



FROM POLICY PROMISE TO GROUND REALITY: A CRITICAL ANALYSIS OF VOCATIONAL EDUCATION UNDER NEP 2020 WITH REFERENCE TO UTTAR PRADESH

Anand Sagar¹, Dr. Tanu Varshney²

¹Research Scholar, Department of Economics, Shri Varshney College, Aligarh (U.P)

²Professor, Department of Economics, Shri Varshney College, Aligarh (U.P)

ABSTRACT

The National Education Policy 2020 gives vocational education a central place in India's school reform agenda by proposing early exposure to skills, integration of vocational and academic streams, internships with local experts, collaboration with ITIs and local industry, and the target that at least 50 per cent of learners should receive vocational exposure by 2025. This paper critically analyses the distance between this policy promise and ground-level reality with specific reference to Uttar Pradesh. The study uses policy analysis, secondary data, official scheme documents and a development-oriented conceptual lens to examine how vocational education is being mainstreamed through Samagra Shiksha, NSQF-aligned courses, employability skills modules, state skill missions and U.P.-specific initiatives such as Project Praveen. The paper argues that NEP 2020 represents a decisive shift from the older "diversion" model of vocational education to an "integration" model; however, implementation depends on infrastructure, trained vocational teachers, field exposure, certification credibility, social acceptance, gender-sensitive access, and local labour-market relevance. Uttar Pradesh is a significant case because of its large youth population, wide rural-urban diversity, strong need for employability-oriented education and the scale of public schooling. The analysis shows that policy design has become more coherent, but delivery remains uneven. The gap is not simply a shortage of schemes; it is the weakness of the implementation ecosystem that links schools, trainers, parents, employers, ITIs and district-level administration. The paper concludes that vocational education can contribute to employability, social mobility and regional development only if it becomes a respected, well-resourced and locally relevant part of secondary education rather than a symbolic add-on.

KEYWORDS: Vocational education; NEP 2020; Uttar Pradesh; Samagra Shiksha; Project Praveen; employability; skill development; secondary education; policy implementation; school-to-work transition.

1. INTRODUCTION

Vocational education has moved from the margins of educational debate to the centre of India's development agenda. In an economy marked by demographic pressure, changing labour markets and continuing educated unemployment, school education is increasingly expected to do more than transmit textbook knowledge. It must also prepare learners for work, enterprise, practical problem-solving, digital adaptation and informed career choice. The National Education Policy 2020 recognises this challenge and proposes to remove the hard separation between vocational and academic learning. It also states that by 2025 at least 50 per cent of learners in the school and higher education system should have exposure to vocational education, with internships and collaboration between secondary schools, ITIs, polytechnics and local industry (Government of India, 2020). This language marks a major policy shift because vocational education is no longer described merely as a separate track for those not pursuing conventional academic routes. It is presented as an integral part of holistic education.

The question, however, is not whether the policy vision is progressive. The more important question is whether the system can translate this vision into real learning experiences for students. India has a long history of recommending work-oriented education: the Kothari Commission, National Policy on Education 1986, Programme of Action 1992, National Skills Qualification Framework, Skill India Mission and Samagra Shiksha have all emphasised skills in different forms. Yet the old problems have repeatedly returned: low social prestige of vocational streams, shortage of trained instructors, weak workshops and labs, limited school-industry linkage,



uncertain certification value, and a tendency to treat vocational subjects as additional rather than central. NEP 2020 therefore inherits both a strong policy legacy and a difficult implementation burden.

Uttar Pradesh provides a useful and challenging setting for analysing this issue. It is one of India's largest states, has a massive school-going population, diverse district economies and a substantial youth cohort requiring employability-oriented education. The state's official portal describes vocational education as an integral part of general and continuing education and gives the Vocational Education and Skill Development Department a mandate to expand capacity, improve quality and facilitate technical and employment-based education through ITIs and the U.P. Skill Development Mission (Government of Uttar Pradesh, 2023). At the school level, Samagra Shiksha and Project Praveen represent attempts to embed skill training within regular education. The paper therefore examines Uttar Pradesh as a site where national policy promises encounter local realities of institutional capacity, rural-urban inequality, student aspiration and labour-market demand.

The central argument of this paper is that vocational education under NEP 2020 can become transformative only if it is evaluated as a system rather than a subject. A vocational course may be listed in the timetable, but its developmental value depends on tools, practical hours, trainer quality, assessment, parental trust, employer contact and progression routes. The gap between policy promise and ground reality is not only administrative; it is social and economic. Students and parents will value vocational education when it opens dignified options for higher technical education, apprenticeship, self-employment and better work. Employers will value it when they trust the certification and practical competence of learners. Schools will implement it seriously when vocational education is supported by infrastructure, monitoring and teacher development. Thus, policy analysis must connect vision, delivery and outcome.

2. OBJECTIVES OF THE STUDY

1. To analyse the policy vision of vocational education under NEP 2020 with special focus on integration of academic and vocational streams, early skill exposure, internships, employability and removal of social stigma.
2. To examine the delivery architecture of vocational education through Samagra Shiksha, NSQF, Skill India and state-level initiatives in Uttar Pradesh.
3. To assess the gap between policy promise and ground-level implementation in relation to infrastructure, teachers/trainers, curriculum, certification, internships and local labour-market linkage.
4. To evaluate the relevance of vocational education for employability, school-to-work transition, regional development and social inclusion in Uttar Pradesh.
5. To suggest policy measures for making vocational education more practical, credible, locally relevant and development-oriented at the secondary level.

