

Encouraging Inclusive Education: Using Open Educational Resources to Meet Various Needs and Learning Styles in the Integrated Teacher Education Programme

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Abstract

The National Education Policy 2020 in India focuses on the Integrated Teacher Education Programme (ITEP) for holistic teacher preparation, aiming for inclusive education. Open Educational Resources (OER) offer a unique opportunity for educators to tailor instructional materials to diverse learning needs. This paper suggests that embracing OER can create a more equitable and just education system for all.

Keywords: *Inclusive Education, Open Educational Resources (OER), NEP 2020, Integrated Teacher Education Programme (ITEP), Diverse Learning Needs, Learning Style*

Introduction

Inclusive education is a holistic approach that values diversity, promotes equal opportunities, and creates supportive learning environments for all students. It goes beyond admitting students from diverse backgrounds and requires educators equipped with the necessary knowledge, skills, and resources to create meaningful learning.

The Integrated Teacher Education Programme (ITEP) is a transformative initiative introduced by the National Education Policy (NEP) 2020 in India, offering a 4-year holistic undergraduate degree programme that integrates subject specialisation with pedagogical training. Key features of ITEP include a dual-major bachelor's degree, a focus on foundational, preparatory, middle, and secondary stages, a holistic approach, experiential learning, a multidisciplinary environment, field experience, and technology integration. Benefits of ITEP include enhanced teacher quality, talent attraction, improved student learning, strengthening the education system, reducing teacher shortages, increasing job opportunities, higher salaries, and improved student outcomes.

Open Educational Resources (OER) are a growing movement in education that offers free and openly accessible learning materials to address educational inequities. Researchers are

exploring the roadmap for leveraging OER to address diverse needs and learning styles in the Integrated Teacher Education Program.

Hence, by keeping these features in mind, researchers are exploring the roadmap for leveraging open educational resources to address diverse needs and learning styles in the Integrated Teacher Education Program.

Inclusive Education

An approach to teaching and learning known as inclusive education acknowledges and values the diversity among all students. It seeks to provide equal opportunities for education and promote the full participation, success, and well-being of every student, regardless of their abilities, backgrounds, or differences. Inclusive education goes beyond simply admitting students from diverse backgrounds into the classroom. It necessitates providing them with equitable access to quality learning opportunities that cater to their individual needs and learning styles. This requires educators who are equipped with the necessary knowledge, skills, and resources to create and adapt their teaching practices to ensure meaningful learning for all students.

Key principles and elements associated with inclusive education:

1. Diversity and Individual Differences
2. Equal Opportunities for Learning
3. Accessibility and Accommodation
4. Collaborative Teaching and Learning
5. Universal Design for Learning (UDL)
6. Positive School Culture and Climate
7. Early Intervention and Support
8. Professional Development for Educators
9. Student- Centred Approach
10. Promotion of Social Inclusion
11. Legal and Policy Frameworks

Inclusive education is a holistic, student-centred approach that values diversity, promotes equal opportunities, and creates supportive learning environments, recognising education as a fundamental human right.

Integrated Teacher Education Programme (ITEP)

The Integrated Teacher Education Programme (ITEP) is a transformative initiative introduced by the National Education Policy (NEP) 2020 in India. It aims to revolutionise

teacher education by offering a 4-year holistic undergraduate degree programme that integrates subject specialisation with pedagogical training. This comprehensive approach seeks to attract talented individuals to the teaching profession and equip them with the necessary skills and knowledge to excel in the 21st-century classroom.

Key features of ITEP:

- ***4-year Bachelor's Degree:*** ITEP awards a dual-major bachelor's degree, combining education with chosen subjects like science, mathematics, languages, and history, fostering deep subject understanding and pedagogical expertise.
- ***Focus on Foundational, Preparatory, Middle, and Secondary stages:*** ITEP equips teachers to teach in the new 5+3+3+4 school structure, preparing them to handle specific needs and challenges across early childhood to secondary school.
- ***Holistic approach:*** ITEP enhances teacher education by incorporating critical thinking, creativity, problem-solving, collaboration, art-integrated learning, environmental education, and value education to prepare well-rounded teachers for 21st-century learners.
- ***Experiential learning:*** ITEP promotes hands-on learning through field internships, practicum experiences, and research projects, enabling students to apply theoretical knowledge in real-world settings and enhance their teaching skills.
- ***Multidisciplinary Environment:*** ITEP encourages collaboration and knowledge exchange across disciplines, preparing teachers to navigate the interconnectedness of various subjects in the modern curriculum.
- ***Field experience:*** ITEP includes a strong emphasis on field experience, with students spending time in schools and other educational settings throughout their program. This allows them to apply their theoretical knowledge to real-world situations and develop their teaching skills under the guidance of experienced mentors.
- ***Technology integration:*** ITEP recognises the importance of technology in education and prepares future teachers to effectively integrate technology into their teaching practices.

