



Promoting A Multidisciplinary Approach In View Of Nep 2020: A Thematic Prespective

Ms. Eliza Bhoi, Faculty of Education, Rama Devi Women's University, Bhubaneswar, India.

ABSTRACT

An important turning point in India's educational reform strategy is the National Education Policy (NEP) 2020, which calls for a change from inflexible, segmented academic frameworks to a flexible, multidisciplinary framework. In light of NEP 2020, this topic article critically analyses the theoretical and practical foundations of a multidisciplinary approach, placing it within both indigenous epistemologies and global educational trends. Through the integration of many knowledge streams—such as science, the humanities, the arts, and vocational disciplines—across school and higher education levels, the strategy aims to create an educational system that fosters creativity, critical thinking, and holistic growth. The study examines several important thematic strands, including (i) the philosophical underpinnings of multidisciplinary learning in liberal education models and ancient Indian knowledge systems, (ii) policy mechanisms for curricular convergence and institutional integration, (iii) issues with teacher education and pedagogical training, and (iv) how multidisciplinary approaches align with employability, innovation, and lifelong learning. It examines how NEP 2020 promotes universities to become knowledge centres that support inquiry, adaptability, and creativity, particularly through the establishment of the Academic Bank of Credits (ABC), Multidisciplinary Education and Research Universities (MERUs), and a flexible choice-based credit system. In addition to incorporating global case studies from institutions that have successfully operationalized interdisciplinary learning, the paper draws on a qualitative thematic analysis of NEP 2020 documents, position papers, and recent reforms by the National Council for Educational Research and Training (NCERT) and the University Grants Commission (UGC). The results indicate that although the policy establishes a progressive framework, systemic adjustments in curriculum design, teacher competencies, governance, and infrastructure support are necessary for successful implementation.

Keywords: *NEP-2020, Multidisciplinary, Credit based Structure*

1. INTRODUCTION

In order to support students' holistic growth, inventiveness, and flexibility, education in the twenty-first century must urgently go beyond traditional disciplinary boundaries. The Government of India introduced the National Education Policy (NEP) 2020, which aims to revolutionize the nation's educational system. Promoting a flexible and heterogeneous learning method that allows students to explore a wide range of subjects across several domains, including the arts, humanities, sciences, and vocational education, is one of its guiding principles (Ministry of Education [MoE], 2020). The idea of multidisciplinary is not new; it has its origins in the educational institutions of ancient India, particularly at the universities of Takshashila and Nalanda, where students studied a wide range of subjects from mathematics and medicine to logic and languages (Pathak, 2021). Drawing inspiration from global liberal education frameworks that emphasize the interconnectivity of knowledge systems, NEP 2020 revisits this indigenous concept (Nanda, 2021). In order to promote integrated, inquiry-driven learning, the policy sees educational institutions as dynamic ecosystems where disciplinary silos are broken down.

Given the complex global challenges—such as pandemics, climate change, technological disruption, and socio-political unrest—that call for adaptable, moral, and creative problem-solvers, the necessity for such an approach has only grown. NEP 2020 aims to develop critical thinking, communication, teamwork, and flexibility in students by prioritizing transdisciplinary learning—skills necessary for life and employment in the twenty-first century (Choudhary & Jha, 2022). Among the policy initiatives intended to operationalize this vision are the establishment of Multidisciplinary Education and Research Universities (MERUs), the introduction of flexible curriculum, and the implementation of the Academic Bank of Credits (ABC).

This paper presents a thematic analysis of how NEP 2020 articulates and promotes a multidisciplinary educational paradigm. It investigates the conceptual foundations, policy mechanisms, implementation challenges, and the potential impact of this shift on learners, educators, and institutions. By engaging with national policy documents and relevant academic literature, the paper aims to provide a critical perspective on how India can transition toward an inclusive and future-ready education system through multidisciplinary reform.

