

Multidisciplinary Approach in Higher Education: An Overview

Zorinpuia Sailo*
Lynda Zohmingliani**

Abstract

The National Education Policy (NEP) 2020 marks a transformative shift in India's educational landscape advocating for a multidisciplinary and holistic approach into higher education. By exploring a range of subjects, students can enhance their ability to think critically, innovatively and adapt effectively. Multidisciplinary approach has made several changes into the curriculum and this shift in curriculum equips students to explore and understand diverse fields such as vocational education, value education and language skills aiming to develop critical thinking, creativity and holistic understanding. It shifts from rote learning and rigid subject boundaries to promoting a multidisciplinary approach where students can explore diverse fields and disciplines such as arts, sciences and vocational skills. This paper explores the impact of holistic learning through multidisciplinary education in undergraduate colleges and highlights how it is being put into practice in Mizoram and the changes happening in colleges and the difficulties faced while using this new method in higher education in India.

Keywords: *National Education Policy 2020, multidisciplinary, holistic learning, higher education.*

Introduction

A groundbreaking reform in the Indian education system where the National Education Policy 2020 was introduced which reshapes the structure of curriculum to improve the quality of the future Indian education. This policy placed importance on holistic and multidisciplinary learning. Acknowledging the constraints in education,

*Zorinpuia Sailo: Research Scholar, Department of Education, Mizoram University;
Ph – 8256991659, email – zorinpuiasailo@gmail.com

**Prof. Lynda Zohmingliani: Faculty, Department of Education, Mizoram University;
Ph – 9436145408, email - lynda.zohmingliani@gmail.com

the policy advocates a flexible, interdisciplinary model that empowers students to engage with subjects covering science, arts, commerce, vocational studies etc. By breaking down traditional boundaries between fields; the policy promotes innovation which helps students build their analytical thinking skills and most importantly gives importance to vocational education where practical learning happens. This will prepare individuals to be skilled and useful in the future.

Introducing multidisciplinary programs in higher education; colleges and universities are encouraged to break free from traditional academic boundaries. By offering multidisciplinary courses, students can blend their passions like pairing physics with music or economics with environmental studies which resulted into meaningful learning experiences. Multidisciplinary learning highlights learning of various topics from diverse disciplines (Park & Son, 2010).

Multidisciplinary learning prepares students for the real world where problems are rarely limited to a single field. By learning to approach issues from different angles, students build adaptability. This way, education becomes more relevant, practical, and connected to the challenges of modern life.

Why Multidisciplinary Approach in Higher Education?

India has embraced holistic and multidisciplinary learning since ancient times as seen in ancient centers of education like Takshashila and Nalanda. These institutions reflect a deep understanding of how different fields of knowledge like science, mathematics, vocational training or soft skills are interconnected. Reviving this inclusive and well-rounded model is not just about honouring the past; it is about preparing students for the complex, dynamic world in the 21st century. (NEP 2020, 11.1)

As mentioned earlier, colleges and universities are being encouraged to move beyond traditional subject limits by offering multidisciplinary programs which let students combine different interests creating richer and more meaningful learning experiences. When students mix subjects of their interest, they become more engaged in their studies. It allows them to see connections between different fields and use their knowledge in creative ways. For example, someone studying both technology and design can develop innovative solutions that are not only functional but also visually appealing.

The main aim of this approach is not just about boosting job prospects; it is about shaping curiosity, creativity and thoughtful individuals. It strives to make learning relevant and meaningful to students recognizing that each and every individual is unique and learns best when their interests, strengths and needs are addressed.

Multidisciplinary Approach in Colleges of Mizoram

In Mizoram, multidisciplinary approach has been integrated into the curriculum from 2023 and this have made several changes into the syllabus and in the teaching learning process. For postgraduate students, 170 multidisciplinary courses have been introduced giving them the opportunity to gain broad knowledge across different subjects. However, in undergraduate courses; major, minor, multidisciplinary, ability/skill enhancement course and value education are compulsory papers to be taken up by a student. Disciplinary major and interdisciplinary major courses are sets of core subjects where students can choose from both within their own field of study and from other disciplines. Each department is required to offer at least one disciplinary major course every semester. Disciplinary minor and interdisciplinary minor courses are collections of elective subjects where students can select their choice based on their interests. These minor courses are offered by different departments in each semester depending on the department's capacity and resources (Guidelines for Implementation of NEP 2020: Multiple Entry and Exit in Academic Programmes offered in Mizoram University, 2021). Besides these major and minor courses, multidisciplinary courses and two other courses have been added up into the syllabus of undergraduate. To get a brief detail on the course structure and to highlight the courses offered in science, arts and commerce; models have been taken from Philosophy (Arts stream) and Botany (Science stream) syllabus as shown in the table.