Benefits of ITEP

ITEP graduates will enhance teacher quality, attract talent, and improve student learning. They will address the teacher shortage by attracting more students and reducing the time it takes to become a qualified teacher. ITEP graduates will secure more job opportunities, and NEP 2020 recommends higher salaries for teachers with ITEP qualifications. Studies show that well-prepared students have better academic outcomes and are more likely to succeed in life.

Open Educational Resources (OER)

OER is a growing movement in education, offering free and openly accessible learning materials that can revolutionise the way we learn and teach. OER are any teaching, learning, and research materials in any format (textbooks, videos, simulations, etc.) that are:

- ***Freely accessible:*** Anyone can use them without paying fees or subscriptions.
- ***Openly licensed:*** The materials are released under an open license, allowing users to access, reuse, adapt, and redistribute them, including making copies, translating, and modifying them to meet specific needs.

Types of OER:

Numerous types of Online Educational Resources (OER) are available across various subjects and learning levels, including:

- ***Course materials:*** Full courses, textbooks, lecture notes, assignments, and quizzes.
- ***Open textbooks:*** freely available textbooks that can be used instead of traditional, expensive ones.
- ***Multimedia:*** videos, audio recordings, podcasts, and simulations.
- ***Research articles and data:*** scholarly research papers and datasets that can be used for educational purposes.
- ***Interactive tools and games:*** online platforms and applications that make learning more engaging and interactive.

Finding and using OER

Open Educational Resources (OER) are a valuable resource for accessing quality learning materials for both teachers and students. Examples include OER Commons, OpenStax, UNESCO OER Portal, Creative Commons, e-PG Pathshala, National Digital Library of India (NDLI), SWAYAM, NPTEL, IGNOU eGyanKosh, NCERT, Sakshat, Samarth Portal, and CEMCA. These platforms provide free access to high-quality college textbooks, supplementary materials, and multimedia content for various subjects. NEP 2020 encourages the development and use of high-quality OER in teacher education programs. These resources help provide access to quality learning materials for both teachers and students.

Benefits of OER

OER can increase education access, reduce costs, and improve learning outcomes by providing personalised experiences. It fosters creativity and collaboration, promoting continuous improvement. OER also promotes equity and inclusion by providing high-quality materials for all learners, regardless of location or background, and adapting to different learning styles.

Challenges and future of OER

OER, while offering numerous benefits, faces challenges like quality and sustainability, a lack of awareness and adoption among educators, and licencing issues. Despite these, the future of OER is promising as more people realise its benefits and access high-quality resources.

Major Studies in Inclusive Education, OER And ITEP

Perception of Student-Teachers on the 4-Year Integrated Teacher Education Programme (ITEP) (Meenakshi, 2023)ⁱ found that student-teachers generally have a positive attitude towards ITEP. They appreciate the program's holistic approach, multidisciplinary learning, and focus on field experience. However, some concerns were raised regarding the workload and the need for better infrastructure and faculty support.

Strategies to Implement the Integrated Teacher Education Programme (ITEP) with Respect to NEP 2020 (Chakraborty, 2022)ⁱⁱ outline various strategies for successful ITEP implementation. These include developing a well-designed curriculum, recruiting qualified faculty, providing adequate infrastructure, and creating a supportive learning environment.

Futuristic Trends of ITEP (Integrated Teacher Education Program) In India Under the Light of Nep-2020, a Boon or Bane (Khan, 2021)ⁱⁱⁱ discusses the potential benefits and challenges of ITEP. The author argues that the programme has the potential to improve the quality of teacher education in India, but its success will depend on careful planning and implementation.

Open Educational Resources: A Catalyst for Innovation in Education (Orr et al., 2015)^{iv} highlights the potential of OER to promote innovation in education. The report discusses how OER can be used to create more personalised and engaging learning experiences.

In summary, research on ITEP and OER integration is in its early stages, and more studies are needed to understand its impact and identify effective implementation strategies. OER promotes inclusive education within teacher education programs. However, there is a need for further research that:

- addresses diverse learning styles and disabilities beyond a singular focus on accessibility.
- explores the development and utilisation of culturally relevant OER in specific contexts, like ITEP in India.
- provides concrete implementation strategies and frameworks for integrating OER into teacher education curriculum and pedagogical practices.
- evaluates the long-term impact of OER integration on achieving inclusive learning outcomes within ITEP programs.

