

Transforming India's Education: Skill-Based Learning Under Nep 2020

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Abstract:

This article explores the shift toward skill-based education in India under the National Education Policy (NEP) 2020, addressing the critical need for practical skills to combat unemployment and enhance employability. It evaluates the current landscape, highlighting government efforts like the Skill India Mission and Pradhan Mantri Kaushal Vikas Yojana (PMKVY), which have trained millions but face issues such as inconsistent quality and limited rural access. The future vision of NEP 2020 emphasizes vocational education integration, experiential learning, and industry-academia partnerships to foster innovation and lifelong learning. Implementation challenges, including societal biases against vocational training, infrastructure gaps, and inadequate teacher training, are analyzed. Proposed strategies focus on curriculum reform, public-private partnerships, and equitable access to ensure inclusivity. The article concludes that effective execution of NEP 2020 could position India as a global leader in skill-based education, driving economic growth and social development.

Keywords: Skill-based education, NEP 2020, Vocational training, Employability, Industry collaboration, Educational reform, India

Introduction:

India's education system has long prioritized theoretical knowledge, often leaving graduates unprepared for the practical demands of the modern workforce. With rising unemployment rates-reportedly reaching 6.1% in 2018, a significant increase from 2.1% in 2012 (The Wire)-the need for skill-based education has become urgent. The National Education Policy (NEP) 2020, approved in July 2020, introduces a transformative approach by integrating vocational training and practical skills into the curriculum. This policy aims to equip students with competencies like critical thinking, problem-solving, and technical expertise, fostering employability and innovation. This article explores the current state of skill-based education in India, its future under NEP 2020, government initiatives, implementation challenges, and strategies to overcome them, offering insights into how India can build a skilled workforce for the 21st century.

Present Status of Skill-Based Education in India:

Skill-based education in India has gained traction over the past decade, driven by government and private sector efforts to address the skills gap. The Skill India Mission, launched in 2015, aimed to train over 400 million people by 2022 (Skill India). By 2024, approximately 14 million youth have been trained, with 5.4 million upskilled, and over 11 million certified under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) (YourStory). The National Apprenticeship Promotion Scheme (NAPS) has

seen over 925,000 apprentices complete training, supported by direct benefit transfers totaling over ₹117 crore by 2023 (IBEF).

Numerous skill development institutes have been established, offering courses in sectors like healthcare, IT, manufacturing, and hospitality. For instance, Canon India opened two Skill Development Centres in 2024, targeting a 70% job placement rate for underprivileged youth (IBEF). Industry partnerships are growing, with companies setting up training centers to align skills with market needs. Vocational education in schools is also expanding, with states introducing courses like carpentry and coding in curricula. Online learning platforms, such as Coursera and Udemy, have made skill acquisition more accessible, particularly during the COVID-19 pandemic.

However, challenges remain. The quality of training varies, with some programs offering only short-term courses that lack depth (The Wire). Rural areas face infrastructure deficits, and awareness about vocational education is low. The mismatch between skills taught and industry requirements further complicates employability, with only 1.44 million of 3.15 million enrolled under PMKVY certified as of March 2025 (Vision IAS). Continued efforts to standardize training and enhance access are crucial for scaling impact.

Initiative	Description	Impact (as of 2024)
Skill India Mission	Launched in 2015 to train 400 million by 2022	14 million trained, 5.4 million upskilled
PMKVY	Short-term training and certification	11 million certified
NAPS	Apprenticeship training with industry	925,000 apprentices trained
Skill Development Centres	Sector-specific training institutes	Courses in healthcare, IT, hospitality

Future of Skill-Based Education under NEP 2020:

NEP 2020 envisions a transformative future for skill-based education, aiming to create a flexible, industry-aligned system. A key feature is the integration of vocational education into school curricula from grade 6, allowing students to explore trades like welding or digital marketing alongside academics. This early exposure fosters career awareness and practical skills. Flexible learning pathways enable students to choose subjects based on interests, promoting personalized education. For example, a student might combine physics with graphic design, tailoring their learning to career goals.

Experiential learning is emphasized through internships, apprenticeships, and project-based activities, shifting from rote memorization to hands-on application. This approach enhances critical thinking and problem-solving, as students work on real-world projects like building apps or designing sustainable products. Entrepreneurship education is another focus, encouraging students to develop business acumen and innovation skills. Programs may include modules on business planning or startup incubation, empowering students to create jobs.