1.1. Conceptual Framework on Multidisciplinary Approach

A multidisciplinary approach is a teaching strategy that combines ideas, methods, and knowledge from several academic fields to provide students a more comprehensive and linked understanding of difficult subjects. Multidisciplinary promotes cooperation across disciplines without necessarily combining them into one, in contrast to conventional, compartmentalized educational methods where courses are taught in isolation (Jacobs, 1989). While offering viewpoints that enhance a more comprehensive educational experience, each subject maintains its unique identity.

The National Education Policy (NEP) 2020 envisions a multidisciplinary approach as the cornerstone of reforms in both higher education and schools. In order to eliminate artificial barriers between

"academic" and "vocational" or "arts" and "science" streams, the policy promotes topic choice flexibility, allowing students to study combinations like physics and music or history and computer science (Ministry of Education, 2020). NEP 2020 states that this strategy seeks to develop the critical thinking, creativity, innovation, and problem-solving abilities that are crucial for surviving in the connected world of today.

It is different from interdisciplinary and trans disciplinary approach. The interdisciplinary approach goes a step further by integrating methods, perspectives, and frameworks from different disciplines to develop a cohesive understanding of complex issues. It aims to create new knowledge by blending insights from different fields. The Trans disciplinary approach transcends traditional disciplinary boundaries altogether. It involves collaboration not only among academic disciplines but also between academia and non-academic stakeholders such as communities, industries, and policymakers. The goal is to co-create knowledge that addresses real-world, complex problems in a context-sensitive way.

2. Vision of NEP 2020 on Multidisciplinary Education: Importance in School and Higher Education and Institutional Restructuring to Promote Holistic Learning

The National Education Policy (NEP) 2020 marks a paradigm shift in India's educational philosophy, advocating for an inclusive, equitable, and holistic framework rooted in flexibility, multidisciplinary, and learner-centricity. At the heart of this vision lies the commitment to dismantling rigid academic silos and creating learning environments that foster curiosity, critical thinking, and creativity through cross-disciplinary engagement.

2.1. Multidisciplinary Learning in School Education

According to NEP 2020, a curriculum that incorporates topics, themes, and abilities from other domains will enable students to interact with information in a more meaningful and integrated way. According to the Ministry of Education (2020), a more flexible framework that enables students to select course combinations depending on their interests and aptitudes is suggested to replace the out-dated division of streams into Science, Commerce, and Humanities.

This change is exemplified by the implementation of experiential learning, arts integration, storytelling, and vocational training starting in Grade 6. NEP 2020 also suggests a lighter curriculum with a greater focus on foundational skills, higher-order thinking, and real-life applications, which is backed by diagnostic, formative, and multidimensional assessments (NCERT, 2021). Additionally, multidisciplinary pedagogies are promoted through the training and up skilling of school teachers, who are encouraged to become facilitators of cross-subject learning using collaborative, project-based methods (Nanda, 2022). This approach prepares students for more meaningful transitions into higher education and the workforce as well as deeper, lifelong engagement with learning.

2.2. Multidisciplinary and Holistic Higher Education

Every higher education institution (HEI) should become interdisciplinary by 2040, according to NEP 2020. The policy highlights the necessity for comprehensive colleges that offer instruction in the arts, sciences, social sciences, business, technology, and vocational fields all under one roof and discourages single-stream institutions. To achieve this goal, it is believed that the creation of Multidisciplinary Education and Research Universities (MERUs) throughout the nation and the improvement of already-existing institutions are essential (UGC, 2021).

A Choice-Based Credit System (CBCS) will enable students to create flexible academic courses, enabling them to minor in one subject and major in another. A student might, for instance, major in economics and minor in philosophy or music. Students will have more mobility and flexibility thanks to the Academic Bank of Credits (ABC), which will enable them to save and transfer academic credits between institutions (MoE, 2020).

The foundation of this multidisciplinary approach in higher education is liberal education, which is a defining feature of NEP 2020. It fosters the growth of civic engagement, leadership, communication, and critical thinking. Universities are urged to provide four-year undergraduate programs with several exit and re-entry points so that students can receive degrees, certificates, or diplomas based on how long they study.

