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Vocational Education through Open Schooling in India - A Spectrum Case Study and Navigating the Future Roadmaps

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Abstract
In recent decades, the NIOS system has transformed school and vocational education not only in India but globally, as its inception is intrinsically connected to the issue of educational access and has significant consequences for individual empowerment and, consequently, national progress. The advent of open schooling in India commenced with the establishment of 'correspondence courses' at the matriculation level in 1965 and thereafter, in 1979, a remarkable milestone happened when the 'Central Board of Secondary Education' launched an 'Open School' as a project initiative, signifying a transition to an alternative educational system characterized by open enrollment and flexible course completion. But NIOS began providing vocational education courses through open schooling in 1992. The paper aims to deal with the case of vocational education through open schooling in India in terms of its performance in the last two decades. Lastly, it captures the daunting challenges of vocational education associated with access, equity, and quality education with an objective of navigating the future course of action.
Keywords: *Access to Education, Education Policy, NIOS, Open Schooling, Vocational Education.*

Introduction

The open schooling (OS) system has reshaped the landscape of school and vocational education, not only in India but globally, as its inception is intrinsically connected to the issue of educational access and has significant consequences for individual empowerment and national progress. The beginning of the open school program is thought to have commenced in 1914 as correspondence courses developed at the behest of a parent in Beech Forest, located in the Otway Mountains of Australia (Mukhopadhyay, 1994). By 1916, a specialized correspondence section had been formed. The effectiveness and prosperity of the school programme resulted in the proliferation of open schools across various Australian states and territories. After that, in 1919 and 1922, open schools were launched in 'Canada and New Zealand', respectively (Mukhopadhyay, 1994). The prevailing belief that 'open learning' and 'distance education' (DE) originated from higher education is baseless. In the decade of the 1960s, DE proliferated significantly across numerous countries, particularly in higher education through open universities. Simultaneously, distant education in both primary and secondary stages in open schools was limited to a select number of countries. Consequently, the modern perspective on distance learning is mainly linked to the Open University.

The OS movement is a concept whose moment has arrived. Numerous nations have established open schools for elementary and secondary learners, including 'Bangladesh, India, Indonesia, South Korea, and Zambia' (Mukhopadhyay, 1994). Efforts to establish parallel institutions are currently being considered in 'South Africa, Egypt, China, Nigeria' and numerous other nations. Although they commenced considerably later than open universities, open schools are swiftly gathering prominence, with some of them experiencing notably high enrollment. For instance, the 'National Institute of Open Schooling' (NIOS), established in 1989, is the largest OS institution globally by total learner enrolment.

Open schooling (OS) is an idea with the potential to revolutionize society at large and to foster the development of individuals, as it encourages learners to strive for and attain their goals (Rajagopalan, 2011). Open schools offer conventional education to pupils outside traditional school settings through specialized institutions utilizing diverse distance education technologies (Jenkins & Sadiman, 2000, p. 205; Sharma, 2013). It also makes provisions of "part-time, distance, blended or flexible study, and alternative routes to formal qualifications using credit accumulation, exam re-sits and on-demand examinations" (Latchem, 2018, p. 65). The concept of open schooling combines with

terms such as 'open education, open learning' and open systems. The primary meaning of OS pertains to the 'open education' or 'open classroom' movement (Cuban, 2004), which is rooted in the progressive and constructivist perspectives of human development advocated by Dewey and Piaget (Sarid et al., 2025). In this context, 'schooling' pertains to 'education at the primary and secondary stages', while 'open' signifies an educational approach that is flexible regarding the content, method, mode, location, and timing of learning. It is also flexible about enrollment methods, eligibility standards, and assessment schemes (Dewal, 2001, p. 109), along with flexibility concerning age and the merits of students' past knowledge. Open schooling is, thus, a system that uses distance learning as a mode of delivery and maintains the philosophy of openness for the sake of providing primacy to the learners' autonomy. It overcomes any limitations present in conventional face-to-face classroom communication (Jha et al., 2020; Dewal, 2004). Open learning stresses 'entry qualities and competencies over qualifications' (Mukhopadhyay, 1994). OS, as stated by the 'Commonwealth of Learning' (COL), refers to "the physical separation of the school-level learner from the teacher, and the use of unconventional teaching methodologies, and information and communications technologies (ICTs) to bridge the separation and provide the education and training" (Phillips, 2006, p. 9). Open schooling targets marginalized populations, offering a second opportunity for individuals of all ages to obtain essential skills crucial for economic viability and social fulfilment (Mukhopadhyay, 1994). It can support educators, especially who work in economically disadvantaged and developing nations, by offering novel methods and chances to enhance access to education (ibid.). Therefore, open schooling is an idea that provides "flexible learning opportunities at the school level and also a pedagogical practice that uses technology-mediated distance education mode of delivery" (Sharma, 2013, pp.13-14). It is fundamentally "a structural and pedagogical innovation to democratize education" (Dewal, 2004, p.1256) by reducing the rigidities of formal schooling while concurrently expanding the openness and flexibility of the educational system. These schools employ diverse mixes of 'print, broadcast, face-to-face' (Bradley, 2019) and multimedia to implement their programs (Yates & Tilson, 2000).

