International Journal of Social Science and Education Research

ISSN Print: 2664-9845
ISSN Online: 2664-9853
Impact Factor: RJIF 8.42
IJSSER 2025; 7(2): 1064-1067
www.socialsciencejournals.net
Received: 10-09-2025
Accepted: 15-10-2025

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Skill Development and Vocational Education in NEP 2020: A Critical Assessment

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DOI: https://doi.org/10.33545/26649845.2025.v7.i2m.479

Abstract
The NEP 2020 is a transformational response to the way India looks at education. The most innovative part of the programme is its incorporation of skill training and vocational education into the mainstream school and higher education curricula. Vocational education, which was undervalued for so long, is now acknowledged as a major vehicle for improving employability, entrepreneurship and economic productivity. The policy suggests introducing vocational training right at the sixth grade, and pragmatic exposure through bagless internship, hands on learning, apprenticeship for internships etc. This paper critically appraises the conceptual vision and implementation realities of vocational education through NEP 2020, so as to discuss how far are we over 2020-2024. Utilizing Indian academic sources, government data and implementation reports the paper examines the success, difficulties and regional disparities in skill-based education reform. It also helps to bridge the systemic infrastructure, teacher capacity, curriculum integration and digital inclusion gaps. The results suggest that, although the policy is a radical one, its implementation is patchy especially in poorer states and rural areas. The paper contends that it will be futile to expect desired outputs from the NEP 2020 without making judicious efforts to address policy awareness, industry-academia collaboration and investment in vocational ecosystems. Lastly, the paper provides some policy suggestions to enhance scale, quality and equity in vocational education in India.

Keywords: National Education Policy 2020, Vocational Education, Skill Development, Educational Reform, Policy Implementation in India

Introduction
India is facing a demographic crossroads. It's home to one of the world's youngest populations - more than 65% are under 35 - and if they are skilled and employable, the country has a real shot at benefiting from a demographic dividend. But the gap between academic knowledge and workplace skills has long been an issue in policy discussions in India. As per the National Skill Development Corporation (NSDC, 2022), only less than 5 percent workers in India receive formal vocational training as compared to countries like Germany (75%) and South Korea (96%). Realizing this need, NEP 2020 laid down a strong vision for linking vocational education and skill development to school level of the Indian educational system. It is aimed at a re-invention of learning that transcends discipline, focuses on application and fosters preparedness for the future. For instance, NEP 2020 suggests 'mainstreaming' of vocational education from class 6 onwards, weaving in industry-relevant content at higher studies and introducing NSQF (National Skills Qualification Framework) for better coherence between vocational and general education (Malhotra, 2025) [6]. Also part with past reforms that considered vocational education as a second option/gateway or aligning it alongside general education tracks, NEP 2020 plans to make the vocational system an integrated structure of the mainstream learning curriculum to remove social stigma over vocation. It advocates for "bagless days," where students can make crafts, help on a farm or learn a local trade, and for hands-on internships. At tertiary level, the policy encourages broad-based degrees with an adaptable vocational skills module, credit transfer and exit options. The idea is to make the road from schooling to a first job as smooth as possible. But ambitious plans need strong implementation mechanisms. Many Indian states are facing the problems those include poor infrastructure, unavailability of professionally trained vocation teachers and funding issues as well as confusion regarding industry linkage mechanism (Goswami & Sau, 2025) [2].

While private urban institutions are in a position to include advanced courses such as robotics or AI, rural and government schools do not have basic amenities leave alone vocational labs and equipment (Tikhe, 2025) [12].

Furthermore, cultural attitudes continue to be a hindrance. Vocational education is sometimes perceived as second class to an academic route. Shifting these attitudes will involve the longer-term work of community engagement, capacity building and sustained policy advocacy. As Jain (2025) [3] points, entrepreneurship education has best prospects for success when embedded institutionally in localities and economies which can be brought forth in service of place-development rather than as a generic curriculum to be imposed. This study thus aims at critically analyzing the significance of NEP 2020 on vocational education and skill development. It attempts to pore through the policy vision, as well as on-the-ground realities of implementation from 2020-24. Adopting a qualitative approach based on secondary data and content analysis, the study explores key challenges, gaps and opportunities to be addressed in anchoring this far-reaching transformation.

