



FROM MARGINS TO MAINSTREAM: RE- POSITIONING VOCATIONAL EDUCATION IN INDIAN SCHOOLING IN THE LIGHT OF NEP 2020 AND NCFSE 2023

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Abstract: Vocational education in India has historically occupied a marginal position within the schooling system, often perceived as inferior to academic education and often associated with social stigma. This marginalisation has contributed to skill mismatches, youth unemployment, and a persistent disconnect between education and the world of work. The National Education Policy (NEP) 2020 and the National Curriculum Framework for School Education (NCFSE 2023) represent a significant paradigm shift by envisioning vocational education as an integral component of mainstream schooling rather than a peripheral alternative. This paper examines how these policy frameworks seek to reposition vocational education through early integration, curricular restructuring, experiential pedagogy, and flexible learning pathways. Using policy analysis as a methodological lens, the study explores the opportunities created by this shift—such as enhanced employability, learner engagement, and educational equity—while also identifying key challenges related to implementation, teacher preparedness, infrastructure, and societal attitudes. The paper argues that although NEP 2020 and NCFSE 2023 provide a robust and progressive framework for mainstreaming vocational education, the success of this transformation depends on sustained systemic support and a fundamental change in educational mindsets.

Index Terms - Vocational Education, Mainstream Schooling, NEP 2020, NCFSE 2023

INTRODUCTION

Education systems are increasingly being called upon to prepare learners not only for higher education but also for productive participation in rapidly changing economies. In India, however, schooling has long been dominated by an academic orientation that prioritises theoretical knowledge over practical and skill-based learning. Vocational education, when introduced, was largely confined to the higher secondary stage and was often viewed as a pathway for students who did not succeed academically. This resulted in social stigma, low enrolment, and weak institutional support for

vocational programmes. The integration of vocational education into mainstream schooling has emerged as a critical reform priority in India in response to persistent challenges such as youth unemployment, skill mismatch, high dropout rates, and the long-standing academic–vocational divide. As, historically, vocational education in Indian schools was positioned at the margins of the education system, introduced late in the schooling cycle and often perceived as an inferior alternative in academics. This structural and social marginalisation limited learner choice, reinforced educational hierarchies, and weakened the linkage between education and employability.

Vocational or skills-based education has gained increasing importance as employers now expect job-ready skills from new entrants to the workforce, especially for learners who must earn a livelihood soon after senior secondary education. Compared to academic degrees, vocational courses are more practice-oriented and are offered not only in technical institutes and colleges but also in universities, highlighting the need to introduce vocationalisation at the school level itself. Vocational Education and Training (VET) is therefore a key component of national educational initiatives, addressing both hands-on skill development and employment generation. For learners with clear career goals requiring practical expertise, vocational education plays a crucial role in ensuring sustainable livelihoods.

The **National Education Policy (NEP) 2020** acknowledges these structural limitations and calls for a fundamental rethinking of the role of vocational education in Indian schooling. This vision is further elaborated in the **National Curriculum Framework for School Education (NCFSE 2023)**, which provides curricular and pedagogical guidance for integrating vocational education within the broader school curriculum. Together, these frameworks aim to dismantle the rigid academic–vocational divide and reposition vocational education at the centre of holistic, inclusive, and future-ready schooling.

I. OBJECTIVE OF THE STUDY

This study adopts a **qualitative policy analysis approach**, drawing primarily on:

- National Education Policy 2020
- National Curriculum Framework for School Education 2023
- NCERT and PSSCIVE documents on vocational education
- Secondary literature including academic articles and policy commentaries

II. RESEARCH METHODOLOGY

The study aims to **examine the transformation of vocational education in Indian school education** by analysing the shift from marginalisation to its mainstreaming as envisioned in **NEP 2020** and operationalised through the **NCFSE 2023**. It also seeks to **identify the opportunities and challenges** associated with integrating vocational education into the school curriculum.

