



INTEGRATING INDIGENOUS KNOWLEDGE ACROSS SUBJECTS: UNDERSTANDING MULTIDISCIPLINARY LEARNING IN THE LIGHT OF NEP 2020

Zorinpuia Sailo¹, Prof. Lynda Zohmingliani²

¹Research Scholar, Department of Education, Mizoram University

²Department of Education, Mizoram University

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ABSTRACT

The National Education Policy (NEP) 2020 marks a major shift in India's education system, moving from rigid structure to a flexible, holistic, and multidisciplinary model of learning. This paper examines the philosophy, historical roots, and practical implementation of multidisciplinary education as envisioned in NEP 2020. Drawing on ancient Indian learning centers as early models of integrated education, the paper traces how NEP 2020 dissolves rigid boundaries between Science, Commerce, and Arts, allowing students to combine subjects such as Physics with History or Commerce with Arts, etc. Particular attention is given to the integration of physical education, arts and crafts, and vocational training, especially when rooted in indigenous knowledge systems such as traditional games, handloom weaving, folk music, and local craftsmanship as tools for fostering creativity, cultural awareness, and practical competence alongside academic learning

KEYWORDS: NEP 2020, Multidisciplinary Learning, Holistic and Vocational Education.

INTRODUCTION

Over the past years, India has relied on the National Policy on Education 1986, where the Indian school education system was largely guided by the principles of the National Policy on Education (1986), following the 10+2 model (10 years of general education followed by 2 years of higher secondary education with stream-based specialization) in the school curriculum. After a long gap of 34 years, the introduction of the National Education Policy (NEP) 2020 marks a significant paradigm shift in India's educational framework. The policy redefines the purpose of education, seeing it not just as learning facts, but as encouraging curiosity, creativity, critical thinking, and a sense of social responsibility, while connecting learning to personal growth and the development of the nation. According to Swarup (2025), the NEP seeks to transform learning from a rigid, subject-based system into one that fosters integration and contextual understanding.

National Education Policy 2020 turned our education into a flexible, holistic, and multidisciplinary way of learning. Multidisciplinary approach is a process through which multiple disciplines are combined for learning purposes which involves using knowledge from two or more fields without ignoring the view of each discipline. In simple terms, multidisciplinary let students learn about different subjects focusing on a central theme or problem. The multidisciplinary approach in education combines knowledge from multiple fields to enhance students' learning experience. Linking together different fields like science, art, humanities, engineering, and others allows students to learn about a topic in a more holistic manner by encouraging critical thinking and connections between the subjects. (Octoproctor, 2025). As mentioned by the Ministry of Education 2020, "The National Education Policy aims to facilitate a multidisciplinary approach to learning by bringing together arts, humanities, and sciences".

Multidisciplinary approaches bring together people from different fields who work separately on different parts of the same issue (Harisha, 2023). It is an integrated way of learning that combines ideas, methods, and perspectives from different academic fields to examine topics, solve problems, and explore connections. Unlike the traditional siloed model, where subjects are taught separately, multidisciplinary learning blends diverse areas like sciences, humanities, arts, and vocational studies into a unified educational experience. (NuRe Campus, 2025). Bhushan (2021) states that multidisciplinary and interdisciplinary frameworks not only enhance problem-solving and critical thinking but also foster the creation of new disciplines, as seen in fields like environmental studies and management.

This paper explores the importance of multidisciplinary learning as envisioned in NEP 2020, its historical and philosophical foundations, and its implementation in modern classrooms. It highlights how integrating physical education, arts, vocational training, and indigenous knowledge systems within academic structures strengthens creativity and cultural awareness and bridges the gap between knowledge and practice, empowering students to become holistic learners.

REVIEW OF RELATED LITERATURE

The National Education Policy (NEP) 2020 represents a significant transformation in India's education system, emphasizing a multidisciplinary approach at both school and higher education.