The emergence of OS in India commenced with the establishment of correspondence courses at the matriculation level in 1965 by the Board of Secondary Education, Madhya Pradesh (Rajagopalan, 2011; Gaba, 2006). This first system was supplemental, with numerous states, including Rajasthan, Uttar Pradesh, and Orissa, later adopting analogous approaches. In 1979, the 'Central Board of Secondary Education' (CBSE) launched an 'Open School' as a project initiative, signifying the move to an alternative system characterized by open entrance and flexible course completion (Rajagopalan, 2011; Gaba, 2006). The 'National Policy on Education' (NPE) of 1986/1992 recognized the necessity for alternative systems of education to tackle educational difficulties. The NIOS in India was established in 1989 as an autonomous body by the 'Ministry of Human Resource Development' (now Ministry of Education), 'Government of India' (GoI), through the integration of the 'Open School' project initiated by CBSE in 1979 (Rajagopalan, 2011). But, NIOS commenced the provision of vocational education programs via open schooling in 1992 (Barik, 2010). It was referred to as the National Open School until 2002. The NIOS is the biggest OS system globally, committed to providing education to all underserved individuals and regions (NIOS report, 2017-18). NIOS open schooling programs are delivered through a network of more than 6000 study centres. NIOS offers educational possibilities through open and distance learning (ODL) for all those seeking further studies and aspiring for a brighter future. The aim of NIOS is to deliver 'Education for All', with particular emphasis on "girls and women, rural youth, working people, SC/ST, physically and mentally challenged and other disadvantaged groups". The 'National Education Policy' 2020 (NEP) stresses the significance of NIOS in promoting education for all pupils, particularly focusing on 'Socio-Economically Disadvantaged Groups' (SEDGs) (GoI, 2020). As a 'National Resource Organisation for Open Schooling', NIOS develops and designs 'self-learning materials' corresponding to its pre-degree level courses and also produces supplementary audio and video resources that promote learning. NIOS provides a remarkable array of courses and strategies for learning, as well as innovative methods 'to learn, unlearn, and relearn' within the continuum of education. Now, it is essential to policy, reports cum documents, and research reviews in terms of the effectiveness and efficiency of open schools. Exploring areas of challenge can help identify possible future ways to revitalize vocational education.

Method and Sources of Material

This study employed content analysis and document analysis to analyze qualitative data, doing an in-depth analysis regarding data from both primary and secondary sources. Its sources include the reports-cum-documents published from NIOS, policy reports of GoI, and contemporary research studies on open schooling. This study has addressed the following cardinal research objectives –

1) To review the case of vocational education through open schooling in India in terms of its performance and effectiveness in the last two decades and lastly,
2) To navigate the future roadmaps to revamping the vocational education through open schooling in India.

Vocational Education through Open Schooling: A Case Study

India's shift towards a knowledge-driven economy necessitates a new generation of educated and skilled individuals (NIOS report, 2008-09). A rising demand for skilled labour exists, yet the current system fails to fulfil this need. Consequently, there exists a disparity between the skilled labour needed and the competent labour accessible. To enhance the system's relevance in a dynamic context, it is essential to develop a model for delivering 'vocational education' (VE) that is 'flexible, sustainable, inclusive' and innovative (NIOS report, 2008-09). Even the 'National Knowledge Commission' (2005-06) has advocated for a more flexible vocational education system within the country (NIOS report, 2006-07). 'Vocational education and training' (VET) are a crucial determinant for the development of any country. It acquainted individuals with careers as technicians or in skilled trades as tradespersons or artisans. It can also be regarded as a form of education aimed at preparing individuals to attain gainful employment or self-employment through the development of essential skills. In India, almost 90% of employment is in the informal sector, where workers are engaged in comparatively low-productivity positions (NIOS report, 2016-17). Skill training is a crucial element in enhancing employment options for learners, thereby enabling their contribution to national development. Skills and knowledge are the driving forces of this engine, facilitating a shift to a knowledge-driven society. Consequently, the availability of suitable skills may be a crucial intervention to enhance the productivity of the nation's workforce. The Vocational Education Department (VED) of NIOS offers different job-related courses with flexibility and accessibility to contribute effectively to the skill India initiative (NIOS report, 2016-17).