III. MAIN DISCUSSION:

3.1 Historical Background:

Vocational Education refers to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. This broad definition of the term ‘vocational education’ is aligned with the international definition of the term ‘Technical and Vocational Education and Training or TVET’ as defined by UNESCO (2020). These two terms are used interchangeably use in various documents.

Vocational education emphasizes practical, job-specific skills over purely theoretical knowledge. Vocational education in India has traditionally been characterised by late entry, limited subject options, inadequate infrastructure, and poor articulation with higher education and employment pathways. If historically analyses, Mahatma Gandhi had a visionary approach to education that is still relevant today. He believed education was crucial to socioeconomic growth and recommended a basic education system based on vocational training and job experience. Gandhi valued manual effort and fostered creative thinking from school to higher education. This concept was strengthened by the Wardha Scheme of Basic Education (1937), which advocated teaching all subjects through an industry or profession, employing the Samavaaya (integration) technique to teach basic crafts. It also emphasised connecting learning to the home, community, and the child's daily existence (Samagra Shiksha Scheme, Ministry of Education, Government of India,2021).

In India, vocationalisation efforts began with the Kothari Commission (1964–66) and were reinforced in NPE 1986, These **policies** recognised the importance of vocationalisation but failed to integrate it meaningfully into mainstream schooling. Yet enrolment remained below 5 % for decades because of deep-rooted societal bias that equated academic success with social status (Saikia , 2023).As a result, vocational education remained marginal, under-resourced, and socially undervalued . In 21 st century the Twelfth Five-Year Plan (2012–2017) showed that India has a big skills gap by saying that less than five percent of adults aged 19 to 24 had formal vocational training. This number is very different from the significantly higher percentages of involvement in vocational training seen in other nations, such as the United States (52%), Germany (75%), and South Korea (96%). These differences make it evident that India needs to quickly and significantly improve and expand its vocational education system.(Government of India ,NEP ,2020).

3.2 NEP 2020: Re-envisioning Vocational Education in Indian Schooling

NEP 2020 marks a decisive shift in educational thinking by positioning vocational education as an integral component of school education. The policy's vision for vocational education is articulated primarily in **Part II (Higher Education), Chapter 16 (Re-imagining Vocational Education)** and related sections across the document (Government of India, 2020).

A. Early Introduction of Vocational Exposure (From Grade 6)

- NEP 2020 mandates the introduction of vocational education from **Grade 6 onwards**, emphasising experiential and hands-on learning (Chapter 16, Para 16.4).
- The policy proposes short-term internships, crafts-based activities, and exposure to multiple vocations during middle school years.
- Mandatory internships/apprenticeships from Grade 6–8 onwards, scaled up in higher classes.
- Early exposure is intended to support career awareness and challenge social hierarchies associated with manual and skill-based work (Chapter 16, Para 16.1).

B. Integration with General Education

- NEP 2020 explicitly rejects rigid separation between academic and vocational streams (Chapter 4, Para 4.4; Chapter 16, Para 16.3).
- students would continue to have the option of exiting after Grade 10 and re-entering in the next phase to pursue vocational or any other courses available in Grades 11- 12, including at a more specialized school, if so desired. (Chapter 4, Para 4.2)
- Students will be given increased flexibility and choice of subjects to study, particularly in secondary school - including subjects in physical education, the arts and crafts, and vocational skills – so that they can design their own paths of study and life plans. (Chapter 4,Para 4.9)

- Vocational education is to be embedded within the general curriculum to promote interdisciplinary learning and flexibility.
- This integration aims to ensure parity of esteem between vocational and academic pathways.

C. Expansion of Access and Coverage

- NEP 2020 talked about the universal access and afford opportunity to Children of the country to obtain quality holistic education—including vocational education - from pre-school to Grade 12. (Chapter 3,Para 3.1)
- The policy sets a target of providing **vocational exposure to at least 50% of learners by 2025** (Chapter 16, Para 16.4).
- This target reflects a commitment to large-scale inclusion and mainstreaming of vocational education.
- NEP 2020 identifies low enrolment and social stigma as key challenges to be addressed through systemic expansion (Chapter 16, Para 16.1).