3. METHODOLOGY AND SOURCES

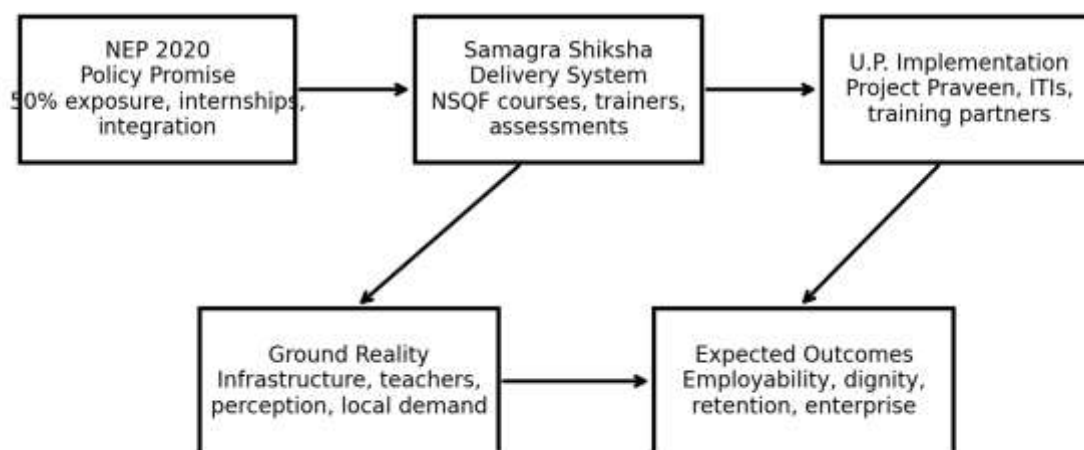
This paper is based on qualitative policy analysis supported by secondary statistical presentation. The analysis uses official policy documents, government scheme information, parliamentary responses, Samagra Shiksha materials, U.P. state documents, PLFS-related employment data and contemporary reports on school-based skill training. The methodology is analytical rather than field-survey based; therefore, the paper does not claim to measure direct learning outcomes of students. Instead, it critically examines the coherence between policy objectives and institutional requirements.

The policy-analysis framework used in the paper has three layers. The first layer is policy design: what NEP 2020 and related schemes promise in terms of vocational exposure, integration, internships, assessment and employability. The second layer is implementation capacity: whether schools, trainers, labs, funding norms and state agencies can operationalise these promises. The third layer is development relevance: whether vocational education can contribute to employability, income prospects, dignity of labour, retention, entrepreneurship and regional development. This framework is suitable because vocational education is not a single-input reform. It is a multi-actor intervention involving students, teachers, principals, parents, employers, training providers, ITIs and district administration.



Figure 3: Policy-to-Implementation Framework for Vocational Education

Policy-to-Implementation Framework for Vocational Education



Source: Author's synthesis from NEP 2020, Samagra Shiksha and U.P. policy context.

Brief discussion: The framework shows that outcomes depend on the alignment of policy promise, delivery system, state implementation and ground-level institutional reality.

4. CONCEPTUAL BACKGROUND: FROM VOCATIONAL TRACK TO VOCATIONALISATION

A conceptual distinction is required between vocational education as a separate track and vocationalisation as an integrated educational process. The older model of vocational education in India was often linked to diversion. Students were expected to enter vocational streams at the higher secondary level so that pressure on general higher education would decline and middle-level skilled manpower would be produced. This model had economic logic, but it created a social problem. In many places, vocational courses were treated as less prestigious than academic streams, and students who entered them were seen as academically weaker. The result was low aspiration, weak enrolment and limited parental confidence.

Vocationalisation, as imagined under NEP 2020, is different. It attempts to integrate skills into the mainstream curriculum so that every learner gets some exposure to work, craft, technology, entrepreneurship and local occupational realities. This does not mean lowering the academic standard. Rather, it means making academic education more meaningful by connecting it with life, work and society. A student learning mathematics should understand its use in retail, accounting or measurement. A student learning science should see its connection with health, agriculture, electrical work or environmental management. A student learning language should be able to communicate in workplace and service settings.

The development value of vocationalisation lies in the formation of usable capabilities. Skills are not only manual abilities; they include communication, problem-solving, self-management, digital awareness, entrepreneurship and green skills. Samagra Shiksha makes employability skills a mandatory module within vocational courses, including communication, self-management, ICT, entrepreneurship and green skills (Ministry of Education, 2022). This wider understanding is important for Uttar Pradesh because many students will enter mixed labour markets where formal jobs, informal work, self-employment and family enterprises coexist. A narrow trade certificate may not be enough; students require adaptable competencies and confidence.

