

Assessing the Status of Vocational Education under Samagra Shiksha: A Critical Analysis of Online Regional Consultative Meeting Outcomes

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Abstract

Vocational education is an important aspect of the overall education system in India and has been given renewed emphasis through the Samagra Shiksha initiative. This article critically analyses the implementation of vocational education under the Samagra Shiksha program with a focus on its impact on students, schools, and the economy. The study finds that while the initiative has led to an increase in the number of vocational courses offered in schools, there are still major gaps in the quality of education and lack of support for students in finding employment after graduation. Additionally, the article highlights the need for more effective measures to improve the delivery and outcomes of vocational education in the country. Overall, the article provides valuable insights for policy-makers, educators, and stakeholders in the field of vocational education.

Keyword: Vocational Education, Samagra Shiksha, School Education, National Education Policy

Introduction

The knowledge and digital landscape of the world is experiencing swift transformations. Significant scientific and technological progressions, such as the emergence of big data, machine learning, and artificial intelligence, could potentially replace numerous unskilled jobs with machines (Behera, B., & Gaur, M. 2022). Meanwhile, there will be a growing need for a competent workforce, specifically with expertise in mathematics, computer science, and data science, along with interdisciplinary proficiencies encompassing the sciences, social sciences, and humanities (Hammer, A., Keles, J. Y., & Olsen, W. 2022).

The Pandit Sunderlal Sharma Central Institute of Vocational Education in Bhopal (PSSCIVE 2023) hosts Regional and National Consultative Meetings on Vocationalisation of School Education every year under *Samagra Shiksha*. These gatherings serve to assess the progress of Vocationalisation of School Education and provide guidance to States/UTs on effective implementation of the program (*Samagra Shiksha* 2023). State functionaries and representatives from various skill development organizations and institutions are invited to propose action points for effective integration of vocational education (VE) in schools. Discussions and interactive sessions are held to suggest specific strategies for implementing pre-vocational education for Classes VI to VIII and vocational education programs for Classes IX to XII.

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The Regional Consultative Meeting (RCM) on Vocational Education in Schools under *Samagra Shiksha* (PAB Programme for South, East and North East Region) was conducted online on January 23rd and 24th, 2023 (RCM 2023). Over 70 officials and professionals attended this meeting and deliberated on NEP 2020, *Samagra Shiksha* Scheme, National Credit Framework (NCrF), new initiatives taken by PSSCIVE, such as e-learning material development for employability skills, curricula and textbooks for vocational skills, and videos related to vocational curriculum for various job roles. They also discussed the best practices adopted by States/UTs in vocational education, key concerns, and recommendations for effective implementation of vocational education in schools.

The National Education Policy (NEP) 2020

The National Education Policy (NEP) 2020 is a comprehensive framework for the development of education in India, which aims to transform the country's education system by focussing on access, equity, quality, affordability, and accountability (NEP 2020). The policy emphasizes the integration of technology and vocational education, and proposes proposes significant changes in the structure of education, including the introduction of a new pedagogical framework, a four-year undergraduate program, and a common entrance exam for universities. It also emphasizes the importance of multi-disciplinary education, mother-tongue as a medium of instruction, and the development of critical thinking and creativity among students.

The National Education Policy (NEP) 2020 in India emphasizes the need for a shift towards vocational education and skill-based training, along with academic education. The policy aims to create a flexible, multi-disciplinary and holistic education system that focuses on experiential learning and prepares students for the workforce. The NEP 2020 recognizes vocational education as an essential component of education and aims to integrate it with academic education to provide a more comprehensive learning experience. The policy envisions the establishment of vocational education institutions, apprenticeships, and vocational courses in schools and higher education institutions, to enhance the employability of students and promote economic growth (Verma and Kumar, 2021). NEP 2020 provides a comprehensive framework to strengthen vocational education in India and improve the employability of students. The policy aims to bridge the skill gap in the workforce and promote entrepreneurship and innovation, which will contribute to the economic development of the country.