D. Alignment with the National Skills Qualifications Framework (NSQF)

- NEP 2020 mandates alignment of vocational courses with the **National Skills Qualifications Framework (NSQF)** (Chapter 16, Para 16.5).
- NSQF alignment is intended to ensure standardisation, quality assurance, and nationally recognised certification.
- It facilitates both vertical mobility (progression to higher education) and horizontal mobility (movement across skill levels and sectors).

E. Emphasis on Dignity of Labour, Entrepreneurship, and Life Skills

- The policy emphasises respect for all forms of work as a core educational value (Chapter 4, Para 4.4; Chapter 16, Para 16.1).
- Entrepreneurship education is promoted to encourage innovation and self-employment (Chapter 16, Para 16.3).
- Life skills such as problem-solving, communication, collaboration, and adaptability are integrated as cross-cutting competencies (Chapter 4, Paras 4.5–4.6).

F. Integration of Local Contexts and Indigenous Skills

- NEP 2020 encourages the inclusion of **local trades, crafts, and indigenous knowledge systems** within vocational education (Chapter 16, Para 16.2).
- Integration of ‘Lok Vidya’, i.e., important vocational knowledge developed in India, Traditional arts, crafts, and occupational knowledge will be made accessible to students through integration into vocational education courses. (Chapter 16,Para 16.5)
- Schools are encouraged to collaborate with local artisans, practitioners, and community experts.
- This approach aims to contextualise learning and strengthen community–school linkages.

G. Industry and Sectoral Linkages

- The policy highlights the importance of partnerships with industry, local enterprises, and Sector Skill Councils (Chapter 16, Paras 16.3–16.5).
- Encouragement of hub-and-spoke models where ITIs/polytechnics act as hubs for clusters of schools.
- Apprenticeships and workplace-based learning are emphasised as key pedagogical strategies.

H. Teacher Preparation

- NEP 2020 acknowledges the need for specialised teacher preparation for vocational education (Chapter 5, Para 5.22; Chapter 16, Para 16.5).
- The policy supports the recruitment of skilled practitioners and industry experts as instructors.

3.3 NCFSE 2023: Key Areas for Mainstreaming Vocational Education

Vocational education plays a vital role in preparing learners for both work and life by developing relevant knowledge, skills, and values. School education must therefore enable students to either enter the workforce or pursue higher education, while recognising work as central to economic participation and a dignified human life. In alignment with this vision, the National Curriculum Framework (NCF) 2023 emphasises a phased approach—building prevocational capacities in the early years, providing broad exposure to work in the Middle Stage, and developing specific vocational skills in the Secondary Stage to support meaningful employment and societal contribution.

A. Curricular Structure and Stages for Integrating Vocational Education (NCFSE 2023)

NCFSE 2023 integrates vocational education within the **5+3+3+4 curricular structure** and is guided by the concept of “**forms of work**” as the organising principle for curriculum design. Instead of prescribing specific vocations, the framework groups occupations into three broad forms of work—**work with life forms, work with materials and machines, and work in human services**—to ensure flexibility, local relevance, and the development of transferable capacities across stages.

a) Foundational Stage (Ages 3–8)

- Play-based introduction to the world of work through stories, games, and role-play related to community occupations
- Early exposure to all three forms of work in simple, age-appropriate ways
- Familiarisation with tools, materials, and basic productive activities
- Emphasis on motor skills, curiosity, creativity, and respect for the dignity of labour (prevocational capacities)

b) Preparatory Stage (Ages 8–11)

- Hands-on activities linked to arts, crafts, gardening, cooking, and basic technologies representing different forms of work
- Integration of vocational learning with language, mathematics, and environmental studies
- Observation-based projects to develop collaboration, problem-solving, and basic work habits

c) Middle Stage (Ages 11–14)