5. NEP 2020 AND THE POLICY PROMISE

NEP 2020 makes several promises regarding vocational education. It proposes early exposure, a 10-day bagless period during Grades 6 to 8, internships with local vocational experts, availability of vocational courses through online modes and integration of vocational education into secondary schools in a phased manner. It also proposes



collaboration among secondary schools, ITIs, polytechnics and local industry. The policy intention is clear: vocational education should become an ordinary, respectable and flexible part of education rather than a marginal track.

The policy has three strengths. First, it attacks stigma by removing the hard separation between academic and vocational streams. This is important because social hierarchy has historically weakened vocational education. Second, it recognises the value of local experts. Internships with carpenters, gardeners, potters, artists and other local practitioners can create respect for traditional and practical knowledge. Third, it places vocational education within a continuum from school to higher education, which is necessary for mobility. If vocational subjects close future options, they will not be accepted by families. If they open multiple routes, they become aspirational.

At the same time, the policy promise is ambitious. Exposure to vocational education for 50 per cent of learners by 2025 requires massive capacity. It requires curriculum modules, trained teachers, assessment systems, local partnerships, student safety protocols, scheduling flexibility and monitoring. India's earlier experience shows that policy announcements cannot succeed if they are not supported by local delivery. Therefore, NEP 2020 should be read not as an endpoint but as a framework requiring sustained implementation.

Table 1: NEP 2020 Vocational Education Promise and Implementation Requirements

Policy promise	Operational meaning	Ground-level requirement
50% learner exposure by 2025	Large-scale vocational awareness across school and higher education	Modules, teachers, timetable space, monitoring and reporting
Integration of academic and vocational streams	Vocational subjects should not be inferior or separate	Parity in assessment, counselling and progression routes
Bagless days and internships	Students learn from local vocational experts and workplaces	Local mapping, safety arrangements and guided reflection
Collaboration with ITIs, polytechnics and industry	School-to-work and school-to-technical education pathways	District coordination, employer participation and referral systems
Online vocational courses	Flexible access to skill content	Digital infrastructure, language support and blended pedagogy

Source: Compiled from Government of India (2020) and NEP 2020 vocational education provisions.

Brief discussion: The table shows that every policy promise requires a corresponding implementation mechanism. Without such mechanisms, integration may remain symbolic.

6. SAMAGRA SHIKSHA AS THE DELIVERY ARCHITECTURE

The Government of India implements vocationalisation of school education under Samagra Shiksha. The scheme seeks to integrate vocational education with general academic education in government and government-aided schools and to prepare employable and competitive human resources for different sectors of the economy. Under the vocational education component, NSQF-compliant courses are taught from Classes IX to XII. At the secondary level, vocational modules are offered as an additional subject, and at the senior secondary level, vocational courses are offered as compulsory elective subjects (Samagra Shiksha, 2022).

The Samagra Shiksha architecture attempts to solve several earlier problems. PSSCIVE, a unit of NCERT, functions as the nodal agency for curriculum and courseware development in consultation with Sector Skill Councils. The scheme includes hands-on training, field visits, on-the-job training, guest lectures from industry, external competency-based assessment and joint certification by school boards and the concerned Sector Skill Council. It also advises states to treat vocational courses at par with academic subjects. These provisions show that the scheme is not limited to textbook teaching; it has a work-exposure and assessment component.

However, the architecture also reveals the scale of implementation challenges. Schools need labs, tools, consumables, safety arrangements and trainers. State Boards need to coordinate with Sector Skill Councils. Local employers need to provide exposure. Students need career guidance. The centre can design a framework, but delivery depends heavily on state capacity. In a state like Uttar Pradesh, where the number of students is very large and regional diversity is high, this delivery challenge becomes more complex.



Table 2: Samagra Shiksha Vocational Education Architecture

Component	Provision	Policy significance
Classes covered	NSQF-compliant vocational courses for Classes IX-XII	Connects secondary schooling with skill standards
Curriculum support	PSSCIVE/NCERT develops courseware with Sector Skill Councils	Adds technical and industry-based input
Employability skills	Communication, self-management, ICT, entrepreneurship and green skills	Broadens employability beyond trade-specific skills
Practical exposure	Hands-on training, field visits, on-the-job training and guest lectures	Prevents purely theoretical vocational education
Assessment	Competency-based assessment with Sector Skill Councils	Improves credibility and skill recognition
Certification	Joint certificate by school board and Sector Skill Council	Creates a bridge between school certificate and labour market

Source: Compiled from Samagra Shiksha vocational education information (Ministry of Education, 2022).

Brief discussion: Samagra Shiksha provides a structured delivery architecture, but schools require capacity and coordination to use it effectively.

7. UTTAR PRADESH CONTEXT: WHY THE STATE MATTERS

Uttar Pradesh is not merely one more state in the discussion of vocational education. Its size makes it central to any national skill strategy. The state contains large urban centres, small towns, rural and agricultural economies, traditional crafts, manufacturing clusters, service-sector expansion and high youth aspirations. Many students seek degrees and government jobs, yet local economies also need technicians, computer operators, health support staff, retail workers, repair workers, logistics assistants, electricians, beauty and wellness workers, food processing workers, agri-service providers and small entrepreneurs.