The NEP 2020 advocates for the revision and enhancement of all facets of education, encompassing the educational framework, rules, and governance, to establish a new system that aligns with the aspirational objectives of 21st-century learners (NIOS report, 2021-22, p. 36). As per NEP-2020, by 2025, a minimum of 50 per cent of students will have vocational experience through both school and post-secondary education (GoI, 2020, p. 44; NIOS report, 2021-22, p. 34). This aligns with 'Sustainable Development Goal 4.4' (SDG 4.4) and would facilitate the realization of India's population dividend's maximum potential (GoI, 2020, p. 44). It was also mentioned that by integrating vocational education into mainstream schooling systems, minimum 50 per cent of children from 6th class onwards should be exposed to VE (ibid). It is important that every child learn about one occupation and be exposed to more than one. The new policy asserts that there would be no rigid division between the 'vocational and academic streams'. The NEP 2020 seeks to overcome the societal hierarchy linked to VE and mandates the gradual incorporation of 'vocational courses' (VCs) into conventional schooling (GoI, 2020, p. 44). As a result, NIOS has announced that learners enrolling in the secondary and higher secondary levels must select one vocational course in addition to their academic disciplines. In the initial phase, it has been determined to execute one vocational course at the secondary stage and as an additional subject at the senior secondary stage. Let's see to focus on the case of vocational education in India.

Courses: NIOS provides over 100 VCs across six vocational primary fields: "agriculture and animal husbandry, home science and hospitality, engineering and technology, computer and information technology, and health and paramedical, including yoga" (NIOS report, 2020-21). The 'vocational education courses' (VECs) are available as 'six-month courses, one-year courses, stand-alone courses at the secondary and senior secondary levels, package courses, and life enrichment courses'. A 2-year diploma program in radiography is also available. The courses were created and structured with input from academics and entrepreneurs, keeping to the 'National Occupation Standards' established by the 'National Skill Development Council'. NIOS commenced formulating recommendations for the amalgamation of 'vocational with academic courses' for all its students. This assures that students who enrol in NIOS will have minimum one career by the time they complete the program. This would highlight the dignity of labor and the significance for different occupations related to Indian arts and artisanship. Partnership with ITI would be enhanced to ensure seamless incorporation of vocational and academic programs at the secondary and higher secondary stages.

Mode of Operation: The different vocational programs provided by NIOS consist of self-instructional printed content meticulously crafted by field experts, complemented by audio and video resources, along with personal contact programs and hands-on training at study centers referred to as AVIs (NIOS report, 2021-22). These are additionally enhanced by 'Radio Broadcasts, live television' conversation with students via 'PM e-VIDYA Channels, and audio streaming on the NIOS website, known as Mukta Vidya Vani'. The 'Study Webs of Active-learning for Young Aspiring

Minds' (SWAYAM) portal of the GoI offers eight VCs as 'Massive Open Online Courses' (MOOCs) (Latchem, 2018). These courses are freely accessible to learners. Approximately 24,000 pupils are registered on 'SWAYAM' and engaged in VCs in 2020 (NIOS report, 2020-21).

Training timetables for all vocational programs are accessible and distributed to the 'Accredited Vocational Institutes' (AVIs) to ensure the standardization of learning results nationwide. These timetables are arranged daily with corresponding learning results. To establish industry linkages, 'NIOS' is updating its courses to ensure compliance with the 'National Skills Qualification Framework' (NSQF) and to address industry demands. NIOS also collaborates closely with significant national organizations, including "National Council for Vocational Education and Training (NCVET), the Ministry of Textiles (MoT), the Indian Medical Association (IMA), the National Health Mission, the Ministry of Health & Family Welfare, the Food Safety Standards Authority of India (FSSAI), and the Indian Tourism Development Corporation (ITDC)" to improve enhancement of skills for its customers.

Course/ Material Development: Developing courses is an essential part of the VED. New courses are created based on the needs assessment reports conducted by several Sector Skill Councils across different vocational sectors. The courses are designed utilizing a 'Team-based Approach', in which an internal curriculum committee is established, comprising subject specialists from 'academia, industry representatives, entrepreneurs, sector skill council' representatives, and other relevant stakeholders. Courses are modified and altered according to requirements. All designed courses follow the NSQF and align with the job requirements specified by the sector skill councils. The goal of the courses has transitioned to learning output and competency-based approaches, resulting in the development of training timetables for all courses. The courses have been translated into Hindi, Urdu, and various other local languages.

Medium of Instruction: 'NIOS' currently provides its courses in 'Hindi, English, and Urdu' medium. Learners, however, are permitted to take the examinations in any Indian linguistic designated in the Indian Constitution.