Shinde (2021) examined the policy and found that the NEP 2020 aims to break traditional subject boundaries by offering flexible curricula, allowing students to integrate areas such as arts, sciences, and vocational skills. The success of these reforms depends on addressing challenges such as teacher



training, infrastructure development, and the establishment of effective accreditation.

Kumar (2022) explored how NEP 2020 integrates multidisciplinary learning to prepare students with 21st-century skills, emphasizing its role in fostering critical thinking, creativity, and problem-solving abilities. The study highlights that the policy encourages flexibility in curriculum design, allowing learners to move across disciplines and develop both depth and breadth of knowledge. This aligns with the broader vision of NEP 2020, which emphasizes integrating the arts, sciences, vocational training, and professional studies to produce well-rounded graduates.

Priyadarshini and Dave (2021) examined the role of Open and Distance Learning (ODL) institutions in realizing the vision of holistic and multidisciplinary education proposed in NEP 2020 and argued that multidisciplinary education extends beyond disciplinary knowledge by promoting critical thinking, creativity, problem-solving, communication, adaptability, and other twenty-first-century competencies essential for holistic development. The flexibility and learner-centred nature of ODL institutions make them well-suited to implementing the multidisciplinary framework envisioned in the policy. The study recommended curriculum redesign, expansion of multidisciplinary programmes, integration of emerging fields of study, increased use of technology, and promotion of interdisciplinary research to strengthen higher education.

Shukla et al. (2022) also emphasized that this approach not only enhances employability but also fosters adaptability, collaboration, and lifelong learning skills essential in a rapidly changing global economy.

From the above literature review, studies confirm that the multidisciplinary framework of the National Education Policy (NEP) 2020 aims not only to modernize the Indian education system but also to promote the holistic development of learners.

Holistic and Multidisciplinary Learning in NEP 2020

The NEP 2020 highlights the existing divide between curricular and co-curricular activities but aims to remove these boundaries. Under the new system, there will be no strict separation between curricular, co-curricular, or extracurricular activities, nor between subjects such as arts, humanities, and sciences, or even between vocational and academic streams. To enrich science, humanities, and mathematics, physical education, arts, crafts, and vocational skills are included in the curriculum with careful attention to what is interesting and suitable for students at different ages.

The concept of multidisciplinary approaches in Indian higher education is not new; rather, it has deep historical roots. When we look back at ancient centers of learning such as Nalanda and Takshashila, these institutions were remarkable for their integration of diverse fields of knowledge, where students could engage with arts, sciences, vocational training, and professional studies, all within a single environment. This approach therefore reflected a holistic vision of education, emphasizing the development of intellectual, ethical, and practical skills rather than confining learners to narrow disciplinary boundaries. Sing & Sing (2015) stated that holistic approaches nurture creativity, cultural values, and all-round development. It focuses on educating students beyond the confines of the traditional classroom, expanding the idea of a

child-centred approach into a more comprehensive and transformative educational program.

Multidisciplinary learning allows students to choose subjects based on genuine interest rather than rigid stream requirements, making education more flexible and far less troublesome. At its core, this approach is about building meaningful connections across disciplines, helping students see knowledge as an interconnected whole rather than a set of isolated compartments.

As students can choose subjects of their own preference, the rigid barriers between Science, Commerce, and Arts no longer exist. It opens doors for students to draw insights from multiple perspectives and have the freedom to choose and combine subjects across streams- such as Physics with History, Political Science with Biology, or Commerce with Fine Arts. Integrating science with arts and commerce offers many advantages. Scientific knowledge strengthens analytical thinking, logical reasoning, and problem-solving skills, which can help students tackle different entrance tests. Similarly, a commerce student who studies Psychology or Political Science can gain a deeper understanding of consumer behaviour and improve leadership and communication skills. This combination helps them connect business knowledge with human and social understanding, making their learning more practical and meaningful. Arts and humanities play an important role in enriching science and commerce education. A science student who studies sociology can better understand how technology and scientific discoveries affect people, communities, and society as a whole. It helps them see the social and moral sides of science and how new inventions change the way people live, work, and interact. This flexibility encourages multidisciplinary learning, helping students build a broader and more connected understanding of knowledge beyond their chosen field of study. These skills are essential in today's workplaces and help create professionals who are intelligent, compassionate, and socially aware. This blend of learning not only widens students' perspectives but also nurtures creativity and innovation.