The U.P. government's official description of vocational education recognises that it is an integral part of general education and continuing education. The state's Vocational Education and Skill Development Department is expected to expand capacity, improve quality and facilitate technical and employment-based education through ITIs and U.P. Skill Development Mission programmes (Government of Uttar Pradesh, 2023). This indicates a policy convergence between school education and skill development. Yet the practical question remains: can the school system make vocational learning credible before students leave secondary education?

The U.P. Samagra Shiksha financial and management manual identifies vocational education as an integral part of general education at secondary and higher secondary levels to enhance employability. Its 2023-24 annual target includes 1,600 new schools under vocational education, 15 lakh students enrolled in vocational courses in Classes IX-XII, and 6,500 schools providing exposure to vocational education at the middle stage (Uttar Pradesh Samagra Shiksha, 2024). These targets are significant because they show that vocationalisation is not an isolated pilot. It is being placed within large-scale school planning. But the same scale creates risk: expansion can become numerical rather than qualitative if trainer capacity, monitoring and local relevance do not keep pace.

Table 3: U.P. Samagra Shiksha Vocational Targets for 2023-24

Indicator	Annual target 2023-24	Analytical relevance
New schools covered under vocational education	1,600	Shows planned expansion of secondary vocationalisation
Students enrolled in vocational courses in Classes IX-XII	15 lakh	Indicates the scale of school-based skill exposure
Schools covered for vocational exposure at middle stage	6,500	Reflects NEP 2020 emphasis on early exposure
Secondary GER in U.P. (2021-22)	79.56%	Indicates the size of the secondary base for vocational courses
Secondary dropout rate in U.P. (2021-22)	12.62%	Shows why vocational relevance may support retention

Source: Compiled from Uttar Pradesh Samagra Shiksha Financial Management and Procurement Manual 2024.



Brief discussion: The targets show policy ambition at scale. The challenge is to ensure that expansion is accompanied by infrastructure, trainers and meaningful practical learning.

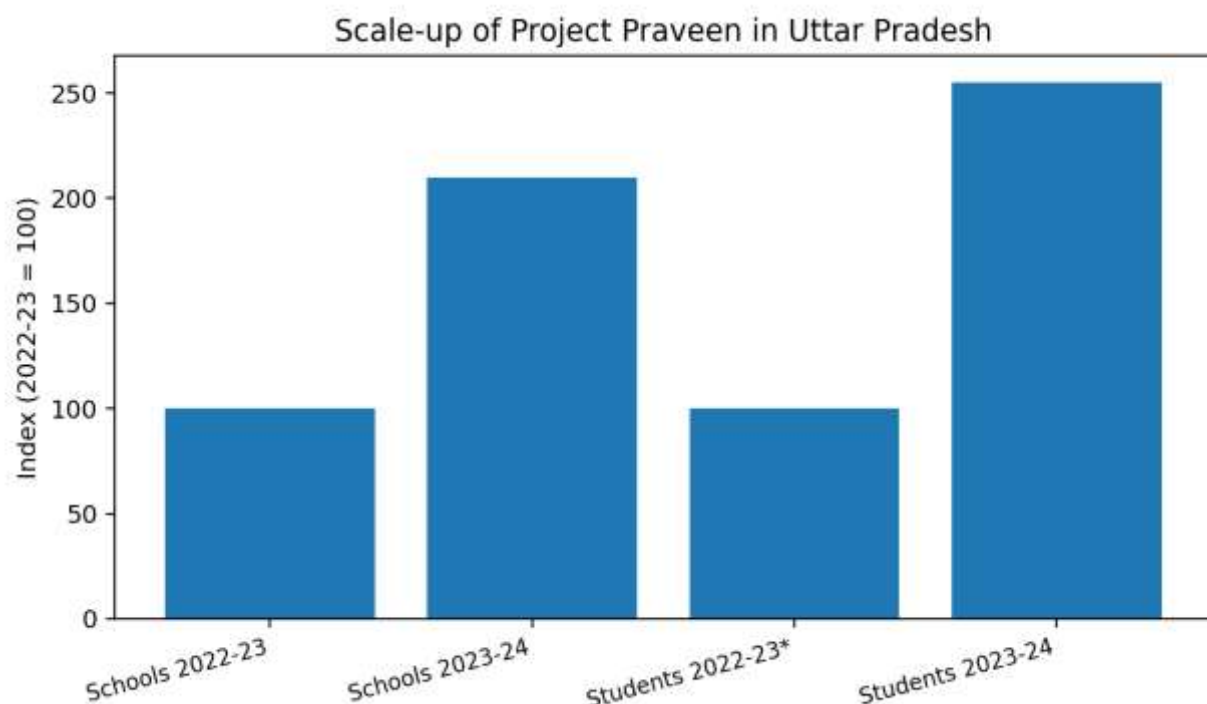
8. PROJECT PRAVEEN: A STATE-LEVEL BRIDGE BETWEEN SCHOOL AND SKILL MISSION

Project Praveen is a noteworthy initiative because it attempts to provide free skill training to students of Classes IX to XII alongside regular studies. The project is operated through a memorandum of understanding between the Secondary Education Department and the U.P. Skill Development Mission. Available reports indicate that the initiative began as a pilot in 2022-23, covering 20,582 students across 150 government secondary schools, with additional linkage of 3,450 girls from Kasturba Gandhi Girls Schools. For 2023-24, 315 government secondary schools were included and around 61,400 students had received training through these institutions (Drishti IAS, 2024). Courses include trades aligned with student interest and labour-market relevance such as IT, electronics, beauty, healthcare, apparel and accounting.