Accredited Vocational Institutes (AVIs): The VED of NIOS works with a network of AVIs to provide skill-driven training to its pupils. Current institutions i.e., "Industrial Training Institutes (ITIs), Jan Shikshan Sansthans, Krishi Vigyan Kendras, schools, colleges, District Institutes of Education and Training (DIETs), universities, paramedical training centers, Non-Government Organisations (NGOs)", and various voluntary organizations are collaborating with NIOS to deliver VE. In recent decades, there has been an enormous rise in the total quantity of AVIs. As of March 2019, there are over 1,514 AVIs.

Target Group: Vocational courses under NIOS are available to students in 'pre-secondary, secondary, senior secondary and post-senior secondary stages'. The NIOS creates vocational education programs to serve a wide spectrum of students who may have missed traditional schooling or require flexible, skill-driven training. The main target groups comprise: "rural and urban poor populations; disadvantaged and marginalized groups, specifically: girls and women, scheduled castes (SC) and scheduled tribes (ST), minority communities, persons below the poverty line (BPL); school dropout; unemployed and partly employed individuals; persons with special needs; first-generation learners; neo-literates; and working children and street children".

Admission Criteria: Any student interested in enrolling in a Vocational Education program may register in accordance with the course's specified entry requirements, including the minimum qualifications. The eligibility criteria for admission to VECs range from literacy to completion of the 12th grade. Therefore, minimal qualifications are considered for admission based on the specific courses. The minimal age for enrollment in secondary and high-secondary courses is 14 and 15 years, and for certain specified vocational programs, it is 16 and 18 years (NIOS, 2018). The minimum enrolment age for courses designed for entry-level students who are literate or at a 5th-grade level is 11 years. No higher age limit exists for these courses. In this case, the NIOS does not have any liability concerning employment or the stipulations of the 'Child Labour (Prohibition and Regulation) Act-1986'.

Examination and Evaluation System: Examination and Evaluation are essential elements of the teaching-learning framework (NIOS report, 2018-19, p. 68). The NIOS evaluation process offers considerable flexibility, enabling pupils to complete their courses at their convenience. This process was designed to assess students' comprehension and skills, with a focus on the practical part. NIOS has developed an appropriate evaluation strategy that prioritizes the assessment of skills learned in vocational courses, reflecting to practical nature. In several cases, elements of internal assessment have been implemented to assure continued examination. Therefore, the evaluation may consist of three elements: (a) 'practical examination (b) theory examination (c) internal Assessment' (if applicable). The question papers for the theoretical assessments are 'bilingual' or specifically in 'Hindi and English'. But students may take examinations in 'Hindi, English' or a designated local language, regardless of the medium chosen for study at the moment of enrollment. Students would have a chance to utilize a total of 9 attempts within the five-year time

frame to complete the course. Students may select any examination without conditions upon finishing the necessary study duration and practical training.

Students' Enrolment: Enrolment in VECs under NIOS is available throughout the year. Seating is limited, and entry is granted on a 'first-come, first-served basis'. Enrollment in different VCs was conducted via an online network of AVIs around India. Learners are evaluated by AAs in accordance with the guidelines established by NIOS. Upon successful completion of the course, students are awarded a joint certificate issued by the appropriate AVIs and NIOS. Admissions in VECs at NIOS have shown a consistent upward trend in the past few decades, with certain exceptions. Here, in the last two decades, the spectrum of students' enrolment is captured in tables 1 to 3 and figures 1 to 3 given below:

Table 1: ***Trends in Students' Enrolment at Vocational Education Courses during Two Decades***

Year	Enrollment	Year	Enrollment
2000-2001	12,026	2012-2013	28035
2001-2002	17,770	2013-2014	27020
2002-2003	22,321	2014-2015	32472
2003-2004	21,211	2015-2016	30990
2004-2005	20,985	2016-2017	29724
2005-2006	22,879	2017-2018	27137
2006-2007	22,166	2018-2019	29153
2007-2008	23,674	2019-2020	20436
2008-2009	22343	2020-2021	7044
2009-2010	19073	2021-2022	34243
2010-2011	22,779	2022-2023	23026
2011-2012	26,354		

*Source: NIOS Annual Report (*2000-2001 to 2022-2023)