2.3. Institutional Restructuring and Governance

To realize the vision of multidisciplinary and holistic learning, NEP 2020 proposes major structural reforms in institutional governance:

All HEIs will be restructured into one of three types:

1. Research-Intensive Universities (RIUs),
2. Teaching-Intensive Universities (TIUs),
3. Autonomous Degree-Granting Colleges (ADGCs).

This classification is intended to eliminate fragmentation and encourage institutional collaboration and knowledge sharing. It also allows institutions to specialize based on their context, capacity, and regional relevance.

The current disjointed regulatory framework will be replaced by the Higher Education Commission of India (HECI), which would supervise all facets of higher education. NHERC (regulatory), NAC (accreditation), HEGC (financing), and GEC (academic standards) are its four separate verticals, each of which will operate independently but together. Multidisciplinary learning, life skills, digital literacy, and ethical reasoning will all be incorporated into the revised curriculum. According to Choudhary and Jha (2022), institutions are expected to establish multidisciplinary departments and institutes, stimulate cross-departmental research and teaching, and support joint faculty positions. To assist institutions in implementing a comprehensive strategy, infrastructure support, teacher training, and capacity building

will be required. Academic autonomy will enable faculty members to create and teach interdisciplinary courses that address regional and global issues.

2.4. Holistic Development and Nation-Building

The main objective of multidisciplinary and holistic education is to develop well-rounded people who can intelligently and empathetically handle challenging social, environmental, and technical concerns. This is in line with India's constitutional goal of promoting inclusive development and democratic citizenship. NEP 2020 seeks to enable students not just to make a living but also to live fulfilling lives and actively participate in national development and international well-being by promoting academic variety, ethical reasoning, and emotional intelligence (Nanda, 2022). The development of anchored yet global citizens is further supported by the merging of Indian knowledge systems, environmental consciousness, the arts, and values. The policy's vision also strongly aligns with the United Nations Sustainable Development Goal 4 (SDG 4), which advocates for quality education and lifelong learning opportunities for all.

3. Thematic Perspective on Multidisciplinary Education in NEP 2020

The National Education Policy (NEP) 2020 envisions an educational framework that redefines learning through a multidisciplinary lens. The policy's thematic orientation integrates diverse elements—arts and sciences, skill development, curriculum flexibility, teacher preparedness, and technological facilitation—into a unified educational paradigm. These interconnected sub-themes collectively promote holistic development, preparing learners for an ever-changing world while upholding equity, excellence, and inclusivity.

3.1. Integration of Arts and Sciences

The goal of NEP 2020 is to foster a culture of inquiry, invention, and creativity by dismantling the conventional barriers that have long divided the arts from the sciences. It advances the notion that disciplines are intricately interwoven and mutually enriching rather than being in silos. These days, students are encouraged to study academic combinations like data science and literature, physics and philosophy, or mathematics and music. The critical thinking, emotional intelligence, and creative problem-solving skills that are essential for learners in the twenty-first century are fostered by this interdisciplinary confluence (Ministry of Education, 2020). The integration of arts and sciences is not merely an academic recommendation but a fundamental pillar of NEP's holistic education model. It aligns with the policy's emphasis on rootedness and global relevance, acknowledging both India's rich cultural heritage and the demands of a rapidly evolving global landscape (Nanda, 2022).

3.2. Emphasis on skill-based learning

The policy's significant emphasis on skill-based learning makes this disciplinary integration even more pertinent. Early exposure to vocational education, starting in Grade 6, is mandated by NEP 2020, with an emphasis on experiential and hands-on learning. Students are prepared for both academic success and real-world issues by integrating digital literacy, problem-solving techniques, entrepreneurship, and life skills into the curriculum (NCERT, 2021). Because skill-based learning incorporates real-world information into academic frameworks, it strengthens trans disciplinary learning. To combine theory and

practice, an environmental science student might learn GIS mapping or sustainable agriculture techniques at the same time. Therefore, skill education ensures that students be flexible, employable, and socially responsible, complementing academic breadth.