The importance of Project Praveen lies in its design logic. It connects school students with certified skill training while they remain in the academic system. This directly reflects NEP 2020's integration approach. It also attempts to reduce the distance between policy and student experience by bringing trainers into schools. If implemented well, such a model can increase employability awareness, provide students with recognised certification, and build bridges to further technical education or employment.

However, the initiative must be assessed critically. The success of Project Praveen depends on trainer quality, regularity of classes, adequacy of tools, meaningful assessment, certification credibility and post-training guidance. If training becomes rushed or exam-oriented, the impact will be limited. If students complete the course but do not know how to use the certificate, the motivational value will decline. Therefore, Project Praveen should be evaluated through learning outcomes, student perception, gender participation, employer linkage and transition pathways, not only through the number of students trained.

Figure 2: Scale-up of Project Praveen in Uttar Pradesh



Source: Compiled from reported Project Praveen figures for 2022-23 and 2023-24.

Brief discussion: The indexed chart makes schools and students comparable. It shows that both institutional coverage and student coverage expanded rapidly from the pilot year, but outcome quality still requires separate evaluation.

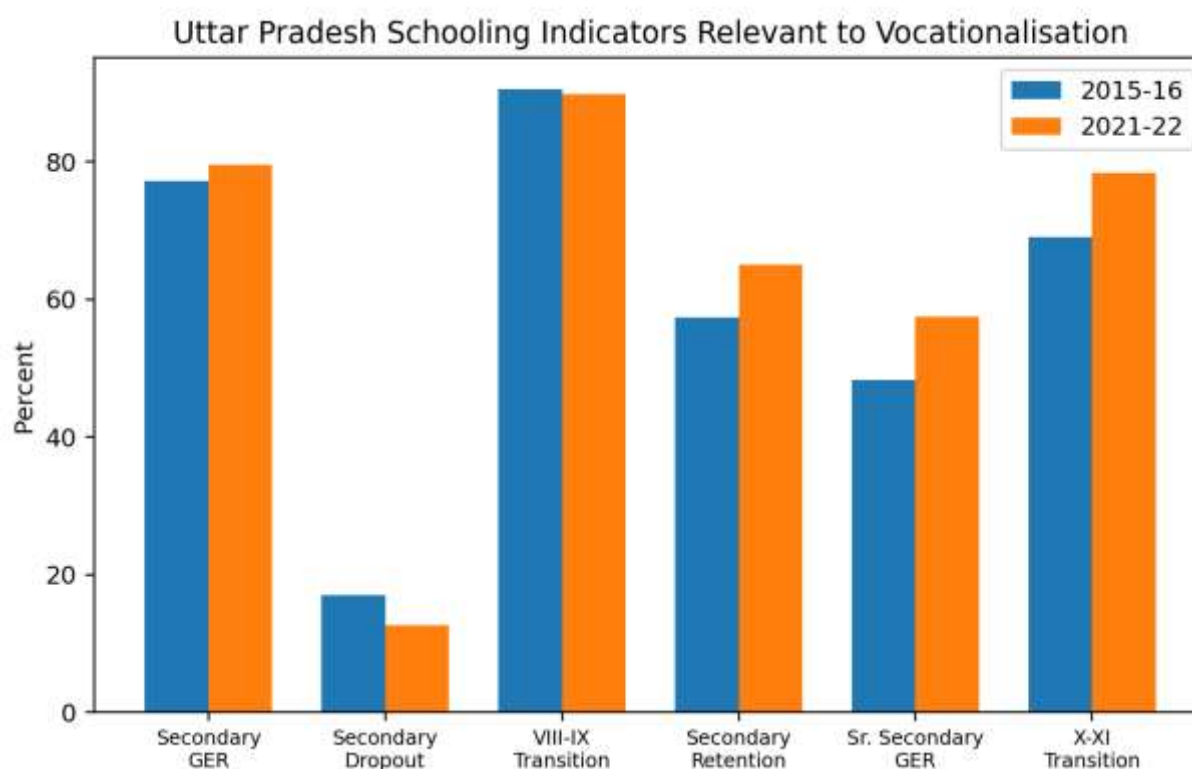


9. STATISTICAL PRESENTATION AND ANALYSIS

Statistics are useful for understanding the scale and direction of policy implementation, but they must be interpreted carefully. The available data show expansion of vocational education at the national and state levels, improvement in certain school indicators in Uttar Pradesh, and large targets for vocational exposure. At the same time, the data do not automatically prove quality or impact. Enrolment in a vocational course does not necessarily mean acquisition of skill; number of schools covered does not necessarily mean availability of functioning labs; number of trained students does not necessarily mean employment.