Review of Literature

Studies on vocational education In India have increased a lot after NEP 2020. Traditionally, vocational education has been provided via the Industrial Training Institutes (ITIs) and polytechnics that work in isolation from mainstream schooling. Mehrotra (2025) [7] have noted, such institutions are characterised by an obsolete curriculum, poor industry interfaces and low enrolment as vocational education was never thought of as aspirational.

NEP 2020 contests this story by treating vocational learning as non-inferior to academic education. Singh and Dixit (2025) did research on the trends of higher education curricula inclusion vocational skill sets. They claim if the faculty are not trained, nor industry standards integrated into content, those reforms will remain at a superficial level.

The importance of assessment reforms to accommodate skills acquired through non traditional learning environments, is discussed by Ramchand, Gulati and Kumar (2025) [8]. They push for modular certificates, credits towards recognition and digital portfolios in evaluation models. But they add that state boards and universities fail to have the capacity to implement such reforms quickly:

Malhotra (2025) [6] provides a curriculum-specific analysis, which emphasizes the gap between textbook and vocational knowledge. Writing further, he noted that even when state syllabi have topics like financial literacy or carpentry skills, the actual implementation is quite limited because of lack of equipment, labs and trained professionals.

Goswami and Sau (2025) [2] emphasize the governance dimension. Their research shows that there are national law and regulations, but the state implementations vary significantly. For example, Kerala has introduced coding and electronics in middle schools while Maharashtra has done so for standards 6 to 8; Bihar and Jharkhand have yet to make any substantial improvements to their curriculum.

Jain (2025) [3] in the context of entrepreneurial education advocates that students should participate in community-oriented models based on local trades, artisanship and cottage industries. Instead, entrepreneurial mind-sets such as risk appetite or problem-solving skills must be acquired not through lecturing but by project-based project learning.

The Indian Journal of Vocational Education (PSSCIVE, 2024) presents routine field studies on hurdles including teacher William Emeny: A View from the Dick and Jane School policy shortage, inflexible curriculum and no career counseling to support direction for vocational tracks. One of the major conclusions that it comes to is that 70% of students don't know and have no idea, basically, what Career development learning (SDL now) means in their school.

Sarkar (2025) [9] highlights the higher education and vocationalization, argues that academic universities would have to recast degrees with Industry-based apprenticeships are established when it comes to engineering or management programs. He is advocating models of joint certification between universities and industry.

On the whole, the literature offers a rich yet guarded story — NEP 2020 is visionary even as its advancement will depend on multi-stakeholder alignment, institutional realignment, and long-term investment.

Justification of the Study

This research is motivated by several reasons. The first: India suffers from a serious skill mismatch in its labor market. While over 3.5 million students graduate every year, only a small percentage are truly employable because they lack practical skills." Second, NEP 2020 claims it will fill this gap by integrating vocational learning into mainstream education system, however very scant empirical studies have critically examined the issue of how well such an integration has taken place after its implementation.The third, is regional divide — as urban school and universities in prosperous states have started incorporating bits of NEP 2020's vocational drive; there are acute infrastructural and human resource shortcomings in rural or backward regions. This comparison may be useful to the policymakers to make implementation plans context sensitive. Ultimately, the paper tries to provide a missing literature gap by providing a critical analysis of IIEBP specific in the India context and data from 2020 and presents how it does within the early days of usage. It is key to know about this for future revisions, midpoint policy check-ups and academic discussion.

Objectives

1. To examine the policy framework of vocational education under NEP 2020.
2. To evaluate implementation progress across Indian states and regions.
3. To identify infrastructural, pedagogical, and institutional challenges.
4. To explore best practices and innovation models in vocational education.
5. To recommend strategies for improving scalability, equity, and quality of vocational learning.

Methodology

This research is a qualitative one and researchers have used both descriptive and analytical methods to discuss the mainstreaming of vocational education in NEP 2020. The study mainly relies on secondary data sources derived from official government's policy documents, i.e., NEP 2020, National Skills Qualification Framework (NSQF), National Credit Frame-work (NCrF). It also relies on publications by national agencies including the National Council of Educational Research and Training (NCERT), the National

Skill Development Corporation (NSDC) and Panḍit Suṅderlāl Śarmā Kendrīya Vyavasāyik Śikṣa Sansthān (PSSCIVE). In additional to this, a list of peer-reviewed academic papers published in Indian journals during 2020-24 and books authored by education scholars from India are also the part of literature base.