- Structured exposure modules across the three forms of work to build broad vocational capacities
- Introduction to tool handling, design thinking, and safety practices
- Community-based projects and short internships
- Interdisciplinary learning connecting vocational tasks with science, mathematics, and social sciences

d) Secondary Stage (Ages 14–18)

- Choice-based vocational courses aligned with specific forms of work alongside academic subjects
- Progressive skill specialisation mapped to NSQF levels
- Extended internships, apprenticeships, and industry-linked projects
- Preparation for employment, entrepreneurship, and higher education pathways, supported by transferable skills for lifelong learning

This forms-of-work–based curricular structure ensures continuity from foundational exposure to specialised vocational competencies, reflecting the vision of NCFSE 2023 to integrate vocational education meaningfully within mainstream schooling.

B. Integration with General Education Curriculum

- Vocational education embedded across **subject areas**, not treated as a standalone stream
- Real-world applications used to strengthen conceptual understanding
- Interdisciplinary curriculum planning to connect theory and practice
- Reduction of the academic–vocational divide

C. Experiential and Competency-Based Pedagogy

- Emphasis on **hands-on, project-based, and inquiry-driven learning**
- Development of transferable skills such as communication, teamwork, and adaptability
- Authentic learning contexts through fieldwork and workplace exposure
- Continuous reflection and skill demonstration

D. Flexibility and Choice in Learning Pathways

- Modular vocational courses allowing learner choice
- Multiple entry and exit points within the curriculum
- Opportunities to switch between vocational and academic pathways
- Alignment with lifelong learning principles

E. Assessment and Certification Reforms

- Performance-based and formative assessment strategies
- Use of portfolios, skill demonstrations, and practical evaluations
- Credit recognition aligned with **NSQF and academic frameworks**
- Transparent certification of vocational competencies

F. Local Contextualisation and Indigenous Knowledge

- Inclusion of **local crafts, livelihoods, and traditional skills**
- Community knowledge holders as instructional resources
- Region-specific vocational offerings
- Preservation and validation of Indigenous knowledge systems

G. Teacher Preparation and Institutional Capacity

- Pre-service and in-service training in vocational pedagogy
- Collaboration with industry experts and practitioners
- Institutional support for interdisciplinary teaching
- Redefinition of teacher roles as facilitators and mentors

H. Infrastructure and Resource Ecosystem

- Establishment of workshops, labs, and vocational studios
- Use of digital platforms and simulations
- Optimisation of school and community resources
- Bridging rural–urban infrastructure gaps

I. Equity, Inclusion, and Social Repositioning

- Addressing stigma associated with vocational education
- Inclusive access for marginalised learners
- Gender-sensitive vocational options

J. Governance and Implementation Mechanisms

- Inter-ministerial coordination between education and skill bodies
- Alignment with national schemes such as **Samagra Shiksha and Skill India**
- Monitoring, evaluation, and quality assurance frameworks
- Phased and context-responsive implementation

3.4 Opportunities in Re-positioning Vocational Education in Indian Schooling under NEP 2020 and NCFSE 2023

A) Mainstreaming and Structural Integration

NEP 2020 integrates vocational education into the core school curriculum, rejecting the traditional academic–vocational divide. NCFSE 2023 operationalises this integration across curricular stages, enhancing institutional legitimacy and reducing its association with low academic achievement.

B) Early Exposure and Normalisation of Skills

Vocational exposure from Grade 6 normalises work-based learning at an early stage. It promotes respect for labour, enables exploration of diverse occupations, and supports informed educational and career choices while mitigating social stigma.

C) Curricular Integration and Multidisciplinary Learning

The emphasis on contextual learning allows the integration of indigenous knowledge, traditional crafts, and local industries, enhancing curricular relevance, community engagement, and inclusive education.

D) Flexible Pathways and Learner Mobility

Alignment with the National Credit Framework and Academic Bank of Credits enables flexible movement between vocational and academic streams. This addresses the historical lack of progression pathways and supports lifelong learning and educational mobility.

