

Transforming The Teacher Education Programme Through a Multidisciplinary Education Approach: A Reflection on NEP 2020

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Abstract:

The transformation of teacher education in India it is very crucial to ensuring quality education in the 21st century demands. The National Education Policy 2020, a brave vision has emerged to restructure the educational landscape focusing on an interdisciplinary, holistic education approach. The objective of the paper is to explore the role of a multidisciplinary approach in the reform of teacher education programs that's conceptualized by the National Education Policy 2020. Through a comprehensive review of literature and policy documents, this paper examines the key principles and objectives of NEP 2020 related to teacher education. It delves into the rationale behind promoting multidisciplinary approaches within teacher training programmes, highlighting the benefits of integrating diverse disciplines such as STEM, social sciences, arts, and humanities etc. Furthermore, the paper discusses the pedagogical implications of multidisciplinary education for teacher preparation, including the development of creativity, critical thinking skills, and adaptability among the teacher educators. It also explores the challenges and opportunities associated with implementing multidisciplinary approaches in teacher education institutions, considering factors such as curriculum design, faculty development, and resource allocation. It concludes with recommendations for policymakers, educational administrators, and teacher educators to leverage multidisciplinary education institutions as catalysts for innovation and excellence in teacher preparation. Through this reflection on NEP 2020, the paper contributes to the ongoing discourse on enhancing the quality and relevance of teacher education in the 21st century.

Keywords: Teacher education, Multidisciplinary approach, Transformative Pedagogy, Holistic Education, Critical Thinking.

Introduction

Teacher education is a cornerstone of educational systems worldwide, serving as the bedrock for preparing competent educators who, in turn, shape the future of generations to come. The educational system in India has long faced the challenge of reforming its teacher education to meet

the demand of rapidly changing, diverse, technologically advancement, and 21st century society. Historically the teacher education system in India has based on the rigid academic discipline, which have often unable to equip teachers with the comprehensive skills sets needed to foster innovative, inclusive and effective learning environments. The National Education Policy 2020 aims to address these gaps by promoting the multidisciplinary and holistic approach in teacher education programs. As such, the integration of multidisciplinary perspectives into teacher education programmes has emerged as a vital agenda, especially in light of the evolving demands of the 21st-century learning landscape. The National Education Policy (NEP) 2020 stands as a pivotal document that delineates the contours of educational reform in India, aiming to revitalize the country's education system across all levels (Ministry of Education, 2020). One of the key thrust areas of NEP 2020 is the promotion of multidisciplinary education institutions, envisioned as hubs of innovation and collaboration that transcend traditional disciplinary boundaries. This paradigmatic shift holds profound implications for teacher education, as it necessitates a reimagining of pedagogical approaches, curriculum frameworks, and institutional structures to foster holistic learning experiences for future educators (Srivastava & Pawar, 2021). Touching this backdrop, this research paper seeks to explore the transformative potential of integrating multidisciplinary perspectives into teacher education programmes, with a specific focus on the implications of NEP 2020. By examining the theoretical underpinnings, historical trajectories, and practical implications of this paradigm shift, the paper aims to provide insights into the opportunities and challenges inherent in reconfiguring teacher education within the context of multidisciplinary education institutions.

An overview of Teacher Education Programme in India

Teacher education in India has evolved significantly over time, influenced by historical, cultural, and policy developments. Rooted in the ancient Gurukul system, where education was personalized and value-based, the foundation of modern teacher education emerged during British colonial rule with the establishment of formal teacher training institutions. Post-independence, teacher education was institutionalized as a vital component of nation-building, with the University Education Commission (1948-49) and the Secondary Education Commission (1952-53) emphasizing its role in quality education. The establishment of the National Council for Teacher Education (NCTE) in 1995 as a statutory body marked a pivotal shift, introducing standardized norms and regulations. Currently, teacher education programs in India include pre-service, in-service, and continuous professional development, encompassing certificate, diploma, undergraduate, and postgraduate levels. The curricula emphasize pedagogy, subject content, technology integration, and the development of reflective teaching practices. In recent years, policy frameworks like the National

Education Policy (NEP) 2020 have advocated transformative reforms, focusing on multidisciplinary approaches, equity, and the integration of Indian knowledge systems. Despite these efforts, challenges such as resource disparities, quality inconsistencies, and insufficient alignment with 21st-century skills persist. Addressing these issues requires collaborative efforts among stakeholders to create a robust ecosystem for preparing competent and reflective educators (NCTE, 2021; NEP, 2020). The current teacher education program in India encompasses various levels, including pre-service and in-service training. Pre-service programs are offered at the diploma, undergraduate, and postgraduate levels, with a focus on preparing individuals for teaching roles in schools. In-service training aims to enhance the professional development of practicing teachers. As India undergoes educational reforms, the National Education Policy (NEP) 2020 plays a pivotal role in shaping the future of teacher education. The NEP emphasizes a holistic and multidisciplinary approach, integrating teacher education into the broader higher education framework and promoting flexible and innovative training methods. These reforms aim to address existing challenges and equip teachers with the skills needed to navigate the complexities of twenty-first-century education (NEP, 2020).

