupil gets elevated and can help improve teaching competency in tune with new trends and innovations. The practical components of ITEP of course include internships, micro-teaching sessions, and real-world classroom exposure. It highlights how these practical experiences prepare future teachers to handle diverse educational environments and effectively implement modern teaching methods.

3. Adapting to the Digital Age: Technology and personalized learning are the pertinent targets that ITEP is primarily focused on. This four-year integrated ITEP course prepares teachers to incorporate digital tools and personalized learning approaches into their teaching. It examines the programmes emphasis on technology integration and its role in meeting the requirements of today's tech-savvy students.

4. Fostering inclusiveness: inclusiveness and critical thinking in education indeed are intertwined comprehensively. It is quite an apparent concept that ITEP's commitment to promoting inclusiveness, moral values, and critical thinking. It illustrates how the programme prepares teachers to create supportive learning environments that encourage inquiry, creativity, and respect for diversity.

5. Meeting Future Challenges: The role of ITEP in shaping education is understood in its curriculum and syllabus constructions. It forwards and looks at the perception of how ITEP addresses the evolving demands of the education sector. It deliberates the programmes role in preparing educators for future encounters and its connotation in driving educational reform and improvement. Each subtitle delivers a focused examination of diverse facets of ITEP, expounding on its connotation in determining the future of education. (Khan, 2021).

6. Innovative Strategies for Future-Ready Educators: The Integrated Teacher Education Programme in India, or, ITEP, seeks to respond to challenges that arise in education in the future through multiple innovative practice and approaches. Here are some examples of this responsiveness to future issues. The Integrated Teacher Education Programmes objective in India is to respond to future education challenges through various innovative methodologies and approaches.

7. Competency-based framework: ITEP's curriculum focuses on instilling new competencies such as; critical thinking, problem-solving, and digital literacy, which are necessary to address educational needs in the future.

8. Integrated learning: ITEP combines general education with pedagogical education and preparedness so that teacher candidates acquire and succeed in both subject-specific scholarship and educational strategies. This creates a well-rounded educator that is broadly prepared to engage with complexities in the learning environments.

9. Student-centric pedagogy: ITEP is committed to pedagogy that promotes active learning, pupil engagement and is quality assured in educational experiences through personalized learning and assessment. Therefore, ITEP teachers can foster an adaptive and personalized best fit learning environment to maximize understanding and skill depth for all students. Use of technology: The program will attempt to advance digital tool use and assessments, so teachers learn to respond through using technology and emerging curricular issues related to technology.

10. Continuous learning: ITEP supports continuous professional knowledge and learning for teachers through monthly workshops, professional learning sessions, and collegial support opportunities to keep educators learning at the forefront of educational practices (Dr. S. Abdul Jabbar & Dr. Mhd Gufran Barkati, 2024).

Relevance of the ITEP in the present context-

ITEP holds significant relevance in the Present educational context, especially in light of evolving educational goals, pedagogical needs and national reforms Such as the NFP-2020. Here's a structured overview of its current relevance

1. Alignment with NEP-2020: -

NEP-2020 envisions transforming the education system to meet the need of 21st-century learners. ITEP is a flagship initiative under NEP-2020 to integrate content, pedagogy and practices over 4 years Period. It aims to replace fragmented B.Ed. models with a holistic, multidisciplinary teacher education framework.

2. Improvement in teacher quality: -

Traditional teacher training often lacked rigorous preparation and classroom exposure. ITEP offers a Practice based Curriculum with continuous mentoring, internships and School immersion. Better-trained teachers are more equipped to foster critical thinking, creativity & inclusivity in classroom.

3. Early Professional Development: -

Students can enter ITEP right after class 12, allowing them to receive sustained and focused training. This reduces redundant coursework and gives more time for foundational educational Psychology, Pedagogy & Curriculum Studies

4. Multidisciplinary and integrated approach: - ITEP encourages integration with liberal arts, Science & vocational education, fostering a broader understanding of the world. Helps future teachers be more adaptable and capable of teaching in a multilingual and multicultural Environment.

5. Use of Technology & Innovation: -

Modern teacher education requires skills in digital pedagogy, ICT tools and blended learning models. ITEP curricular emphasize these areas to prepare teachers for hybrid and technology enabled learning environment.

6. Addressing Teacher Shortage & Attrition: -

ITEP can create a pipeline of professionally ready teachers, reducing the dependence on short-term or under qualified personnel.

7. Global Relevance Competitiveness: -

By improving teacher quality and aligning with global best practices. ITEP enhances India's ability to meet international benchmarks like SDG-4 (Quality education).