3.3. Flexibility in Curriculum and CBCS

The Academic Bank of Credits (ABC) and the Choice-Based Credit System (CBCS) are structural tools that facilitate skill embedding as well as discipline integration. By selecting from a wide range of courses across disciplines, students can create customized learning paths that blend their interests with their future professional aspirations. An economics major can take electives in psychology or ethics, whereas a science student can minor in music. Autonomy, self-directed learning, and liberal education are all embodied in this adaptable architecture (Srivastava, 2022).

Through the institutionalization of academic mobility and learner choice, curriculum flexibility enhances the sustainability of multidisciplinary education. It guarantees that every student has the chance to learn what matters to them, that no topic is subpar, and that every potential is developed. In keeping with NEP's learner-centric philosophy, flexibility is not only pedagogical.

3.4. Teacher Preparedness for Multidisciplinary Pedagogy

However, the preparedness of educators is a prerequisite for the successful execution of this objective. When it comes to implementing trans disciplinary policy in the classroom, teachers are the crucial link. To enable teachers to support interdisciplinary learning, create project-based curriculum, and evaluate students in ways other than rote memorization, NEP 2020 requires extensive reforms in teacher education and professional development (MoE, 2020). Cultural sensitivity, educational innovation, and exposure to a variety of fields are all components of multidisciplinary teacher preparation programs.

3.5. Role of Technology in Facilitating Integration

The thoughtful application of educational technology facilitates the smooth integration of these themes. Access to a variety of learning resources across disciplines is made easier by digital platforms like SWAYAM, DIKSHA, and virtual labs. Personalized, interdisciplinary learning experiences that cut across academic and geographic barriers are provided via learning management systems and AI-powered tools (UGC, 2021). Technology promotes trans disciplinary education by acting as a multiplier. It gives students virtual access to scientific simulations, language classes, arts-based programs, and occupational skills—enabling them to explore, work together, and create across disciplines. A key organization to direct the incorporation of digital infrastructure in this transition is the National Educational Technology Forum (NETF) (MoE, 2020)

4. Opportunities and Way Forward on Multidisciplinary Approach

By giving students the opportunity to study a variety of topics outside of strict streams, multidisciplinary education creates additional avenues for holistic growth. By combining the arts, sciences, and vocational skills, it improves creativity, critical thinking, and problem-solving abilities. This method encourages lifelong learning, improved employability, and flexibility in the face of real-world difficulties.

Additionally, it fosters inclusion by providing flexible learning options that cater to a wide range of learners, developing well-rounded people who are prepared for both professional and personal development in the twenty-first century.

4.1. Institutional Best Practices

Ashoka University (Haryana): A leading example of multidisciplinary higher education, offering students the freedom to design major-minor combinations across the sciences, arts, and social sciences.

IIT Hyderabad: Integrates liberal arts and design thinking with core engineering curriculum, encouraging interdisciplinary innovation.

Delhi University (under LOCF/CBCS): Has introduced interdisciplinary electives and skill enhancement courses across disciplines, reflecting flexibility and learner autonomy.

Mahatma Gandhi International Hindi University, Wardha: Offers interdepartmental collaboration in teacher education, digital literacy, and cultural studies, promoting the holistic vision of NEP.

Kendriya Vidyalayas & Navodaya Vidyalayas: At the school level, these institutions have successfully initiated art-integrated, project-based, and ICT-based learning under the NEP framework.

4.2. Recommendations for Policy and Practice

4.2.1. Curriculum Design:

In terms of curriculum design, there is a pressing need to develop integrated curricula at both school and higher education levels that seamlessly combine theory, practice, and multiple disciplines. Institutions, in collaboration with NCERT and state education boards, should embed skill-based and value-based modules within traditional subjects to promote holistic development.