The data from U.P. Samagra Shiksha show that secondary GER improved from 77.20 in 2015-16 to 79.56 in 2021-22, while the annual average dropout rate declined from 17.06 to 12.62. Senior secondary GER increased from 48.32 to 57.56, and transition from Class X to XI improved from 69.04 to 78.41. These trends suggest that the system has moved towards wider participation, creating a larger base for vocational exposure. However, the secondary transition from Class VIII to IX declined slightly from 90.62 to 89.86, indicating that access and continuity still need policy attention.

Figure 1: Uttar Pradesh Schooling Indicators Relevant to Vocationalisation



Source: Uttar Pradesh Samagra Shiksha Financial Management and Procurement Manual 2024.

Brief discussion: Improvement in senior secondary GER and dropout reduction create a stronger base for vocational exposure, but transition and retention require continued focus.

10. POLICY IMPLEMENTATION GAPS

The first implementation gap is infrastructure. Vocational education requires more than classrooms. It requires workshops, equipment, tools, safety arrangements, consumables, storage, electricity, internet, demonstration materials and maintenance. Many schools are not designed for this. If tools are unavailable or locked, practical learning becomes theoretical. Students may pass assessments without confidence in actual work. This weakens both employability and public trust.

The second gap is teacher and trainer capacity. A vocational trainer must combine occupational skill with pedagogy. Teaching adolescents is not the same as training adult workers. Students require motivation, dignity,



counselling and step-by-step practice. Contractual or irregular trainers may help rapid expansion but may create continuity problems. Academic teachers also need orientation because they influence student attitudes. If vocational subjects are treated as less important in school culture, students will absorb that message.

The third gap is local labour-market linkage. NEP 2020 imagines collaboration with ITIs, polytechnics and local industry, but the nature of industry varies widely. In many districts of U.P., the relevant employers may be small workshops, retail stores, clinics, agro-service centres, digital kiosks, repair units, tailoring units and hospitality businesses rather than large factories. Therefore, industry linkage must be locally designed. Exposure visits, guest lectures, short internships, skill fairs and alumni interaction may be more practical than formal apprenticeship contracts in every school.

The fourth gap is social acceptance. Vocational education will not be chosen seriously if families see it as a lower-status route. In Uttar Pradesh, as in much of India, degrees and government jobs carry strong social prestige. Vocational courses must therefore be presented as additional capability and not as a substitute for aspiration. Students should be able to continue higher education, join ITIs or polytechnics, seek apprenticeship, work locally or create small enterprises. Mobility is the key to prestige.

The fifth gap is certification and progression. A certificate matters when employers, higher education institutions and training bodies recognise it. If students and parents do not understand the certificate, it will have little value. NSQF and Sector Skill Council assessments are useful mechanisms, but awareness at the school level is essential. Counselling must explain what a certificate means, where it is useful and what the next steps are.

Table 4: Major Ground-Reality Gaps and Suggested Policy Response

Gap	How it affects vocational education	Suggested response
Infrastructure gap	Turns skill training into theory and weakens student confidence	Minimum lab standards, hub-and-spoke support and maintenance grants
Trainer gap	Irregular or weak instruction reduces learning quality	Continuous trainer development and school-level monitoring
Local relevance gap	Courses may not match district economy or student aspirations	District skill mapping and employer consultation
Social perception gap	Families may see vocational subjects as inferior	Counselling, alumni success stories and parity in school culture
Certification gap	Certificates may not be understood or valued	Awareness on NSQF levels, SSC assessment and progression routes
Transition gap	Students may not know next steps after training	Linkages with ITIs, apprenticeships, job fairs and entrepreneurship schemes

Source: Author's synthesis based on policy analysis and reviewed evidence.

Brief discussion: The table converts the policy-delivery gap into action points that can be applied at state and district levels.

11. DISCUSSION: FROM POLICY PROMISE TO GROUND REALITY

The analysis shows that the policy promise of NEP 2020 is conceptually strong. It correctly identifies the failure of separation between academic and vocational streams. It recognises early exposure, local internships, skill-based learning and collaboration with technical institutions. It also aligns with India's need to convert demographic potential into productive capability. In this sense, NEP 2020 is not merely an education policy; it is a human-capital and capability-building policy.

Yet ground reality depends on the quality of translation from text to practice. Uttar Pradesh has taken important steps through Samagra Shiksha targets, vocational education department structures and Project Praveen. These initiatives suggest administrative seriousness. However, scale itself can hide uneven quality. A programme may expand rapidly across schools, but students may experience different levels of training depending on district, school leadership, trainer availability and local partnerships.



The most serious danger is symbolic vocationalisation. This occurs when vocational subjects exist formally but do not alter students' skills, aspirations or opportunities. Symbolic vocationalisation may involve modules without practice, certificates without recognition, exposure without follow-up, and counselling without labour-market information. Such an outcome would repeat the weaknesses of earlier vocational policies. Real vocationalisation, in contrast, should change the way students understand work, develop confidence, acquire practical competence and see multiple pathways after school.

The issue of equity is equally important. Vocational education can empower rural, low-income and first-generation learners if it provides high-quality training and mobility. But it can reproduce inequality if poor students are pushed into low-status tracks while privileged students continue academic routes. NEP 2020's integration model helps reduce this danger, but only if all students receive exposure and if vocational subjects are not coded as inferior. Gender-sensitive implementation is also necessary because girls may be channelled into limited trades unless schools consciously expand choices and ensure safe access to training sites.