Understanding Multidisciplinary Education Approach

Multidisciplinary approach in teacher education blends knowledge, methods, and perspectives from the diverse fields to enhance the teaching and learning practices. Multidisciplinary approach encourages the development of well-rounded educators who are able to address the complexities of the classroom by considering multiple viewpoints. Through drawing on diverse disciplines such as psychology, sociology, philosophy and the arts, educators are encouraged to think critically and apply strategies that go beyond traditional process. This approach not only enhances problem solving skills but also allows teachers to create teaching practices that are more adaptable to the diverse needs of students in a 21st century generation. Eventually the multidisciplinary approach assist prepare teachers to foster inclusive and effective learning environments, equipping them with the skills necessary to respond to the challenges of contemporary changing education systems. Multidisciplinary approaches in education offer several benefits, including holistic learning, interdisciplinary collaborations, innovation and real world relevance. By embracing multidisciplinary approaches, institutions prepare students for diverse career pathways and equip them with the skills and knowledge needed to address complex challenges in the modern world relevance. In summary multidisciplinary education institutions play a crucial role in shaping the future of education by promoting interdisciplinary collaboration, fostering innovation, and providing holistic learning experiences for students.

Key Provisions of NEP 2020 Related to Teacher Education

The National Education Policy (NEP) 2020 introduces several key provisions aimed at transforming teacher education in India, reflecting a comprehensive approach to address the evolving needs of the education sector. The key provisions related to teacher education can be summarized as follows:

- 1. Integration of Teacher Education into Higher Education Framework:** One significant aspect of the NEP 2020 is the integration of teacher education programs into the broader higher education framework. This integration aims to elevate the status of teacher education and align it more closely with the overall educational ecosystem (Ministry of Education, 2020). By incorporating teacher education within the higher education system, the NEP seeks to promote coherence and synergy between different levels of education, fostering a more seamless transition for aspiring educators.
- 2. Developing Integrated Teacher Education Programme:** A four year multidisciplinary bachelor of education degree will become the minimum qualification for school teachers by 2030. The program integrates high-quality content, pedagogy, and practical training to ensure the better preparation of teachers. It will offer in multidisciplinary institutions to encourage cross-disciplinary knowledge.
- 3. Development of National Professional Standards for Teachers (NPST):** NPST will be developed to define the roles responsibilities and career paths of teachers. It will be serving as a benchmark for teacher education and continuous professional development.
- 4. Emphasis on Flexible and Innovative Approaches:** The NEP 2020 emphasizes the need for flexible and innovative approaches to teacher training and professional development. It advocates for the development of dynamic curricula that incorporate diverse pedagogical techniques, practical experiences, and internships to equip teachers with a comprehensive skill set.
- 5. Transformative Pedagogy:** It promotes the student centric pedagogical practices and emphasis on experimental learning, inquiry based teaching and the extreme use of technology in teaching learning process. The policy also recommended that integrating a multidisciplinary approach enables teachers to incorporate innovative teaching methods such as project-based learning, cross disciplinary research in teacher education which are more relevant in the 2^{1st} century world.

6. **Continuous professional Development:** CPD programs for teachers will be emphasized in the teacher education program. Through the CPD mentorship opportunities will be created, with senior teacher guiding and supporting new entrants.

Objective of the Study

- To explore the role of multidisciplinary education approach to transform the teacher education programme through SWOT analysis.

Methodology

The main objective of the paper is to analyze the potential and challenges of multidisciplinary approach education in teacher education programme. So for that the study has done on the basis of secondary data such as policy documents, book, journal, magazines and web resources.