Semester	Course Code	Course Name	Credits
I	BOT100 (Major)	Phycology & Mycology	4
	BOT101 (Minor)	Economic Botany	4
		[Minor course from other discipline]	4
	BOT110 (MDC)	Plants & Environment	3
	ENG/MIZ/ HIN150	AEC: Language and Communication Skill	3
	VAC100	Value Added Course (Universal Human Values)	2
			20

(Course structure of Philosophy & Botany)

The table above outlines the undergraduate syllabus designed in accordance with the NEP 2020 for colleges affiliated with Mizoram University showcasing a wide range of subject choices. In first semester, an Ability Enhancement Course have been included focusing on language and communication skills. Based on the resources available at each college, students were offered English, Mizo or Hindi. Language

and communication skills play a crucial role in the success of multidisciplinary learning where students undertaking this course have better insights into effective communication and express their ideas clearly. Incorporating language and communication into the curriculum is essential for developing well-rounded students. It enhances their ability to articulate ideas effectively and boosts their confidence while engaging with others whether in academic or everyday life. When students can communicate effectively, they are better prepared to understand complex topics.

Semester	Course Category	Course Code	Course Name	Credits
I	Major 1	PHL100 Major 1	Epistemology and Metaphysics	4
	Major 2/ Minor	PHL101 Major 2/ Minor	Economic Botany	4
			One Minor course from other streams/ subjects	4
	Multidisciplinary	PHL110 (MDC)	MDC: Introduction to Mizo Language	3
	Ability Enhancement Course	AEC	ENG150: Communication Skill MIZ150: Introduction to Mizo Language HIN150: Devanagaree Lipi	3
	Value Added Course	VAC100	Value Added Course (Universal Human Values)	2
				20

The policy also places strong emphasis on value-based education as a core component of holistic learning nurturing not just academic excellence but also the moral and ethical development of students. Value Added Courses (VAC) have also been incorporated into the curriculum allowing students to engage in the process of valuing others and supporting individuals while also encouraging self-investigation and self-exploration. The integration of value education will help students gain a deeper understanding of their true nature and fosters a sense of inner harmony.

Significance of Multidisciplinary Approach

A significant impact on the National Education Policy (NEP) 2020 is that the policy emphasizes vocational education, skill development and multidisciplinary learning which enhance students critical thinking, creativity and problem-solving. It ensures that all students have access to high-quality learning experiences. (Mallik, 2023)

Multidisciplinary curriculum enables teachers to experiment with creative teaching strategies, incorporate new technologies and work alongside peers from various academic disciplines. (Upadhyay, 2024)

The National Education Policy 2020 brings a lasting and positive transformation into India's higher educational system. The policy stresses the need for society to evolve by integrating new skill sets. Promoting a multidisciplinary and holistic approach encourages students to think critically and make connections across different fields, thereby driving research and innovation. The flexible curriculum structure offers students a range of challenges and opportunities, supporting their academic and professional development. (Shanmugapriya and Pavithra, 2024)

The significance in implementing multidisciplinary approach is that the flexible curriculum gives students a variety of subject options to choose and emphasis is laid on vocational education and skill development which enhance students' creativity. It enables teachers to incorporate creative teaching strategies and collaborate with teachers from various academic disciplines. Besides, students drive their interest into research and innovation.

Challenges in implementing multidisciplinary approach

The policy proposes that by 2035, every district shall have at least one large multidisciplinary Higher Education Institution (HEI) located within or nearby. This means that all higher education institutions will transition into multidisciplinary institutions, each with a minimum enrolment of 3,000 students.