Role of ITEP in developing professionally competent and adaptable teachers: -

The Integrated Teacher Education Programme (ITEP), introduced under the National Education Policy (NEP) 2020, plays a crucial role in preparing professionally competent and adaptable teachers to meet the demands of contemporary education. Its integrated and multidisciplinary structure contributes to teacher quality in the following ways:

1. Emphasis on Practical Training and Field Experience: -

The programme provides continuous school-based internships, classroom observations, and teaching practice. These experiences help student-teachers adapt to real classroom situations, manage diverse learners, and apply theoretical knowledge in practical contexts.

2. Development of 21st-Century Teaching Skills: -

ITEP promotes the use of technology-enhanced learning, critical thinking, creativity, and problem-solving skills. Such exposure prepares teachers to adapt to changing educational environments and evolving learner needs.

3. Focus on Professional Values and Ethics: -

Through courses on ethics, inclusive education, and socio-cultural perspectives, ITEP nurtures reflective practitioners who demonstrate professional responsibility, empathy, and adaptability in diverse educational settings.

4. Multidisciplinary and Holistic Approach: -

By integrating arts, sciences, and vocational studies, ITEP fosters holistic development and flexibility among teachers. This multidisciplinary exposure enables teachers to handle interdisciplinary curricula and innovative pedagogical practices.

5. Continuous Assessment and Reflective Practice: -

ITEP emphasizes formative assessment, self-reflection, and feedback. These practices encourage lifelong learning and professional growth, essential traits of adaptable teachers.

Challenges in implementing ITEP in India

The implementation of the 4-year Integrated Teacher Education Programme (ITEP) under the National Education Policy (NEP) 2020 is a bold initiative aimed at transforming teacher education in India. However, the programme faces numerous challenges that span infrastructure, policy, equity, and systemic inefficiencies.

1. Infrastructural Deficiencies: -In many Teacher Education Institutions (TEIs), especially in rural and semi-urban areas, poor infrastructure, lack of digital tools, financial constraints, and urban-rural disparities hinder quality teacher education and standardization (Lenka & Singh, 2024; Sahu et al., 2020; Kapadia, 2023; Nial et al., 2023; Warsi, 2023).

2. Faculty Preparedness and Training: -The success of ITEP is limited by faculty unpreparedness, lack of exposure to innovative methods, absence of regular training, minimal global practice integration, and weak incentives for professional development (Anand & Singh, 2025; Mandal & Mete, 2023; Patel & Panda, 2024; Chakraborty, 2022).

3. Equity and Accessibility: - Ensuring equitable access to ITEP remains a significant challenge, particularly for students from marginalized communities. High fees, limited TEIs, and low awareness restrict marginalized students' access to ITEP, while existing financial aid remains insufficient (Singh & Mishra, 2023; Warsi, 2023; Chakraborty, 2022).

4. Student Perception and Adaptation: - Student-teachers often expressed concerns regarding the practicality and feasibility of the 4-year programme. Student-teachers doubt the 4-year program's practicality, citing duration, limited career alignment, and lack of mentorship, though stronger experiential learning and alumni examples could boost confidence (Meenakshi, 2023; Warsi, 2023; Hemmerich et al., 2015).

5. Technological Barriers: - While ITEP emphasizes technology integration, many TEIs lack the technological proficiency and digital infrastructure needed to successfully integrate technology enabled learning. ITEP faces challenges from poor digital infrastructure, urban-rural divides, and low digital literacy among teachers and students, requiring focused digital training programs (Tilak & Bandyopadhyay, 2023; Chakraborty, 2022; Warsi, 2023).

6. Financial Constraints: - The financial burden of implementing ITEP affects both institutions and students. ITEP implementation strains TEIs and students financially due to high costs and limited aid, calling for greater government support and public-private partnerships (Kapadia, 2023; Singh & Mishra, 2023; Patel & Panda, 2024).

7. Curriculum Design and Standardization: - Designing a curriculum that effectively integrates pedagogy with liberal arts and sciences is a complex task. The lack of clarity, standardization, and pilot testing in ITEP curriculum design has created confusion and inconsistencies in its implementation (Chakraborty, 2022; Warsi, 2023).

8. High Dropout Risk: - Given the 4-year duration of ITEP, there is a heightened risk of student attrition due to economic or social constraints. Chakraborty (2022) noted that students from economically disadvantaged backgrounds are particularly vulnerable to dropping out, especially if financial aid and scholarships are insufficient.

9. Insufficient Teacher Recruitment Alignment: - ITEP is designed to produce highly skilled teachers, but Sahu et al. (2020) pointed out that it is not yet fully aligned with the existing teacher recruitment and employment frameworks in India. The lack of clarity regarding how ITEP graduates will be prioritized in recruitment processes creates uncertainty and may discourage enrollment in the program.