The analysis is based on thematic content analysis to identify patterns and ideas from the literature, which are coded and classified. A comparative reexamination of state wise policy action in India is also carried out to underscore regional disparities and localized problems. Second, the examine also shares a critical policy perspective where some values as equity, efficiency and feasibility are used to check-in not only policies on vocational reforms as per NEP 2020, but the universal relevance and inclusivity of these. Although the research is not informed by quantitative analysis, it offers critical interpretive lenses into the structural, pedagogic and administrative dynamics constituting vocational education in India during the early years of deployment of this policy.

Discussion

The NEP 2020 has overhauled India's take on education with its blueprint of a proposal for a fundamental shift in the system towards experiential and skill-based learning. The purpose of this part is to critically evaluate the progress made in implementation under Vocationalization and skill development programmes throughout India in 2020-2024 (including achievements, gaps, trends) etc.

Curriculum Integration and Pedagogical Reform

The NEP's dream of weaving vocational content into the elementary school (Grade 6 to Grade VIII) general curriculum is lofty and just. But it is a vision that has been realized unequally. In Kerala, Karnataka and Maharashtra some preliminary moves have been made to include vocational electives like electrical work, agriculture, coding and tourism (Kumar & Sau, 2025) [5]. These regions have started 'bagless days' in which students meet with craftsmen and go to shops. There are regional discrepancies in the curriculum being taught: In much of northern and eastern India, specifically in the states of Bihar, Odisha, and Uttar Pradesh, while on paper a change has been made there have been significant delays in getting textbooks revised to reflect that change; secondly there is a lack of vocational educators (Tikhe 2025) [12].

A vacuum of trained teachers seriously threatens the performance and viability of these reforms. Instructors often feel uneasy teaching vocational components because of their limited technical expertise and a dearth of instructional materials (Mehrotra, 2025) [7]. For example, although the Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) at has created content and teacher handbooks, very few schools are aware of it or know how to deploy them.

Assessment Reforms and Certification Gaps

A robust evaluation and certification system is also a pre-condition for success of college based vocational education. And as Ramchand, *et al* (2025) [8] point out, skill competencies and attributes such as craftsmanship, problem-solving or teamwork are not able to be captured with a traditional assessment. Although the National Credit Framework (2022) has been introduced to mainstream access to skill credits in general education, it is being implemented with wide variation across states.

For example, the National Skills Qualification Framework (NSQF) was supposed to provide a ladder for skill expansion but there is no cooperation between schools, school boards and higher education. This leads to fragmentation and duplication of effort, meaning that the learned vocations do not lead to recognized certification or placement in a job (Sarkar, 2025) [9].

Digital Divide and Access Inequality

High potential for digital learning tools and virtual labs for vocational education are hampered by India's digital divide. Though private schools and urban-based schools use learning management system, AR/VR tools and on-line certification courses, the government affiliated schools especially in rural areas lacks electricity or/and internet connection to computer room (Sonkamble & Tambekar 2025) [11]. While vocational learning in urban schools continued online during the pandemic lockdown, rural students lost months of skill-based content. The digital divide between urban and rural areas has driven further wedge to the policy goal of equity.

Industry Collaboration and PPP Models

NEP 2020 had envisioned strong industry and community participation, however the response has been negligible and inconsistent. As pointed out by Jain (2025) [3], this gap persists in the absence of any formal system that encourages corporates to participate in schools or skills training institutions. Though large corporates of the kind that the Skill India Mission has allied with are a preferred partner, small and medium enterprises too prove to be often outside its ambit because of logistical and administrative hurdles. There are some good things happening with skill hubs and incubation centres in the universities, especially in urban areas. These haven't yet travelled down to district-level colleges and schools, where most of India's young are educated.

Gender and Social Inclusion in the Career Paths

Though NEP 2020 lays a lot of stress on inclusive education but gender stereotypes continue to exist in the vocational streams. Soft skills: Girls are directed towards "soft" vocational trades like tailoring, health care, and hospitality and boys to technical fields such as electricals and mechanics (Goswami & Sau, 2025) [2]. Furthermore, underprivileged children mostly have limited exposure to quality vocational tools and career advice, and subsequently reproduce inequalities.

While the policy fosters local crafts and indigenous skills, impact on ground has been few culturally appropriate and regionally adapted programmes. Cookie-cutter vocational curriculum does not address the linguistic, cultural and occupational diversity of India (Krishna, 2025) [4].