Discussions

Role of Multidisciplinary Education approach to Transforming the Teacher Education Programme

A multidisciplinary approach to teacher education is need of an hour. In the Indian context, this strategy is not new. In ancient periods the Gurukul system was the best example of multidisciplinary education in India. Students who studied at these institutions gained a vast range of information in disciplines like as physics, medicine, health, yoga, meditation, history, and nearly every other type of knowledge (Sharma, 2023). In ancient period education system, the guru (Teacher) conveys his / her expertise and experience to the learners for their all- round development and as a result, they are well-equipped with a multidisciplinary approach teaching learning process. The landscape of teacher education is undergone a paradigm shift as a demand of the 21st century. Now the education systems call for educators who are versatile, innovative, and capable to addressing the need of the changing societies. On this context multidisciplinary education institutions play a crucial role in transforming teacher education by offering innovative approaches, fostering interdisciplinary collaboration, and preparing educators for the complexities of modern classrooms. This section explores the significant contributions of multidisciplinary institutions to the transformation of teacher education Programme.

1. **Enhanced Pedagogical Practices:** Multidisciplinary education institutions provide a fertile ground for exploring innovative pedagogical practices. Faculty members from diverse academic backgrounds collaborate to develop and implement interdisciplinary teaching

methods that transcend traditional disciplinary boundaries. Through collaborative projects, workshops, and seminars, educators engage in critical discussions, share best practices, and experiment with new approaches to teaching and learning. As a result, teachers trained in multidisciplinary institutions are better equipped to adopt student-centred pedagogies, integrate technology effectively, and address the diverse learning needs of their students.

2. **Integration of Technology and Practical Experiences:** Multidisciplinary institutions leverage technology to enhance teacher education programmes. Through the integration of digital tools, online resources, and virtual simulations, educators gain practical experience in using technology as a pedagogical instrument. Additionally, multidisciplinary institutions emphasize hands-on learning experiences, including internships, fieldwork, and community engagement initiatives. These practical experiences provide teachers with valuable insights into real-world educational contexts, enabling them to develop empathy, cultural competence, and problem-solving skills essential for effective teaching.
3. **Promotion of the Research and Innovation:** Multidisciplinary education institutions promote a culture of research and innovation in teacher education. Faculty members and students collaborate on interdisciplinary research projects that explore emerging trends, address pressing educational challenges, and contribute to the advancement of knowledge in the field. By fostering a research-oriented mindset, multidisciplinary institutions empower educators to critically evaluate existing practices, propose innovative solutions, and drive positive change in education.

How multidisciplinary education approach can transform the teacher education programs:

Multidisciplinary institutions have the potential to significantly transform teacher education programs in India by introducing innovative approaches and addressing the dynamic needs of the education sector. Through interdisciplinary collaboration, these institutions can offer a holistic learning experience for aspiring educators, integrating knowledge from diverse fields such as psychology, sociology, technology and pedagogy. Multidisciplinary institutions play a transformative role by fostering collaboration, incorporating diverse knowledge domains, and integrating technology into teacher education programs. These approaches not only improve the quality of teacher preparation but also make sure that teachers are capable to address the diverse and evolving desires of India's educational landscape. Here discussed some key ways through which multidisciplinary approach can transform teacher education-

Curriculum Design: Teacher education programs can offer a multidisciplinary curriculum that covers a multiple of subjects and teaching methods. This can help them to understand the interconnectedness of different disciplines in the field of education and develop a comprehensive perspective of education.

Incorporate Interdisciplinary Approach: Interdisciplinary courses into teacher education programs to promote knowledge integration across subjects. These courses can help potential teachers develop practical ways for teaching various topics in an integrated manner.

Real-world Application: provide an opportunities among teacher candidates to participate in real-world, interdisciplinary projects. This can include field experiences, internships, or projects that require them to apply their knowledge across multiple disciplines, similar to the obstacles they may face in the classroom and it will be help them to their real time classroom.

Problem-Based Learning: To incorporate some strategies or methods for problem-based learning in teacher education programme. This kind of teaching method encourages teachers to tackle the different kind of situation in teaching learning process and real-world issues, which frequently call for expertise from several fields.

Professional Development: Provide in-service teachers with continuing, multidisciplinary-focused professional development. This can include conferences, seminars, and workshops that introduce educators to cutting-edge pedagogies and promote cross-disciplinary cooperation.

Technology Integration: Use technology as an instrument to help in interdisciplinary education. Instructors must to receive training on how to use digital tools and resources that facilitate the integration of different courses and make learning exciting and participatory.

Cultural Competency: Talk about cultural competency in a multidisciplinary setting. To promote an inclusive and multicultural learning environment, teachers should be prepared to identify and value the range of viewpoints and backgrounds that students bring to the classroom.

Research Opportunities: Motivate educators to participate in multidisciplinary studies that are pertinent to the field of education. In order to contribute to the larger area of educational research, this could entail working with colleagues from other disciplines.