10. Monitoring and Evaluation Deficiencies: - A robust monitoring and evaluation mechanism is essential to assess the effectiveness of ITEP. However, Singh & Mishra (2023) identified the lack of systematic evaluation tools as a major challenge. Without real-time feedback and outcome measurement, it becomes difficult to make data-driven decisions to refine and improve the program.

Opportunities in ITEP in India

The 4-year Integrated Teacher Education Programme (ITEP), introduced under the National Education Policy (NEP) 2020, offers a transformative framework to address systemic gaps in teacher education. By integrating interdisciplinary learning, experiential training, and global best practices, ITEP presents numerous opportunities to enhance the quality and inclusivity of teacher education in India.

- 1. Bridging the Gap between Theory and Practice:** - ITEP's emphasis on experiential learning, including fieldwork and internships, ensures that aspiring teachers acquire practical skills to manage classroom challenges. This approach reduces the gap between theoretical knowledge and practical application, promoting classroom readiness (Behera, 2020). Additionally, partnerships between Teacher Education Institutions (TEIs) and schools offer opportunities for mentorship and pedagogical innovation (Meenakshi, 2023).
- 2. Promoting Interdisciplinary Learning:** - The integration of pedagogy with liberal arts and sciences fosters critical thinking, creativity, and adaptability among educators (Mahanta, 2023). This interdisciplinary approach prepares teachers to meet diverse classroom needs and promotes holistic development (Kapadia, 2023). Such a framework also aligns with global trends in teacher education, enhancing the international competitiveness of Indian educators (Patel & Panda, 2024; Lenka & Singh, 2024).
- 3. Strengthening Teacher Education Institutions (TEIs)** - The implementation of ITEP has boosted resource mobilization for upgrading Teacher Education Institutions (TEIs), including the adoption of digital tools and modern facilities. These infrastructural improvements benefit both pre-service and in-service teacher training, creating a stronger ecosystem for teacher education (Bhatt, 2020). Such upgrades can also enhance the overall quality of education provided by TEIs (Nial et al., 2023).
- 4. Promoting Equity and Inclusivity:** - ITEP provides an opportunity to address long-standing inequities in access to quality teacher education. Targeted financial aid programs, such as scholarships and fee subsidies, can promote inclusivity and ensure access for students from marginalized communities (Chakraborty, 2022). Additionally, fostering a diverse teaching workforce enhances equity in education delivery, especially in underserved areas (Naaz & Kumari, 2025).

5. **Supporting Continuous Professional Development (CPD):** -ITEP supports lifelong learning and professional growth among educators by aligning its curriculum with Continuous Professional Development (CPD) frameworks, ensuring that teachers stay updated with advances in pedagogy, technology, and content knowledge (Anand & Singh, 2025). Embedded CPD opportunities further encourage innovation and adaptability in teaching practices, fostering a culture of excellence (Patel & Panda, 2024; Kulal et al., 2024).
6. **Encouraging Innovation in Curriculum Design:** -ITEP's interdisciplinary approach fosters collaboration among educators, researchers, and policymakers, creating opportunities for innovation in curriculum design. This collaborative model strengthens the connection between academic research and classroom practices, leading to more effective educational strategies (Chakraborty, 2022). Moreover, such collaboration can drive systemic reforms, enhancing the overall standard of education in India (Naaz & Kumari, 2025).
7. **Enhancing Teacher Autonomy:** - By equipping educators with a broad knowledge base and practical skills, ITEP fosters greater autonomy in teaching practices. Patel & Panda (2024) argued that this autonomy encourages educators to be creative in the classroom and adjust to the individual needs of each student, contributing to improved learning outcomes.
8. **Contributing to National Educational Goals:** - By aligning with NEP 2020's vision of inclusive and quality education, ITEP contributes to broader national educational goals. Chakraborty (2022) highlighted that the program's focus on foundational literacy, numeracy, and ECCE supports India's efforts to achieve universal education and improve learning outcomes across all levels.