To double the Gross Enrolment Ratio in Higher Education by 2035, India would need to establish new universities frequently for the next 10 years. Consistently achieving this pace is undoubtedly a significant and demanding challenge. (Chhablani, 2024)

Financial support for higher education from both the government and society is insufficient and steadily declining. Many colleges set up in rural areas struggle to remain viable, face low enrolment and suffer from very poor infrastructure and facilities which are usually run by just a few teachers. (Hossain& Mondal, 2019)

Singh (2023) aimed to conduct a study to gather insights into the perceived challenges of using multidisciplinary approaches and the obstacles to interdisciplinary collaboration. The study also sought to explore the experiences and perspectives of a selected group of faculty members and administrators. He then conducted a mixed-method study involving faculty members and administrators from various disciplines across higher educational institutions. The research findings highlight several challenges associated with the implementation of multidisciplinary approach in higher education which are:

- i. Strict departmental rules and limited resources make it difficult for different departments to work together.
- ii. Teachers find it difficult to connect ideas from different subjects and create a well-organized program.
- iii. Students sometimes get confused by too many course choices and find it hard to understand complex topics from multiple subjects, which can lead to frustration.
- iv. There are no clear systems in place to support or reward teachers for working across different disciplines, which adds to their challenges.

A study conducted by Baidya (2025) also revealed that students find it challenging to comprehend and adjust to the updated curriculum and credit system. The institutional infrastructure, faculty support, learning environment and administrative assistance were found to be inadequate. Though students view the opportunities provided by these courses positively, their engagement with the course structure and active participation appear to be limited. The findings also highlight the importance of clear and timely guidelines to ensure the smooth implementation of multidisciplinary courses.

One of the major challenges in implementing multidisciplinary approach is the declining of financial support from the government, poor infrastructure, weak institutional management and low enrolment in rural colleges. Other obstacles include limited resources and absence of support from other disciplines. Teachers often struggle to integrate content from various subjects effectively. Students find the broad and complex range of course options overwhelming leading to confusion and lack of engagement. Furthermore, adapting to the revised curriculum and credit system is difficult for student's insufficient faculty support and lack of administrative guidance. Although students recognize the potential benefits of multidisciplinary courses, their overall participation remains limited.

Conclusion

Multidisciplinary approach does bring sudden changes which requires adaptation to teachers as well as students. Students do favour opting for courses other than their streams but it requires adaption to the changes which affect their academic performance. There is urgent need for clear policies, financial support especially in rural areas and better institutional coordination to ensure the successful implementation of multidisciplinary education in India.

References

- Baidya, M. N. (2025). A study of multidisciplinary courses at the UG level. *The Social Science Review: A Multidisciplinary Journal*, 3(2), 80–84. <https://doi.org/10.70096/tssr.250302014>
- Chhablani, Karishma. (2024) Challenges in Implementation of Multidisciplinary Education. *Journal of Advanced Zoology*, 45(4) 332 -337 <http://dx.doi.org/10.53555/jaz.v45iS4.4209>
- Government of India, Ministry of Human Resource Development (2020). National Education Policy 2020. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
- Guidelines for Implementation of NEP 2020: Multiple Entry and Exit in Academic Programmes offered in Mizoram University (2021). Task Force Committee for Implementation of National Education Policy 2020 in Mizoram University. <https://mzu.edu.in/wp-content/uploads/2022/02/MZU-NEP-2020-Guidelines.pdf>
- Hossain A & Mondal G. C. (2019). History and Milestone of Higher Education in India, *International Journal of research an Analytical Review*, 6(1), 978-983.
- Mallik, C. (2023). Critical Analysis of NEP 2020 and Its Implementation, *International Journal of Novel Research* 8(6), 877-880. <https://www.ijnrd.org/papers/IJNRD2306594.pdf>
- Park, J. Y., & Son, J. B. (2010). Transitioning toward transdisciplinary learning in a multidisciplinary environment. *International Journal of Pedagogies and Learning*, 6(1), 82–93. <https://doi.org/10.5172/ijpl.6.1.82>
- Shanmugapriya, S & Pavithra, S. (2024). Holistic Multidisciplinary Education https://www.researchgate.net/publication/379597341_Holistic_Multidisciplinary_Education
- Singh (2023) Challenges of a multidisciplinary approach in higher education. *International Journal of Advanced Academic Studies*, 5(9): 30-32. <https://doi.org/10.33545/27068919.2023.v5.i9a.1049>
- Upadhyay, S. (2024). Beyond Boundaries: Exploring Multidisciplinary Education for Holistic Learning, *International Journal of Creative Research and Thoughts*, 12(3), ISSN: 2320-2882, 600-603. <https://ijcrt.org/papers/IJCRT2403787.pdf>