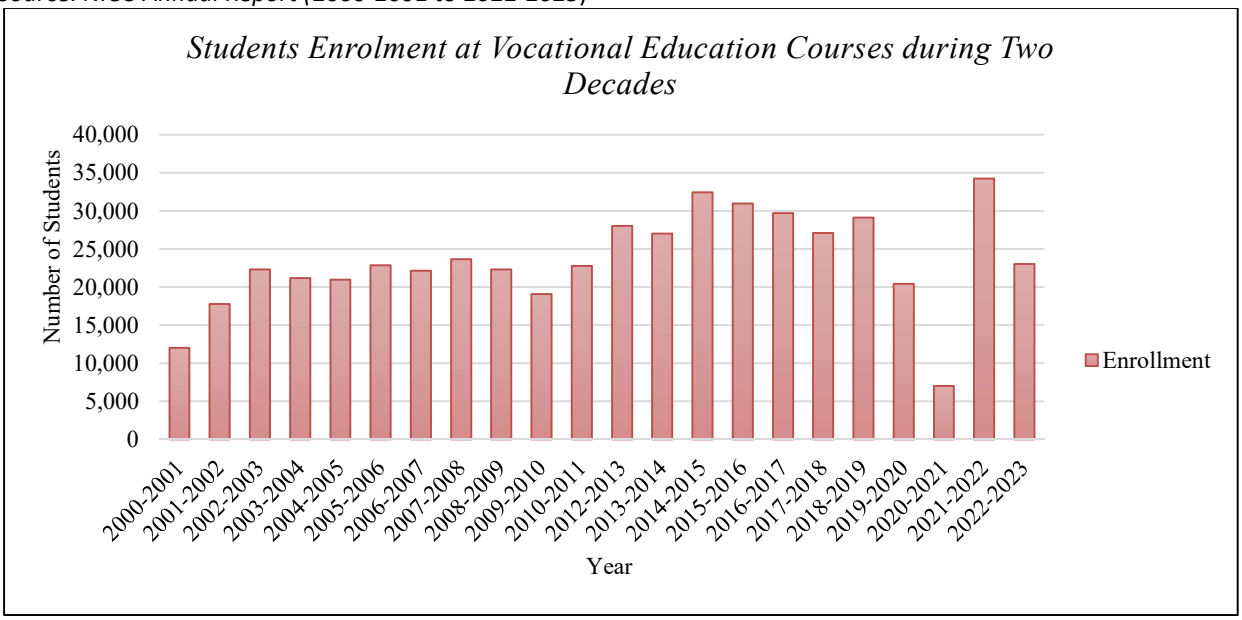


Table 1 and figure 1 depict the tremendous growth in the number of enrolled students in various vocational education courses from 2000-01 to 2021-22, despite some fluctuations. In 2001-02, there were 12026 enrolled students, but by 2021-22, the number had increased to 34243. The number of enrolled pupils significantly decreased from the 2019-20 to the 2020-21 academic year due to the COVID-19 pandemic, particularly affecting those who were greatly deprived of access to education in 2020-21. Again, the number of pupils enrolled in VCs has significantly decreased in the academic year 2022-23 due to the incorporation of VCs into mainstream learning since 2021-2022.

Table 2: Trends in Gender Wise Students' Enrolment at Vocational Education Courses during Two Decades

Year	Boys	Girls	Year	Boys	Girls
2001-2002	9455	8394	2011-2012	9972	16382

2002-2003	11038	11463	2012-2013	11158	16877
2003-2004	11613	12581	2013-2014	9388	17632
2004-2005	9439	11546	2014-2015	11840	20632
2005-2006	11693	11186	2015-2016	11299	19691
2006-2007	11329	10837	2016-2017	10827	18897
2007-2008	11732	11942	2017-2018	9808	17329
2008-2009	10450	11893	2018-2019	11090	18063
2009-2010	8562	10511	2019-2020	8301	12135
2010-2011	8902	13877	2020-2021	3663	3381

*Source: NIOS Annual Report (*2001-2002 to 2020-2021), Not available data at gender wise from 2021-22 to 2022-23.