Challenges:

1. **Quality Assurance:** One of the significant challenges facing teacher education programs is ensuring high-quality instruction and training for aspiring educators. Quality assurance mechanisms, such as accreditation standards and program evaluations, are essential but can be resource-intensive and complex to implement effectively.
2. **Resource Constraints:** Implementing a multidisciplinary approach to teacher education institutions will face resource constraints as well as lack of funding, faculty shortages, and inadequate infrastructure. These resource limitations can obstruct the development and delivery of robust teacher education programs, impacting the quality of instruction and support services available to students.
3. **Technological Integration:** In a multidisciplinary education approach, technology offers vast opportunities for enhancing teaching and learning experiences, but its effective integration into teacher education programs is very challenging for teachers and learners. Because faculty members and students may lack the necessary technological literacy and pedagogical knowledge to effectively utilize digital tools and resources in educational contexts.
4. **Changing Educational Landscapes:** The rapidly evolving nature of education presents challenges for teacher education programs to keep pace with changing educational philosophies, policies, and practices. Educators must adapt to new methodologies, standards, and technologies to address the diverse needs of learners in the 21st century society.

Opportunities:

1. **Innovative Pedagogy:** The advancement in educational research and technological invention provide opportunities for innovation in pedagogy and curriculum design. Teacher education programs can leverage evidence-based practices, experiential learning opportunities, and interdisciplinary approaches to prepare educators for the complexities of modern classrooms.
2. **Collaborative Partnerships:** Building collaborative partnerships between teacher education institutions, K-12 schools, community organizations, and policymakers can create synergies and enhance the quality of teacher preparation. Collaborative initiatives, such as mentorship programs, professional learning communities, and school-university partnerships, provide valuable opportunities for pre-service and in-service teachers to engage in reflective practice and professional development.
3. **Diversity and Inclusion:** Embracing diversity and promoting inclusive practices are essential aspects of effective teacher education. Through the multidisciplinary approach, teacher education programmes have the opportunities to foster cultural competence, address equity

issues, and prepare educators to work effectively with diverse student populations in inclusive learning environments.

4. **Lifelong Learning:** Teacher education is a lifelong journey, and continuous professional development is critical for educators to stay alongside each other of emerging trends, research findings, and best practices in the field. Teacher education programs can support lifelong learning by offering continuous professional development opportunities, fostering a culture of inquiry and reflection, and encouraging educators to pursue advanced degrees and certifications.

Suggestions:

It is very important to introduce and established maximum number of multidisciplinary education institution for teacher education throughout the nation to providing multidisciplinary education method of teaching learning at every level of education in the country. It will be help to achieve the goal of holistic development of an individual as aim of NEP 2020. It is crucial to foster the collaboration among faculty members from various disciplines, promoting the exchange of ideas and pedagogical approaches. This collaborative environment enriches teacher education curricula, incorporating a broad spectrum of knowledge and perspectives. For instance, integrating psychology into teacher training can enhance educators' understanding of student behaviour and mental health, contributing to more effective classroom management. Through the multidisciplinary teacher education approach can leverage technology to augment teacher education programs by incorporating digital tools, online resources, and educational technologies, educators are better equipped to adapt to the digital age and impart technological literacy to future teachers. This aligns with the changing landscape of education, preparing teachers to utilize technology in their instructional practices.

Conclusion

In conclusion, NEP 2020 recommended a paradigm shift in teacher education in India through multidisciplinary education approach with focus on practical, experimental education and Vocationalization of education. This policy has emphasized on the interdisciplinary collaboration, innovation in pedagogy, and a focus on real-world challenges, these education approaches can prepare educators to navigate the complexities of modern classrooms effectively (Mishra, 2024). By fostering a culture of research and scholarship, multidisciplinary institutions contribute to the advancement of knowledge and the development of evidence-based practices in education. When teacher educators

and institutions embrace multidisciplinary approaches, they not only enrich teaching and learning experiences but also prepare students for diverse career pathways and lifelong learning. The integration of technology, promotion of diversity and inclusion, and emphasis on holistic learning experiences underscore the importance of multidisciplinary education in shaping the future of education. In the face of evolving educational paradigms and societal needs, multidisciplinary education institutions serve as catalysts for innovation, collaboration, and excellence in teacher education. Moving forward, continued investment in multidisciplinary approaches, faculty development initiatives, and collaborative partnerships will be essential to meet the evolving demands of the twenty-first-century educational landscape. The implementation of these reforms will be critical in achieving the vision of the NEP 2020, which is to provide quality education to all students in India. If the policy is implemented effectively, the new teacher education system proposed by the NEP 2020 has the potential to transform the quality of education in India and contribute to the development of a more equitable and prosperous society.

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