Suggestive measures for successful implementation of ITEP:

The researcher has provided some suggestive measures for successful implementation of ITEP:

1. It is urgently required to shift people's perspectives so they will embrace this path. In this sense, community preparation is essential. This is achievable through intentional dialogue and the planning of seminars, workshops, and awareness campaigns.
2. For this course to function smoothly, adequate and suitable infrastructures are crucial. Laboratory and other equipment are necessary to provide students with superior science knowledge and teaching. It is necessary to build a sizable number of classrooms, labs, language rooms, computer labs, etc.
3. Teachers are the backbone in this course. Therefore, it is crucial to hire a large number of highly qualified and experienced teachers. Teachers has expertise in a variety of fields, including science, the humanities, the social sciences, pedagogy, and more.
4. Since the majority of students have low incomes, a minimum course fee is required for the aforementioned course. Strict regulations must be upheld in this regard when it comes to private institutions and organizations.
5. The course's suggested curriculum is highly pertinent, but appropriate instruction and awareness of curriculum transactions and knowledge are essential.
6. This course includes connections to many other courses and streams, so it requires a considerable number of qualified and experienced instructors.
7. The course requires students to be conversant with both multicultural and multidisciplinary environments. Indian cultures, customs, ethics, and value systems must be taught to them.
8. Teacher educators should engage in continuous professional development through initiatives like NISHTHA, SWAYAM, and the Malaviya Mission Teacher Training Programme, along with capacity-building programmes and workshops, to update their pedagogical and professional competencies. Such ongoing development enables them to effectively implement innovative, multidisciplinary teaching approaches aligned with the objectives of the Integrated Teacher Education Programme (ITEP).
9. Structured mentorship programmes should be created to support teacher educators in guiding student teachers effectively. These programmes help integrate theoretical knowledge with practical classroom experience while encouraging active participation in curricular and co-curricular activities.

10. Teacher recruitment policies should be revised to align with the multidisciplinary structure of ITEP. Preference should be given to candidates with a B.Ed. and Ph.D., teaching experience, digital literacy, research skills, and strong pedagogical methodology.
11. Awareness and advocacy should be promoted to support ITEP graduates and update recruitment norms. Social media, print media, seminars, and conferences can be used for this purpose.
12. Educational institutions should invest in infrastructure, digital technologies, and learning resources for effective ITEP implementation. Policymakers should increase education spending from 3% to 6% of GDP, supported by private and charitable partnerships.
13. Socio-economic barriers faced by aspiring teachers from marginalized communities must be addressed. Providing scholarships and interest-free study loans can ensure equitable access to ITEP.
14. ITEP curriculum design faces challenges due to lack of clarity, standardization, and pilot testing, leading to implementation issues. Annual curriculum reforms can help ensure better integration of pedagogy with liberal arts and sciences.

Results: -

The result of a comprehensive investigation into the relevance of ITEP in transforming teacher education programme examined that ITEP do not just focus only on teaching practices in education but might consider education policy, curriculum development and research. In fact, that interdisciplinary nature of the ITEP support educators with the opportunity to branch out and work in many areas of education such as, curriculum design, educational technology and policy research. So, ITEP holds significant relevance in the present educational context, especially in light of evolving educational goals, pedagogical needs and national reforms such as the NEP- 2020. An integrated teacher education programme represents a proactive approach to the development of capable, flexible and caring educators. The ITEP is an important advancement in teacher preparation that combines academic examinership with educational practices to cultivate a new generation of educators.

The Integrated Teacher Education Programme (ITEP) is highly relevant today as it aligns with the vision of NEP-2020 by transforming teacher preparation into a more holistic and future-oriented process. It effectively bridges the gap between theory and practice, ensuring that prospective teachers not only gain strong foundational knowledge but also acquire practical skills to address real classroom challenges. By focusing on inclusivity and equity, ITEP supports the creation of an education system that caters to diverse learners and promotes quality learning outcomes. Ultimately, it produces better equipped, future-ready teachers who can drive innovation and excellence in education.

Conclusion: -

The Integrated Teacher Education Programme (ITEP) emerges as a transformative initiative in reimagining teacher education in India, especially within the framework of the National Education Policy (NEP-2020). By integrating subject knowledge, pedagogical skills, experiential learning, and interdisciplinary approaches, ITEP creates a strong foundation for preparing teachers who are both academically competent and practically skilled. Its focus on inclusivity, equity, and adaptability equips educators to meet the diverse learning needs of India's vast and multicultural population, while also aligning with global standards of teacher preparation.

Though challenges such as infrastructural gaps, faculty training deficiencies, financial constraints, and limited accessibility pose hurdles, these also present opportunities for systemic reform and innovation in teacher education. With sustained policy support, investment in capacity building, and effective monitoring, ITEP has the potential to set a global benchmark in teacher preparation. Furthermore, its emphasis on digital pedagogy, critical thinking, and continuous professional development ensures that future educators are future-ready and capable of addressing emerging challenges in a rapidly evolving educational landscape. In essence, ITEP represents not merely a reform, but a forward-looking vision one that seeks to cultivate a new generation of transformative, ethical, and competent teachers who will shape the future of education in India and beyond.

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