4.2.2. Teacher Training and Professional Development:

Professional growth and teacher training are equally important. To provide teachers with interdisciplinary pedagogies including inquiry-driven tactics, project-based learning, and experiential learning, regular capacity-building initiatives must be started. In order to promote an innovative and integrated culture, faculty members should be encouraged to work together across disciplines through co-teaching and joint curriculum preparation.

4.2.3. Assessment Reforms

Alongside these educational changes, assessment reforms ought to be implemented. Formative assessments, performance activities, and portfolio evaluations must replace traditional rote-based testing approaches in order to capture the variety of learning outcomes linked to a multidisciplinary approach. Students' critical thinking, inventiveness, and application abilities will be more accurately reflected in these tests. Technology Integration Multidisciplinary education is greatly aided by the integration of technology. Particularly in environments with limited resources, the growth of MOOCs, virtual labs, and open educational resources (OERs) can facilitate blended and cross-disciplinary learning. Additionally, students can personalize their educational paths with the use of AI-driven personalized learning technologies, which will increase the accessibility and relevance of diverse course

4.2.4. Institutional Restructuring

Restructuring institutions is also essential. The UGC's recommendations for switching from single-stream to interdisciplinary architectures should be followed by higher education institutions. The Academic Bank of Credits (ABC) framework facilitates flexible and interconnected learning pathways by fostering credit transfers, academic mobility, and common infrastructure.

4.2.5. Role of the Stakeholder

All stakeholders must actively participate in order for this goal to be realized. In addition to participating in on-going professional development, teachers must serve as facilitators, connecting content across topics and using creative, learner-centric approaches. Particularly in underprivileged communities, policymakers are essential in creating legislative frameworks that are helpful and in providing financial and infrastructure resources. By investigating a variety of topics, taking part in internships, and working on projects that advance their practical and ethical skills, students can take charge of their education. Parents are also important partners because they help their children develop into well-rounded, multidisciplinary learners by promoting curiosity, supporting their academic decisions, and creating a collaborative atmosphere at home.

5. Challenge in implementing multidisciplinary approach

While the National Education Policy (NEP) 2020 lays a strong foundation for transforming the Indian education system through a multidisciplinary approach, the path to implementation is fraught with challenges. These challenges are not merely structural but also cultural, pedagogical, and operational. Among the most significant hurdles are institutional resistance, curriculum and assessment rigidity, and the need for capacity building of educators.

5.1. Institutional Resistance to Structural Change

One of the primary challenges is the resistance from established institutions to restructure themselves into multidisciplinary environments. In the past, a large number of Indian higher education institutions (HEIs) have functioned independently, providing only a few programs, such as engineering, law, or business. These institutions frequently lack the infrastructure, faculty diversity, and governance systems necessary to grow into interdisciplinary fields. Less than 20% of Indian HEIs now meet the criteria for being interdisciplinary institutions, according to the UGC (2021), indicating a pervasive structural restriction. In many cases, institutional inertia stems from apprehensions about funding, coordination, and perceived dilution of disciplinary rigor. For instance, specialized institutions like IITs and NITs have been slow to integrate humanities or design courses into their technical curricula despite NEP's encouragement. Moreover, administrative and accreditation frameworks continue to favor traditional single-stream institutions, further discouraging experimentation (Choudhary & Jha, 2022).

5.2. Curriculum and Assessment Rigidity

The inflexibility of current curricula and evaluation methods is another significant obstacle. The existing curriculum is still very prescriptive and exam-focused at many levels, despite NEP 2020's calls for flexible and choice-based learning. Universities and boards frequently require set subject combinations

with minimal opportunity for interdisciplinary research. This inflexibility hampers cross-disciplinary learning opportunities and prevents pupils from pursuing their varied interests. Additionally, the majority of assessment techniques are based on standardized written tests that value memorization over originality or application. The adoption of multidisciplinary pedagogies is hampered by the lack of formative feedback systems, portfolio-based evaluations, and assessments for interdisciplinary projects. The worry of weakening academic standards is also connected to this evaluation rigidity, particularly among traditional educators and lawmakers who are used to old grading schemes.