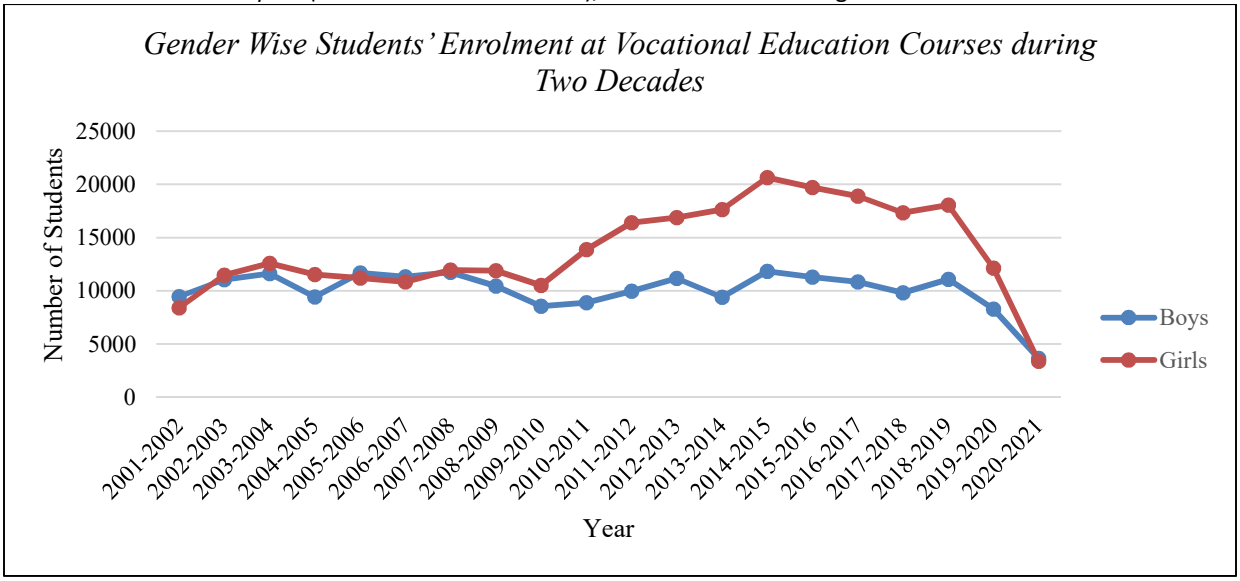
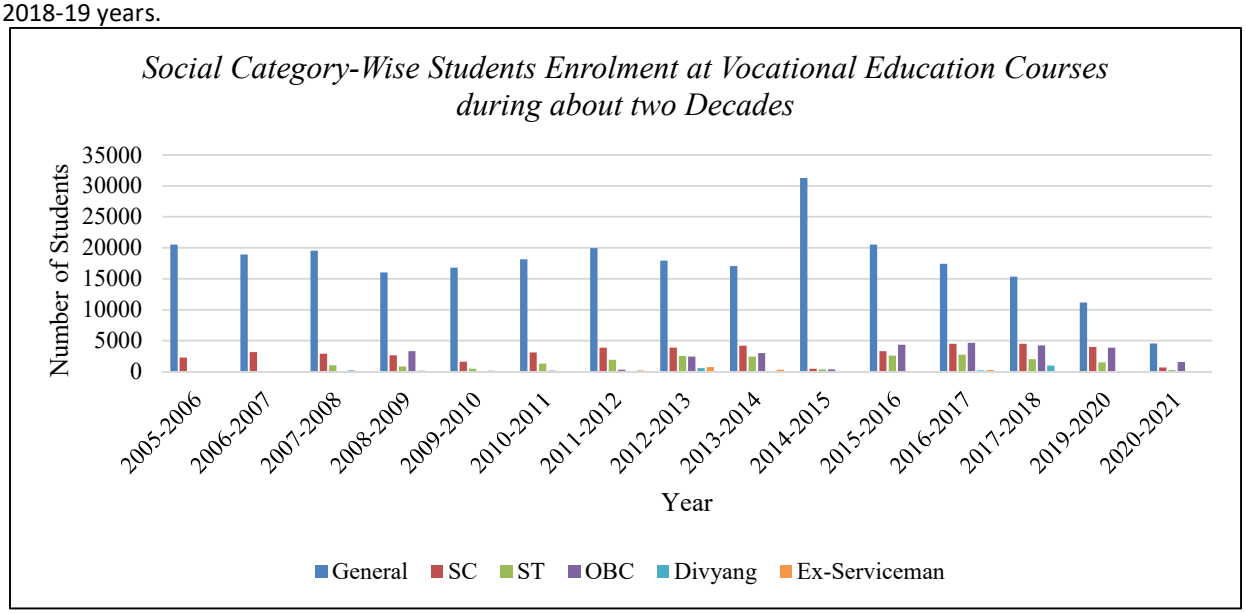


Table 2 and figure 2 depict that the number of girls enrolled in various vocational education courses is more than boys, and a remarkable enrollment rate has been observed, especially since 2010-11 to 2019-20. But in the years 2001-02, 2002-03, 2005-06 & 2020-21, the volume of boys' learners enrolled in different vocational education courses is more than girls' students. Again, in the year 2020-21 number of enrolled boys' and girls' students significantly fell due to the COVID-19 pandemic. So, despite various societal barriers, female students are pursuing vocational education and becoming self-reliant.

Table 3: Social Category-Wise Students Enrolment at Vocational Education Courses during about Two Decades

Year	General	SC	ST	OBC	Divyang	Ex-Serviceman
2005-2006	20541	2263	40	-	31	04
2006-2007	18920	3159	58	-	26	03
2007-2008	19545	2879	1024	-	190	36
2008-2009	16035	2637	799	3320	168	21
2009-2010	16823	1611	468	16	143	12
2010-2011	18123	3103	1292	147	94	20
2011-2012	19948	3871	1909	329	103	194
2012-2013	17961	3859	2514	2409	570	722
2013-2014	17057	4178	2429	2990	66	300
2014-2015	31297	447	379	338	06	05
2015-2016	20526	3324	2581	4349	113	97
2016-2017	17401	4472	2738	4654	182	247
2017-2018	15366	4483	2021	4248	989	30
2019-2020	11149	3954	1481	3852	-	-
2020-2021	4533	682	262	1567	-	-

*Source: NIOS Annual Report (*2005-2006 to 2020-2021), Not available data at category-wise 2001-02 to 2004-05 & 2018-19 years.