A development-oriented evaluation must therefore use multiple indicators. Employment is important, but it is not the only outcome. For school students, vocational education may first produce awareness, confidence, interest in technical education, digital ability, self-employment orientation, dignity of labour and informed career choice. These intermediate outcomes should be tracked along with later employment and income. This is especially relevant in Uttar Pradesh where formal employment opportunities are uneven and many students may combine further study with family enterprise or local service work.

12. POLICY RECOMMENDATIONS

First, vocational education should be linked with district skill mapping. Course selection should reflect local economies. District-level committees should include school officials, ITI representatives, local employers, industry associations, parents and vocational trainers. A district with strong agriculture-linked livelihoods may need agri-processing, repair, livestock, food processing and digital documentation courses, while urban centres may need retail, healthcare, IT-ITeS, logistics, electronics and hospitality.

Second, every vocational school should have minimum infrastructure standards. The state should develop a checklist for tools, equipment, consumables, safety, practical hours, lab usage and maintenance. Inspection should not merely confirm whether a course exists; it should verify whether students are receiving hands-on learning. Hub-and-spoke models can help resource-constrained schools, but transport, scheduling and safety arrangements must be planned.

Third, trainer development should be continuous. Vocational trainers need induction, periodic upskilling, classroom pedagogy and child-safety orientation. Academic teachers and principals also require sensitisation so that vocational subjects receive respect within school culture. Training should include assessment methods, project-based learning, inclusion, gender sensitivity and local employer engagement.

Fourth, student and parent counselling must become compulsory. Counselling should explain course content, NSQF level, certification, related ITI/polytechnic options, apprenticeship routes, local work possibilities and entrepreneurship schemes. Parents must be shown that vocational education does not close academic futures. Career melas, alumni interaction and demonstration days can change perception more effectively than circulars. Fifth, internships and exposure should be meaningful. A 10-day bagless period or field visit should not become ceremonial. Students should have guided observation tasks, reflection sheets, project assignments and follow-up discussions. Local vocational experts should be respected as knowledge partners. This can build dignity of labour and make practical knowledge visible within school education.

Sixth, certification should be linked with progression. Schools should maintain records of students completing vocational courses and track whether they enter ITIs, polytechnics, apprenticeships, employment, self-employment or further education. Tracer studies at district level would help measure actual impact. Data should be disaggregated by gender, caste, rural-urban location and income group.

Seventh, vocational education should include digital and entrepreneurial skills across trades. Even traditional occupations increasingly require digital payments, online documentation, customer communication and basic marketing. Entrepreneurship modules should be practical: costing, pricing, customer handling, local market



survey, quality control and access to small credit. This will make vocational education relevant even where wage employment is limited.

13. EXTENDED CRITICAL ANALYSIS: EMPLOYMENT, EQUITY AND INSTITUTIONAL CAPACITY

A deeper reading of vocational education policy shows that the central problem is not only unemployment but the nature of employability. In many Indian states, including Uttar Pradesh, young people may possess formal schooling but lack the applied confidence required for work. Employers often look for punctuality, communication, basic digital handling, customer orientation, safety awareness and willingness to learn. These are not always taught through conventional academic subjects. NEP 2020 therefore correctly identifies vocational education as a way of making schooling more useful. Yet employability cannot be produced by short exposure alone. It requires repeated practice, feedback, work culture and a sense of responsibility. If vocational courses are reduced to a few theory periods, they will not change the employment prospects of students.

The policy must also be connected with the structure of the U.P. economy. Much of the employment available to secondary-level youth is located in small enterprises, informal services, family occupations, repair units, retail shops, transport, agro-based activities, health support services and local digital work. These sectors require skill, but they often do not recruit through formal campus placement systems. Therefore, a school-based vocational programme must not assume that every student will move directly into a formal job. Its more realistic function is to improve career awareness, prepare students for ITI or polytechnic education, support local livelihood readiness, and create confidence for self-employment or apprenticeships. This broader view is important because a narrow placement-based evaluation may underestimate the developmental value of vocational exposure while also missing its quality gaps.

Equity is another critical dimension. Vocational education can democratise opportunity when it is offered to all students with dignity and quality. But it can become unequal if poorer or weaker students are quietly pushed into vocational subjects while better-off students continue academic pathways. Such a pattern would contradict the integration principle of NEP 2020. Uttar Pradesh requires special attention because rural students, girls, first-generation learners and socially disadvantaged groups may face different barriers: transport difficulty, household work, low digital access, weaker career information and parental uncertainty. Therefore, vocational education should be accompanied by gender-sensitive counselling, safe access, flexible timing, community meetings and visible success stories. The test of inclusive vocationalisation is not whether disadvantaged students are enrolled, but whether they receive pathways equal in dignity and quality.

Institutional capacity remains the decisive factor. The state can issue orders, but the school is where policy becomes experience. A principal who values vocational education can arrange timetable space, monitor trainers and connect with local employers. A principal who treats it as a compliance burden may allow the programme to become irregular. Similarly, a trainer with strong pedagogy can convert basic tools into meaningful learning, while a poorly supported trainer may only dictate notes. The institutional culture of the school therefore matters as much as the formal scheme. Monitoring systems must include student feedback, practical records, lab use registers, trainer attendance, exposure visit reports and evidence of student projects. Without such monitoring, the government may count coverage while students experience little learning.