Conclusion

NEP 2020 provides a forward-looking, inclusive and integrated vision of skill development and vocational education in the country. The power of this to change Indian education and future generations for the better is huge. It rightly recognises vocational education as a cornerstone of overall development, entrepreneurship and economic self-sufficiency. Except, the four years since it was launched

have demonstrated that having vision is not sufficient in itself. The road from policy to implementation is still plagued with obstacles at systemic and contextual levels.

The study argues that there are clusters of good practice and successful experimental applications but widespread roll-out is not systematic, is poorly monitored and not evaluated. Closing the digital gap, providing teacher training, producing context-specific curricula, and employment and education relationships are absolutely necessary in order to realise NEP 2020. To ensure meaningful and sustainable progress in the implementation of vocational education under the NEP 2020, a multi-pronged and context-sensitive approach is essential. Firstly, it is imperative to establish mandatory training programs for vocational educators, with a special emphasis on digital literacy, pedagogy, and industry-specific skills. Many existing teachers are ill-equipped to deliver practical training, especially in fields involving new technologies, and thus need continuous professional development that is both theoretical and hands-on. Secondly, the government must create financial and tax-based incentives to actively involve industries in the vocational education ecosystem. This includes encouraging companies—particularly in the manufacturing, service, and digital sectors—to provide internships, guest lectures, curriculum co-development, and apprenticeships. Without private sector participation, vocational training risks becoming outdated and misaligned with real-world requirements. Third, the curriculum should be regionally responsive, recognizing the diverse socio-economic and cultural landscapes across India. Modules should be designed to incorporate local trades, crafts, agricultural techniques, and business models, making learning more relevant and community-driven. This would not only boost local employment but also contribute to rural entrepreneurship and cultural preservation. In addition, a strong focus must be placed on promoting gender equity in vocational streams. Efforts should be made to challenge prevailing stereotypes that confine women to “soft skills” domains by introducing girls to fields such as carpentry, robotics, coding, and electronics. Simultaneously, boys should also be encouraged to explore caregiving or textile-related vocations, thereby creating a more inclusive and balanced workforce. Finally, there is a pressing need to strengthen real-time monitoring and evaluation mechanisms at the state and district levels. This includes setting up state education dashboards, periodic third-party audits, community feedback systems, and linking vocational training outcomes to employability metrics. Transparent and data-driven monitoring will ensure accountability and timely policy adjustments. In conclusion, the successful implementation of vocational education in India requires sustained political commitment, coordinated efforts across ministries, robust public-private partnerships, and inclusive policy design. Only through such comprehensive strategies can India harness the full potential of NEP 2020 and move toward becoming a self-reliant, skilled, and globally competitive nation.

References

1. Bala I, Kaur K, Dhiman T. Revolutionizing classroom learning through NEP 2020: Bridging policy and practice in modern education. Ludhiana: MultiArticles Publications; 2025.
2. Goswami P, Sau S. Evaluating the NEP 2020 vision for higher education in India: A critical perspective. Int J Multidiscip Res Explor. 2025;2(4):45-58.
3. Jain P. Entrepreneurship skills in new education policy. Jaipur: Indian Journal of Education and Management Research; 2025.
4. Krishna S. Engaging Gandhi in National Education Policy (NEP) 2020. PhilPapers J Indian Educ Stud. 2025;3(2):59-74.
5. Kumar DS, Sau S. Vocational education in NEP 2020: An empirical review. Indian J Educ Plann Res. 2025;9(1):24-39.
6. Malhotra BK. Impact of National Education Policy (NEP) on curriculum and pedagogy. New Delhi: RC Hub Publications; 2025.
7. Mehrotra VS. Revitalizing vocational education in schools: Lessons and way forward for implementation of NEP 2020. Indian J Vocat Educ. 2025;37(1):9-22.
8. Ramchand M, Gulati N, Kumar RS. Beyond a global assessment imaginary: Vocational reforms under NEP 2020. Contemp Educ Dialogue. 2025;22(3):199-213.
9. Sarkar SK. Educatum: Vocational perspectives in the Indian education landscape. Educatum J Behav Sci. 2025;17(2):34-48.
10. Singh SK, Dixit MP. Bridging higher education and industry: Curriculum effectiveness in skill development. J Indian Educ Policy Stud. 2025;4(1):11-30.
11. Sonkamble CP, Tambekar MR. New Education Policy 2020: Opportunities and challenges. Nagpur: Aryan Books; 2025.
12. Tikhe N. Reviving tradition: Integrating Indian crafts into contemporary education. Kalaa Samiksha. 2025;5(2):71-84