As per the social category-wise vocational education courses admission since the year 2005-06 to 2020-21 mentioned in the above table 3 and figure 3. We have noticed that highest number of students are enrolled in general category (31297) in 2014-15, whereas highest number of students are admitted in SC category (4483) and Divyang category (989) in 2017-18; again, highest volume of students is admitted in ST category (2738) and OBC category (4654) in 2016-17; highest volume of students is admitted in Ex-Serviceman category (722). Again, in the year 2020-21, number of enrolled different social categories has tremendously fallen due to the COVID-19 pandemic. Therefore, students from different social categories have made themselves self-reliant through various vocational education courses.

Navigating the Future Roadmaps

The NEP 2020 signifies a significant expansion of VE in the nation, as it requires that all educational institutes incorporate VE into their curricula. This would incorporate a substantial number of 'schools, colleges, and universities' as potential VET providers over the next decade, thereby making VET accessible to millions of learners. The several challenges that VET faces, along with the necessary future roadmaps to address these challenges, are outlined below:

Firstly, the new policy aims to address the societal hierarchy linked to vocational education (GoI, 2020, p.44). In this case, awareness programs can be organised to alter the prevailing perceptions and attitudes regarding vocational education. All secondary and high secondary institutions are to provide vocational experience to students from Grade VI onwards. For this, no budget provision has been made in the policy for infrastructure and recruitment of teachers.

Secondly, the new policy suggests incorporating vocational education with mainstream education (GoI, 2020, p. 44), emphasizing 'social inclusion, gender equality, and inclusive education'. In this regard, implementation can be skill-oriented activities from preschool through Class XII. Revamping curricula should be improving vocational knowledge and skills content, aligning courses with skill requirements, and establishing interdisciplinary links. Also, cultivating professional skills and attitudes can be done via apprenticeships and job-related instruction. There needs to be more emphasis on effective techniques and innovation by educators in the teaching-learning process. It is essential to secure private sector involvement and financing in vocational education and training.

Thirdly, the NEP proposes for introducing 'Lok Vidya' ('indigenous knowledge and skills') in schools through VE (GoI, 2020, p. 44). The policy does not provide any focus into how this will be implemented. However, internships for learners on indigenous practices might be organized by identifying local occupational sectors. Local specialists can be determined, and internship programs can be administered to pupils. In this case, collaborations between the community and industry are essential for acquiring vocational experience via informal internship programs.

Fourthly, the main target of vocational education through open school is the education of disadvantaged and marginalized groups. Therefore, it is essential to implement VET programs for marginalized, special groups, and

differently able people. Differently able people require specialized consideration in the design of vocational education courses, and their needs and integration must be adequately addressed.

Fifthly, one of the main challenges of implementing online VE through open school is the promotion of online and open vocational education. The GoI's SWAYAM platform offers only eight vocational programs as MOOCs, which is very negligible, whereas NIOS offers more than 100 vocational courses. Introducing more innovative pedagogical approaches and digital resources, including MOOCs, 'flipped learning and virtual learning' methods, must be used for students as well as to train teachers.

Lastly, assuring professional training is essential for cultivating high-quality vocational educators. In this context, the skills of vocational teachers can be enhanced by applying new pedagogical strategies for teaching and training. 'Pre-service training and short-term training' courses for the preparation of vocational teachers can be provided by the 'State Council of Educational Research and Training' and 'District Institutes of Educational Training' (DIETs) in blended modes (Pathak, n.d.). Furthermore, outside trainers and specialists from different fields ought to be engaged to conduct training for teachers at 'Cluster Resource Centres, Block Resource Centres, and DIETs' and promote innovation in teacher training through collaborations between vocational education and training institutions and industry or research organizations.