Industry-academia collaboration ensures curricula meet market demands, with businesses contributing to course design and offering practical training. Technology integration, such as virtual labs and online platforms like the Skill India Digital Hub (Skill India Digital), expands access, especially in remote areas. Teacher training programs are prioritized to equip educators with skills to teach vocational

subjects, incorporating modern pedagogy and digital tools. Recognition of Prior Learning (RPL) allows informal skills, like those of a traditional artisan, to be certified, enhancing employability.

This vision aims to foster lifelong learning and inclusivity, but its success hinges on overcoming implementation barriers, such as societal biases and resource constraints, to create a robust skill ecosystem.

Government Initiatives Supporting Skill-Based Education:

The government has introduced several initiatives under NEP 2020 to promote skill-based education. Integration into mainstream education ensures vocational subjects are part of school and college curricula, enhancing employability. The Skill India Mission, extended to 2026 with ₹8,800 crore, includes PMKVY 4.0, which focuses on advanced skills like AI and digital marketing (Vision IAS). The National Skill Development Corporation (NSDC) coordinates training across sectors (NSDC).

The National Education Technology Forum (NETF) promotes digital tools for skill delivery, supporting platforms like the Skill India Digital Hub. Internship and apprenticeship programs, such as NAPS, provide practical experience, with over 925,000 apprentices trained by 2024. The National Assessment Centre (PARAKH) will standardize assessments, evaluating both academic and practical skills. Flexible curricula allow students to choose vocational courses, fostering personalized learning. Teacher training programs focus on upskilling educators in vocational pedagogy, while industry-academia collaborations involve businesses in curriculum design and internships.

Despite these efforts, the gap between targets and outcomes—such as only 1.44 million certified under PMKVY out of 3.15 million enrolled—suggests a need for better coordination and resource allocation to fully realize NEP 2020's goals.

Challenges in Implementing Skill-Based Education:

Implementing NEP 2020's skill-based education vision faces multiple challenges. Societal prejudice undervalues vocational training, with many viewing it as inferior to academic degrees, discouraging student participation. Deficient curricula often lack depth, offering basic introductions that fail to engage or prepare students for advanced roles. Limited industry engagement hinders curriculum relevance, as businesses may lack incentives to collaborate. Infrastructure deficits, particularly in rural areas, limit access to training facilities and technology.

Teacher training is inadequate, with a shortage of educators skilled in vocational subjects. Equitable access remains a challenge, with marginalized communities and rural populations facing barriers like transportation and awareness gaps. Quality assurance is inconsistent, with varying standards across training programs. Policy implementation suffers from bureaucratic hurdles and lack of coordination among stakeholders. Traditional assessment methods are ill-suited for evaluating practical skills, necessitating new approaches like performance-based evaluations. Resource allocation is limited, with competing priorities reducing funding for skill programs. Regional disparities exacerbate access issues, requiring tailored interventions.

These challenges, rooted in systemic and societal factors, require comprehensive strategies to ensure NEP 2020's success, as the current pace of progress risks falling short of expectations.

Strategies to Overcome Implementation Challenges:

To address these challenges, several strategies can enhance the effectiveness of skill-based education un

der NEP 2020. Enhanced curriculum development involves creating industry-aligned, hands-on courses with input from experts, incorporating projects like app development to engage students. Promoting industry participation through tax incentives and advisory boards can ensure curricula meet market needs. Investment in infrastructure, via public-private partnerships, can equip institutions with modern facilities, including mobile training units for rural areas.

Teacher training programs should focus on vocational pedagogy and technology use, with ongoing professional development. Improving access and equity requires scholarships, outreach campaigns, and online platforms to reach marginalized groups. Quality assurance mechanisms, such as accreditation and regular evaluations, can standardize training. Streamlined policy implementation needs clear guidelines and a centralized task force. Flexible assessment approaches, like portfolios, can better evaluate skills. Resource mobilization through CSR and international funding can support programs. Public-private partnerships can leverage industry expertise for training and job placement.

These strategies, if implemented effectively, can overcome barriers, ensuring that skill-based education empowers India's youth and drives economic growth.

Conclusion:

NEP 2020's focus on skill-based education offers a promising path to address India's unemployment crisis and prepare its youth for a dynamic global economy. While initiatives like the Skill India Mission have made strides, training millions, challenges such as societal biases, infrastructure gaps, and implementation hurdles persist. By adopting strategies like curriculum reform, industry collaboration, and equitable access initiatives, India can realize NEP 2020's vision. Collaboration among government, industry, and academia is essential to create a skilled, inclusive workforce that enhances economic and social development.

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