The National Education Policy 2020 goes beyond just connecting different subjects; its true aim is to transform the entire education system and prepare students for the demands of the 21st century. By removing the rigid divisions between Science, Commerce, and Arts, the policy encourages a learning environment where knowledge is interconnected, practical, and relevant to real life. Students gain the freedom to explore their interests, think creatively, and develop knowledge of different disciplines.

Physical education, arts and crafts, and vocational skills

By blending different disciplines, we can integrate physical education, arts and crafts, and vocational skills to make learning more holistic. Students who love sports, arts, and vocational skills will have time to develop their skills and enhance their creativity to a great extent. By incorporating physical education, arts and crafts, and vocational skills into the curriculum, we can also integrate indigenous knowledge in traditional sports, arts, and locally rooted vocational skills, creating a more holistic and culturally connected learning experience that nurtures not just the intellect but also the body, heart, and hands, encouraging creativity, physical well-being, and practical competence. More importantly, when these



domains draw from indigenous knowledge systems and local cultural practices, education becomes more inclusive, meaningful, and connected to the lived realities of learners.

According to SHAPE America (2013), Physical Education (PE) is an essential part of holistic education that aims to build students' physical abilities, understanding of movement, and awareness of safety, while also promoting their overall health and well-being. In physical education and sports, schools can include traditional games or indigenous games alongside modern sports. Integrating indigenous games into education helps preserve and revive traditional knowledge systems that have been an integral part of community life for generations. By thoughtfully incorporating indigenous and traditional games into the curriculum alongside modern sports, educators can make physical education a vibrant and culturally inclusive experience for children, connecting them to their culture and respecting diversity (Chamberlain, 2017). These activities not only promote physical fitness but also encourage teamwork and discipline. Incorporating indigenous games in sports and games makes students aware of their historical and cultural roots.

When art is included in formal learning, it makes education more creative, enjoyable, and meaningful. Schools can incorporate indigenous and traditional art forms, such as handloom weaving, pottery, bamboo work, and even organize workshops where students can learn painting from local artisans. Through traditional crafts, students can explore how local materials and natural resources are used wisely and sustainably. Sydora et al. (2023) stated that Indigenous crafting strengthens cultural connectedness and wellness for both learners and elder teachers.

Folk music and dance can also be included in lessons to help students feel more connected to their community. This approach helps preserve cultural heritage and allows traditional practices to be passed down to younger generations. According to Ford and Scissors (2023), folk music and dance, as classroom activities, are lively means that promote the feeling of belonging and community among students. These art forms are very effective in developing community and social ties. The shared experience of music and movement unites students, creating a positive and cohesive group environment.

Vocational education becomes richer and more meaningful when rooted in indigenous practices. Skills like handloom weaving, bamboo work, coir craft, or terracotta making can be integrated into the curriculum as forms of applied learning that link culture, sustainability, and livelihood. These activities allow students to gain practical experience alongside academic learning, as they not only help students develop technical proficiency and problem-solving abilities but also instil a sense of responsibility, creativity, and self-reliance in the future. Students who find academic subjects challenging can cultivate vocational skills that may serve as valuable means of employment and self-reliance in the future. Moreover, integrating local and traditional vocational practices makes vocational education more culturally relevant and community-oriented as it connects learning directly with the lived experiences, traditions, and values of local communities.