Future research can enhance the evidence base for utilising OER as a powerful tool for promoting inclusive education and empowering educators to meet diverse student needs.

Potential of OER to Empower ITEP to Emphasis Inclusive Education

Open Educational Resources (OER) can significantly enhance Integrated Teacher Education Programs (ITEP) by promoting inclusive education and addressing diverse learning needs and abilities. Here are some ways in which OER can contribute to the empowerment of ITEP programs, with an emphasis on inclusive education:

Diverse and Inclusive Content: OER offers diverse, inclusive content, aiding teacher candidates in ITEP programmes in understanding and appreciating classroom diversity and promoting inclusive practises from the start.

Universal Design for Learning (UDL): OER aids in implementing Universal Design for Learning principles, offering resources for diverse learning styles, and training future educators in inclusive lesson plans.

Customization for Inclusive Settings: OER's adaptability enables teacher educators to create materials for inclusive settings, promoting an inclusive mindset in teaching practises by providing resources that can be customised to meet diverse learners' needs.

Collaborative Resource Development: OER promotes collaborative resource development and sharing between teacher educators and practitioners, focusing on inclusive education strategies and effective practices to enhance future teacher preparation.

Accessible Learning Materials: OER promotes collaborative resource development and sharing between teacher educators and practitioners, focusing on inclusive education strategies and effective practises to enhance future teacher preparation.

Inclusive Pedagogies: OER showcases inclusive pedagogies and teaching strategies, allowing teacher candidates to explore and adopt these methods to create an inclusive learning environment for diverse students.

Cultural Competence and Sensitivity: OER promotes cultural competence and sensitivity by providing teacher candidates with resources to understand and address cultural differences, fostering an inclusive and respectful learning environment.

Case Studies and Best Practices: OER can feature case studies and best practises in inclusive education. Teacher candidates can learn from real-world examples, gaining insights into effective strategies for accommodating diverse learners in integrated classrooms.

Professional Development for Inclusive Practices: OER provides a continuous professional development platform for teacher educators, enabling them to update their knowledge and skills, preparing them for inclusive classrooms.

Community Engagement and Partnerships: OER promotes community engagement and partnerships in inclusive education, enabling teacher candidates to collaborate with parents, support services, and community organisations to create a welcoming environment.

Flexibility and Adaptability: OERs enable teacher educators to tailor materials to meet diverse student needs, incorporating content that caters to different learning styles, abilities, and cultural backgrounds.

Real-World Examples and Case Studies: OER provides practical examples and case studies for successful inclusive education practices, enabling teacher candidates to learn effective strategies for accommodating diverse learners in integrated classrooms.

Culturally Responsive Teaching: OER promotes culturally responsive teaching, providing resources for teacher candidates to develop practises that cater to the diverse cultural backgrounds of future students.

Inclusive Pedagogies and Teaching Strategies: OER offers diverse inclusive pedagogies and teaching strategies for teacher candidates to learn and implement, fostering an inclusive learning environment that caters to diverse student needs.

Cost-Effective Solutions: Open-access OER reduces the financial burden on ITEP programmes and teacher candidates, making inclusive education resources accessible to a broader audience, especially in resource-constrained environments.

ITEP programmes equip teachers with the necessary skills and mindsets to create inclusive and equitable learning environments using open educational resources (OER).

Conclusion

OER has distinctive features that can be helpful in the development of an integrated teacher education programme to lead a more inclusive education. OER's features provide multiple scopes in the field of teacher education to enhance the teacher's skills, meet students' diverse needs, strengthen teaching and learning resources, and provide a curriculum framework. OER has a sharing and dissemination nature that promotes inclusive education. Its interdisciplinary approach can help develop an effective integrated teacher education programme that directly benefits trained graduate and postgraduate teachers in less time and with fewer resources, leading to quality education and productive work. OER has maximised the reach and assessment of the qualitative education materials. This provides an immense opportunity to

develop an effective ITEP as per the recommendation of NEP 2020 that fulfils the gap in the path of inclusive education implementation and promotes students' cultural knowledge and backgrounds. Even though all these three areas have a huge scope of interrelated research, very little research has been done on OER, ITEP, and inclusive education. Their relationship and complementary nature can bring about a huge positive change in teacher training programs.

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