5.3. Capacity Building of Educators

The lack of teacher preparation for trans disciplinary teaching is arguably the biggest obstacle. Teachers with specialized training in a single subject frequently feel unprepared to teach or work with students from several fields. Although NEP 2020 places a strong emphasis on project-based and experiential learning, many teachers lack the necessary skills to plan and assess these kinds of activities. The gap is further widened by the lack of ongoing professional development courses emphasizing interdisciplinary teaching.

Less than 30% of school teachers had been trained in incorporating art or vocational skills into science or language classrooms, according to an NCERT (2021) research. In higher education, where faculty members are rarely supported or encouraged to co-teach or create interdisciplinary curricula, this disparity is even more pronounced. For instance, an institution that houses both engineering and the liberal arts

Cultural Mind sets and Perceptions. It is belief that multidisciplinary education is less demanding or career-focused than more conventional courses like engineering, medicine, or law is a fundamental and frequently disregarded obstacle. Because they are inexperienced with liberal education methods and worry about their employability, parents and even students may oppose multidisciplinary possibilities. These mind sets will continue to be a problem until awareness is raised and success stories are widely disseminated.

6. Way Forward for Multidisciplinary Approach

To effectively implement the multidisciplinary vision of NEP 2020, the following future-oriented steps are essential:

1. Establish multidisciplinary hubs or centres of excellence within institutions to model integrated teaching and research practices.
2. Implement phased curriculum reforms with clear timelines, supported by teacher training in interdisciplinary and experiential pedagogies.
3. Encourage global and national collaborations to share best practices, develop joint programs, and promote innovation.
4. Strengthen digital tools, AI, and open educational resources to create flexible, inclusive, and student-driven learning environments.
5. Promote structured career counselling and parental awareness to build positive mind sets around liberal and holistic education.

6. Support continuous research and policy monitoring to evaluate the impact of multidisciplinary education and guide long-term strategies.

A coordinated effort among educators, institutions, policymakers, parents, and learners will be essential to ensure that multidisciplinary education becomes not only a policy mandate but a lived reality across India's educational ecosystem.

7. CONCLUSION

The National Education Policy (NEP) 2020's transformative potential to reimagine India's educational environment through the lens of multidisciplinary education is reaffirmed in this charter. This article illustrates how NEP 2020 envisions a comprehensive, inclusive, and future-ready model of learning by drawing on thematic perspectives like the integration of arts and sciences, the emphasis on skill-based learning, the flexibility of the curriculum through CBCS, teacher preparation, and the strategic role of technology. The challenges necessitate a proactive and collaborative response from all stakeholders across the educational spectrum.

8. REFERENCES

1. Choudhary, R., & Jha, P. (2022). Multidisciplinary education in NEP 2020: Prospects and challenges. *Journal of Educational Policy and Research*, 14(2), 45–56.
2. Jacobs, H. H. (1989). *Interdisciplinary curriculum: Design and implementation*. ASCD.
3. Ministry of Education. (2020). *National Education Policy 2020*. Government of India. <https://www.education.gov.in>
4. Nanda, M. (2021). Reimagining liberal education in India: Implications of NEP 2020. *International Journal of Contemporary Education*, 4(1), 1–10.
5. Nanda, M. (2022). Holistic and multidisciplinary education: A review of NEP 2020. *International Journal of Contemporary Educational Research*, 6(1), 21–28.
6. NCERT. (2021). *Position Paper on Curriculum and Pedagogy: Holistic and Multidisciplinary Learning*. National Council of Educational Research and Training.
7. Pathak, R. (2021). Revisiting ancient Indian knowledge systems: A multidisciplinary perspective. *Indian Journal of Educational Thought*, 29(3), 23–34.
8. Srivastava, V. (2022). Choice-based credit system and learner autonomy under NEP 2020. *Indian Journal of Higher Education*, 8(1), 32–39.
9. University Grants Commission (UGC). (2021). *Guidelines for Transforming Higher Education Institutions into Multidisciplinary Institutions*. <https://www.ugc.ac.in>