



MULTIDISCIPLINARY EDUCATION AND RESEARCH UNDER NEP 2020: SCOPE AND CHALLENGES

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Abstract

The National Education Policy (NEP) 2020 marks a paradigm shift in India's education system by promoting multidisciplinary and holistic learning across school and higher education. Moving away from rigid disciplinary silos, the policy envisions flexible curricula, integration of arts and sciences, and research-oriented universities that foster innovation and critical thinking. This paper examines the scope of multidisciplinary education and research under NEP 2020 and analyzes the structural, institutional, and pedagogical challenges in its implementation. Using a qualitative policy analysis approach, the study highlights how multidisciplinary education can enhance employability, creativity, and research output while also identifying barriers such as faculty preparedness, institutional restructuring, regulatory complexities, and resource constraints. The paper concludes with strategic recommendations to support effective implementation and sustainable transformation.

Keywords: NEP 2020, multidisciplinary education, higher education reform,

Introduction

The National Education Policy (NEP) 2020 represents India's first comprehensive education reform of the 21st century. One of its most transformative features is the emphasis on multidisciplinary education and research, aimed at breaking down traditional subject boundaries and promoting holistic development. The policy envisions Higher Education Institutions (HEIs) evolving into multidisciplinary universities and colleges that integrate sciences, arts, humanities, vocational studies, and professional disciplines. This shift aligns with global trends that recognize complex societal challenges—such as climate change, public health, and technological disruption—require interdisciplinary and cross-sectoral knowledge. NEP 2020 therefore

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seeks to reposition India's education system from rote and compartmentalized learning toward critical thinking, creativity, and innovation.

Objectives of the Study

This paper aims to:

1. Examine the scope and significance of multidisciplinary education under NEP 2020
2. Analyze the policy provisions for promoting multidisciplinary research
3. Identify the key challenges in implementation
4. Suggest strategies and recommendations for effective institutional transformation

Conceptual Framework of Multidisciplinary Education in NEP 2020

NEP 2020 defines multidisciplinary education as an approach that allows students to combine subjects across disciplines and encourages institutions to integrate diverse fields of study. The policy proposes:

- Establishment of Multidisciplinary Education and Research Universities (MERUs)
- Flexible undergraduate programs with multiple entry and exit options
- Integration of arts, humanities, vocational education, and STEM fields
- Holistic report cards and reduced curriculum content focusing on conceptual understanding
- Promotion of research culture through the National Research Foundation (NRF)

The framework emphasizes the development of well-rounded individuals with cognitive, ethical, social, and emotional capacities.

Scope of Multidisciplinary Education and Research Holistic Student

Development

Multidisciplinary learning promotes creativity, adaptability, and critical thinking by exposing learners to diverse knowledge systems. Students can combine physics with music, economics with data science, or literature with environmental studies, leading to broader intellectual growth. Modern job markets value problem-solving, communication, and cross-functional skills. Multidisciplinary education prepares graduates for emerging sectors such as artificial intelligence, sustainability, public policy, and design thinking.

Research Innovation

By encouraging collaboration across disciplines, NEP 2020 aims to boost research addressing real-world problems. The proposed National Research Foundation (NRF) is expected to fund interdisciplinary projects and foster a research culture in universities.

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Institutional Transformation

Colleges are encouraged to evolve into **autonomous degree-granting institutions** or merge into large multidisciplinary clusters. This restructuring is expected to improve academic quality, governance, and research capacity. Multidisciplinary institutions are better aligned with global university models, potentially improving India's standing in international rankings and research collaborations.

Challenges in Implementation

Despite its transformative vision, several obstacles may hinder the realization of multidisciplinary education. Many Indian institutions operate in rigid departmental silos with limited collaboration. Transforming them into multidisciplinary spaces requires structural and cultural change. Teachers trained in specialized disciplines may lack exposure to interdisciplinary teaching methods. Faculty development and retraining are essential but resource-intensive.

Curriculum and Assessment Reforms

Designing flexible curricula while maintaining academic depth is complex. Traditional examination systems may not effectively assess interdisciplinary learning outcomes. Multidisciplinary education demands new laboratories, collaborative spaces, digital infrastructure, and research funding. Public institutions, particularly in rural areas, may struggle with financial limitations. The transition to multidisciplinary universities involves coordination between multiple regulatory bodies. Policy alignment and institutional autonomy are necessary to avoid bureaucratic delay. Elite institutions may adapt more quickly, widening disparities between well-funded universities and smaller colleges.

Methodology

This study uses a qualitative policy analysis approach, drawing on official NEP 2020 documents, secondary literature on interdisciplinary education, and comparative global practices. The analysis focuses on conceptual interpretation and systemic evaluation rather than empirical data collection.

Discussion

Multidisciplinary education represents a systemic shift from knowledge transmission to knowledge integration. Its success depends not only on policy intent but also on institutional capacity and stakeholder engagement. International experiences show that interdisciplinary education flourishes when supported by flexible governance, strong research ecosystems, and collaborative academic cultures.

India's diversity offers fertile ground for multidisciplinary innovation, especially in areas like sustainable development, indigenous knowledge systems, digital technology, and public health. However, transformation at scale requires long-term commitment, sustained funding, and robust monitoring frameworks.

Recommendations

1. Faculty Development Programs focused on interdisciplinary pedagogy and research collaboration
2. Increased Public Investment in infrastructure and research funding
3. Curriculum Innovation Cells in universities to design flexible programs
4. Industry and Community Partnerships for applied multidisciplinary projects
5. Regulatory Simplification to grant institutions academic and administrative autonomy
6. Phased Implementation with pilot institutions serving as models for others

Conclusion

NEP 2020's emphasis on multidisciplinary education and research has the potential to transform India's higher education landscape into a globally competitive, innovation-driven ecosystem. While the scope is vast—ranging from holistic learning to research excellence—the challenges are equally significant. Successful implementation requires systemic reforms, stakeholder capacity-building, and sustained policy support. If executed effectively, multidisciplinary education can equip Indian learners to navigate complex global challenges and contribute meaningfully to national development.

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