By weaving together physical education, arts and crafts, and vocational training, schools can nurture well-rounded individuals who are not only academically competent but also culturally aware, creative, and socially responsible. In

Mizoram, the MHIP has taken initiatives to keep the indigenous knowledge alive, where in some schools, "Puan bih" and "Buh thlei/ buh thap" have been taught to students. This practice and experience keep traditions alive and ensure that education goes beyond textbooks, preparing students for life while keeping them rooted in their traditions and communities. When physical education, arts, and vocational learning are woven together with the threads of local heritage, schools become spaces where creativity, compassion, and cultural confidence flourish. This approach ensures that education is not just about preparing for careers, but also about nurturing identity, respecting ancestral wisdom, and building a more inclusive and sustainable world for all.

Indigenous Stories and Oral Traditions in the Curriculum

Beyond physical education, arts and vocational education, indigenous stories, folklore, myths, legends, and oral traditions can also become treasured components of multidisciplinary learning. The NEP 2020 encourages the integration of Indian Knowledge Systems (IKS) and culturally relevant content into education, making local narratives important resources for teaching language, history, environmental studies, ethics, and social sciences. In the context of Mizoram, indigenous stories such as Liandova te unau, Lianchhiari leh Chawngfianga, Kungawrhi, and Chemtatrawta, and many more folktales can be incorporated into textbooks and classroom activities to promote values such as perseverance, courage, wisdom, empathy, leadership, and cultural identity. These narratives provide culturally relevant learning experiences while preserving Mizo oral traditions and strengthening students' understanding of their heritage. These narratives can be incorporated into textbooks, supplementary readers, classroom discussions, storytelling sessions, and project-based learning activities. Such integration will not only strengthen literacy and communication skills but also nurture critical thinking, creativity, moral reasoning, and, most importantly, cultural awareness while ensuring that indigenous knowledge is preserved and transmitted to future generations.

Furthermore, the multidisciplinary framework of NEP 2020 allows students from Science and Commerce streams to study subjects from Arts. This flexibility creates an excellent opportunity to integrate Indigenous Knowledge Systems (IKS) across subjects. When Indigenous stories, folklore, traditional knowledge, local history, and cultural practices are embedded in multidisciplinary courses, learning becomes not only globally relevant but also deeply rooted in the local context. Students from all academic streams, whether in Science or Commerce, gain exposure to Indigenous knowledge through multidisciplinary courses by taking Arts, enabling them to appreciate, preserve, and promote cultural heritage and to connect classroom learning with the lived experiences of local communities. In this way, education becomes more meaningful, contextual, and inclusive.

DISCUSSION

1. Infrastructure and Resource Allocation: Schools, particularly those in rural and remote areas of Mizoram, should receive adequate financial support to establish sports facilities, art and craft studios, vocational equipment, and spaces for experiential learning.



2. Community and Artisan Partnerships: Schools should formally collaborate more with local artisans, folk musicians, and indigenous knowledge holders to teach vocational and cultural skills, ensuring authenticity and continuity of traditional practices.
3. Integrating Indigenous Sports and Performing Arts: Alongside modern sports, schools should promote indigenous Mizo games, folk dances (*Cheraw, Khuallam, Chheihlam, Sarlamkai, etc.*), folk songs, and traditional musical instruments through annual sports, competitions, and co-curricular activities. This will strengthen cultural identity while promoting physical and emotional well-being.

CONCLUSION

The NEP 2020 promotes a holistic and multidisciplinary approach by integrating academic learning with physical education, arts, crafts, and vocational education. When these areas are linked with indigenous knowledge and local cultural practices, education becomes more relevant, practical, and meaningful. In the context of Mizoram, incorporating traditional games, handloom weaving, bamboo craftsmanship, folk music, and other indigenous practices can strengthen students' cultural identity while developing creativity, critical thinking, and practical skills. However, achieving this vision requires adequate teacher preparation, improved infrastructure, community participation, and context-specific curriculum implementation.

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