Conclusion

The open schooling system has been internationally acknowledged as a strong alternative to conventional education (UNESCO, 2002). The dropout rate following primary education in our country is significantly elevated, maybe attributable to economic and cultural factors. Therefore, it is essential to offer an option for significant and contextually pertinent education to these learners, enabling them to become self-sufficient. Vocational education can significantly enhance economic efforts. The new policy 2020 has emphasized VE and the professional development of educators to enhance the job capability and vocational skills of students at all stages (Pathak, n.d.). The main aim of the vocational education program is to provide vocational training to the children of school dropouts and to disadvantaged and marginalized groups by effectively using the capabilities of distance education mode (DEM). Since NIOS provides vocational education through its AVIs, it should offer continuous assistance, seamless advice, and strong advocacy to enhance the job abilities and vocational skills of learners. As per NEP-2020, by 2025, a minimum of 50 percent of students will have vocational experience through both school and post-secondary education (GoI, 2020, p. 44). This aligns with SDG 4.4 and would facilitate the realization of India's population dividend's maximum potential (ibid). Therefore, each AVI must be revamped and restructured to meet the requirements of the 21st century in relation to SDG 4.4. The new policy aims to address the societal hierarchy linked to VE and requires the gradual incorporation of VCs into the conventional schooling system. In this regard, awareness programmes need to be organised to change the prevailing perceptions and attitudes towards vocational education. The standard of VET is to be improved by identifying, planning, and developing VCs that align with the national norms and skill standards. The affiliation of VCs and the registration of providers would improve the standard and sustainability of VET programs, encompassing the processes of "teacher selection and recruitment, student selection, course delivery, assessment, and the awarding of qualifications to students". The management and administration of the VET process, together with the provision of learner support services, necessitate a robust capacity-building framework for stakeholders at all tiers, i.e., 'National, State, District, and Institutional'.

References

i. Barik, K. Enrolment Trend of Vocational Education Programmes in Open Schooling: A Study of NIOS, India. *COMOSA Journal of Open Schooling, 1*(1), 60-72.

ii. Bradley, J. (2019). *The Open Classroom – Distance Learning in Schools.* Routledge.

iii. Cuban, L. (2004). The open classroom. *Education Next, 4*(2), 69-71. https://www.educationnext.org/theopenclassroom/

iv. Dewal, O. S. (2001). Open Schooling. In J. S. Rajput, O. S. Dewal, C. H. K. Misra, & P. Chand (Ed.), *Experiences in School Education* (pp. 108-126). National Council of Educational Research and Training (NCERT).

v. Dewal, O. S. (2004). Open Schooling. In J. S. Rajput (Ed.), *Encyclopaedia of Indian Education* (Vol. 2, pp. 1256-1261). National Council of Educational Research and Training (NCERT).

vi. Gaba, A. K. (2006). Open schooling in India: development and effectiveness. Open Learning: *The Journal of Open, Distance and e-Learning, 12*(3), 43-49. https://doi.org/10.1080/0268051970120306

vii. GoI. (2020). *National Education Policy 2020*. Ministry of Education, Government of India.

viii. Jenkins, J., & Sadiman, A. S. (2000). *Open* schooling at basic level. In C. Yates, & J. Bradley (Ed.), *Basic Education at a Distance: World review of distance education and open learning* (pp. 205-226). Routledge Falmer.

ix. Jha, J., Ghatak, N., Minni, P., Rajagopal, S., & Mahendiran, S. (2020). *Open and Distance Learning in Secondary School Education in India Potentials and Limitations*. Routledge.

x. Latchem, C. (2018). *Open and Distance Non-formal Education in Developing Countries*. Springer.

xi. Pathak, R. K. (n.d.). *Reimagining Vocational Education and Skill-building*. https://www.education.gov.in/shikshakparv/docs/background_note_Reimagining_Vocational_Education_Skill_building.pdf

xii. Phillips, S. (2006). Exploring the Potential of Open Schooling. *Connections, 11* (1), 8-10.

xiii. Mukhopadhyay, M. (1994). Open Schooling: An Introduction. In M. Mukhopadhyay, & S. Philips (Ed.), *Open schooling: selected experiences* (pp. 1-8). The Commonwealth of Learning (COL).

xiv. NIOS. (2000-01 to 2022-23). *Annual report 2000-01 to 2022-23*. Noida: Govt. of India, National Institute of Open Schooling.

xv. NIOS. (2018). *Prospectus 2018 Vocational Education Courses*. Noida: Govt. of India, National Institute of Open Schooling.

xvi. Rajagopalan, T. (2011). *A Study of the Development of the State Open Schools (SOSs) in India*. Commonwealth of Learning.

xvii. Sharma, R. C. (2013). *Virtual Open Schooling in India: Feasibility Report*. Commonwealth Educational Media Centre for Asia (CEMCA).

xviii. Sarid, A., Boeve-de Pauw, J., Christodoulou, A., Doms, M., Gericke, N., Goldman, D., Reis, P., Veldkamp, A., Walan, S. & Knippels, M. C. P. J. (2025). Reconceptualizing open schooling: towards a multidimensional model of school openness, *Journal of Curriculum Studies, 57*(2), 227-245, https://doi.org/10.1080/00220272.2024.2392592

xix. UNESCO. (2002). *Open and Distance Learning Trends, Policy and Strategy Considerations*. UNESCO.

xx. Yates, C., & Tilson, T. (2000). Basic education at a distance: an introduction. In C. Chris Yates, & J. Bradley (Ed.), *Basic Education at a Distance: World review of distance education and open learning* (pp. 3-26). Routledge Falmer.