A further issue is the relationship between vocational education and academic achievement. Some parents fear that vocational subjects may reduce attention to board examination subjects. This fear can be reduced only if vocational learning is shown as complementary. Retail skills strengthen mathematics and communication; electrical skills require science and safety awareness; health assistant exposure demands language, empathy and basic biology; digital documentation strengthens computer literacy. Schools should therefore design interdisciplinary projects where vocational learning reinforces academic concepts. This would help remove the false opposition between knowledge and skill.

The final analytical issue is sustainability. Many vocational initiatives begin with enthusiasm but weaken after funding cycles or pilot phases. Sustainable implementation requires recurring funds for consumables, repair of tools, trainer renewal, curriculum updates and employer engagement. It also requires decentralised adaptation because a single trade list cannot serve every district equally. Uttar Pradesh should encourage district-level innovation within a state framework. A school cluster in an urban area may prioritise digital services, healthcare



and retail; a rural cluster may prioritise agri-services, food processing, solar maintenance, tailoring, repair and local enterprise. Such flexible implementation would bring policy closer to ground reality.

14. LIMITATIONS OF EXISTING POLICY PRACTICE

The current policy practice has several limitations that need careful recognition. First, policy documents often use the language of employability without defining how employability will be measured at the school stage. A Class IX or X student may not immediately enter work. Therefore, indicators should include awareness, skill confidence, practical exposure, certification, interest in further training and ability to explain a career pathway. Second, many statistics measure inputs rather than outcomes. Number of schools, students, trainers and job roles are useful, but they do not show the quality of practical learning. Third, vocational education often suffers from a weak data feedback loop. Schools may report enrolment, but district officials may not know whether students completed internships or used the certificate after school.

Fourth, coordination between departments remains a challenge. School education, skill development, labour, industry, ITIs and local employers operate through different administrative cultures. NEP 2020 asks for integration, but integration requires shared planning. Fifth, rural implementation may be different from urban implementation. Urban schools may find local employers more easily, while rural schools may need cluster-based exposure through hub schools, mobile labs or local experts. Sixth, the prestige problem has not been fully solved. Families may accept vocational exposure as an additional activity but still hesitate to treat it as a serious educational pathway. This means awareness campaigns must be continuous and evidence-based.

These limitations do not weaken the case for vocational education; they define the work that remains. A critical analysis should not reject NEP 2020 because implementation is difficult. Instead, it should show that the policy will succeed only when its institutional requirements are honestly acknowledged. The gap between promise and reality is bridgeable, but only through resources, accountability and social change.

15. IMPLICATIONS FOR FUTURE RESEARCH

The analysis also opens scope for further empirical research. Future studies should conduct district-level field surveys with students, teachers, principals, parents, vocational trainers and employers. Such studies can measure whether students understand the purpose of vocational education, how many practical hours they actually receive, whether equipment is usable, whether trainers attend regularly and whether parents consider vocational subjects respectable. Tracer studies are especially needed because the real value of vocational education appears after students leave school or move to the next stage. Researchers should examine whether vocational students enter ITIs, polytechnics, apprenticeships, local jobs, family enterprises or self-employment.

Another important area is comparative district analysis within Uttar Pradesh. A single state-level conclusion may hide differences between western U.P., Bundelkhand, Purvanchal, Rohilkhand and the central region. Course relevance in an agriculture-based district may differ from relevance in a manufacturing or service-oriented district. Future research should therefore connect vocational course selection with district economic profiles. Gender-based research is also needed because girls may face trade stereotyping and mobility restrictions. Finally, future research should evaluate the quality of Project Praveen through student learning outcomes, certification use, trainer capacity and employer feedback. Without such evidence, policy debate will remain dependent on enrolment and coverage numbers rather than real impact.

16. CONCLUSION

The movement from policy promise to ground reality is the central test of vocational education under NEP 2020. The policy has changed the language of reform by making vocational education a mainstream component of holistic education. It promises early exposure, internships, removal of hierarchy, collaboration with technical institutions and broad skill development. Uttar Pradesh has begun translating this vision through Samagra Shiksha targets, institutional skill structures and Project Praveen. These steps are important and deserve serious attention. However, the success of vocational education cannot be measured only through coverage. The real question is whether students acquire usable skills, whether parents trust the pathway, whether trainers teach effectively, whether schools have practical facilities, whether employers recognise certification, and whether students can move into further technical education, work or enterprise. The evidence suggests that the policy framework is stronger than before, but ground-level implementation remains the decisive challenge.



For Uttar Pradesh, vocationalisation can become a major development strategy if it is implemented with quality and regional relevance. It can support employability, reduce the gap between schooling and work, strengthen local economies, improve dignity of labour and create pathways for rural and marginalised students. But if it becomes a low-quality add-on or a second-choice track, it will reproduce earlier failures. The future of vocational education in the state therefore depends on one principle: integration must be real, not rhetorical. Schools must not only offer vocational subjects; they must make them meaningful, respected and connected with life after school.

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