E) Contextualisation and Local Relevance

The emphasis on contextual learning allows the integration of indigenous knowledge, traditional crafts, and local industries, enhancing curricular relevance, community engagement, and inclusive education.

F) Strengthening School–Work Linkages

Partnerships with industry, artisans, and local enterprises strengthen the connection between schooling and the world of work, improving employability and aligning education with labour market needs.

G) Reframing Social Perceptions of Vocational Education

By granting curricular parity and mainstream status, NEP 2020 and NCFSE 2023 challenge entrenched hierarchies that privilege academic credentials, contributing to a more equitable valuation of skills and labour.

3.5 Challenges in Re-positioning Vocational Education in Indian Schooling under NEP 2020 and NCFSE 2023

A) Infrastructure, Resource Constraints and Budget Allocation

A major challenge in implementing vocational education is the inadequate availability of workshops, tools, laboratories, and digital infrastructure in many schools. These shortages are more pronounced in government and rural schools, leading to uneven implementation across rural–urban and public–private institutions. As a result, students often receive limited hands-on exposure, which weakens the experiential learning focus envisioned in NEP 2020 and NCFSE 2023.

Percentage of total education spending on vocational training remains relatively small compared to global benchmarks — India reportedly spends around ~3% of its educational budget on vocational education and training (VET), while some developed systems allocate ~10–13%.

B) Teacher Preparation and Capacity

The successful integration of vocational education depends heavily on well-prepared teachers; however, there is a significant shortage of trained vocational educators. Existing teacher education and in-service training programmes often do not align with experiential, interdisciplinary, and work-based pedagogies, making it difficult for teachers to effectively deliver vocational curricula. Thus, it is essential to incorporate vocational education as an integral part of teacher education curriculum.

C) Persistent Social Stigma

Despite policy efforts to mainstream vocational education, strong social preferences for academic pathways continue to dominate parental and student aspirations. Vocational education is still widely perceived as a low-status option meant for those who are unable to succeed academically, which undermines its acceptance and limits voluntary student participation.

D) Risk of Early Streaming

There is a concern that vocational tracks may be informally assigned to students from disadvantaged or marginalised backgrounds at an early stage. Such practices risk reinforcing existing social and educational inequalities, contradicting the inclusive and choice-based vision of vocational education outlined in NEP 2020.

E) Weak School–Industry Linkages

Effective vocational education requires strong collaboration between schools and industry; however, many schools, especially in rural areas, struggle to establish reliable partnerships. This results in limited access to quality internships, apprenticeships, and workplace exposure, leading to inconsistencies in learning experiences and employability outcomes.

F) Assessment and Certification Challenges

Assessing vocational learning remains complex due to the shift from rote-based examinations to competency-based assessment. Moreover, vocational certifications are often not adequately recognised by higher education institutions and employers, reducing their credibility and limiting progression opportunities for students.

G) Curriculum Load and Time Constraints

Schools face considerable pressure in balancing vocational components with an already dense academic syllabus. Limited instructional time often leads to superficial integration of vocational elements, preventing meaningful skill development and undermining the transformative potential of vocational education under NCFSE 2023.

IV. Conclusion

The shift from marginalisation to mainstreaming of vocational education under NEP 2020 and NCFSE 2023 represents a landmark reform in Indian schooling. By integrating vocational learning into the core curriculum, these policies challenge long-standing academic hierarchies and envision an education system that is inclusive, flexible, and responsive to societal needs. However, the success of both initiatives is contingent on resolving ongoing issues that are associated with infrastructure, teacher preparedness, social attitudes, and systemic equity. There is a possibility that vocational education will have difficulty moving beyond symbolic inclusion if purposeful initiatives to overcome these obstacles are not implemented. If effectively implemented, this re-positioning has the potential to redefine the purpose of schooling in India and prepare learners for meaningful participation in both work and life.

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