Samagra Shiksha

Samagra Shiksha is a flagship program of the Indian government that aims to provide quality education to all children from pre-school to secondary level (Samagra Shiksha, 2023). Under this program, vocational education is given significant importance, and various initiatives have been taken to enhance the vocational education system. The program focuses on the integration of vocational education in schools, providing flexible curricula, and developing partnerships with industries to provide practical training and work experience to students (Samal, 2021). The program also recognizes the importance of recognizing prior learning and upskilling opportunities to improve the employability of individuals. Overall, the Samagra Shiksha program is committed to strengthening the vocational education system in India and preparing students for the workforce of the future (Kumar, 2020).

National Credit Framework (NCrF)

The National Education Policy 2020 aims to make education more comprehensive and effective by integrating general academic education, vocational education, and experiential learning. To achieve this, a national credit accumulation and transfer system called the National Credit Framework (NCrF) has been developed by National Council of Vocational Education and Training (NCVET) in India. The NCrF is a comprehensive framework that covers elementary, school, higher, and vocational education, integrating learning on all dimensions. It aims to seamlessly integrate credits earned through school education, highereducation, and vocational and skill education (NCrF, 2023). The NCrF encompasses qualification frameworks for higher education, vocational and skill education, and school education, ensuring academic equivalence between general and vocational education. The NCrF will promote flexibility, mobility, and academic equivalence, enabling students to progress and intermingle between school, higher education, vocational education, and experiential learning. It provides opportunities for students to catch up, re-enter, accelerate learning, and recognize prior learning. The NCrF supports multidisciplinary education, imaginative curricular structures, and creative combinations of subjects and disciplines, recognizing no hard separation between different areas of learning.

New initiatives by PSSCIVE

PSS Central Institute of Vocational Education (PSSCIVE), Bhopal develops curricula based on Qualification Packs (QP) of Sector Skill Councils (SSC) considering all National Occupational Standards (NOS) and, aligned with National Skills Qualification Framework (NSQF). It develops vocational textbooks, digital resources and various guidelines documents. It organizes orientation program for the key functionaries and training of the vocational teachers. It has initiated work on development of 75 Virtual Labs in vocational education. It also has started work on development of curricula and text books on 25 new futuristic job roles. Modules for National Initiative for School Heads' and Teachers' Holistic Advancement (NISHTHA) are also being developed. It offers an innovative Diploma in Vocational Education and Training (DVET) programme for aspiring vocational teachers (PSSCIVE, 2023).

Best Practices in Vocational Education

The best practices in vocational education emerged from the Regional Consultative Meeting on Vocational Education in Schools under Samagra Shiksha held in PSSCIVE, Bhopal (RCM, 2023).

In Karnataka, Skill on Wheel program has been introduced for creating awareness on vocational education. Project Innovation has been launched to introduce local skills and 12 resource laboratories have been established with the help of Vocational Training Providers and CSIR for implementation of vocational education. Skill Hub Initiative has been started to enable sharing of infrastructure in providing skills and well-defined pathways for students to continue with their chosen academic and vocational pursuits. The Automotive labs in the schools have been provided with the old government vehicles for providing the students with hands-on training and CSIR for implementation of vocational education. Skill Hub Initiative has been started to enable sharing of infrastructure in providing skills and well-defined pathways for students to continue with their chosen academic and vocational pursuits. The Automotive labs in the schools have been provided with the old government vehicles for providing the students with hands-on training.

Career guidance and guidance for vertical mobility are being provided to the students who opted vocational subjects. Students are being provided internships through Vindhya Info Media and their registration is also being done on the portal of National Apprenticeship Program Scheme (NAPS) for enrolling them in apprenticeship training after passing the board exams.

In Telangana, SCERT is working on implementation of Pre-vocational Education from grades 6-8 in schools to give exposure to students about different vocations at an early stage. Hub and Spoke Model has also been implemented. Career Progression cell has been established in the schools. Gender sensitization about different vocations among the students is being done in schools. Furthermore, standardizing all the deliverables across all the vocational training providers and streamlining all the monitoring mechanisms of the entire program are being done.

In Assam, vocational subjects have only been introduced in grades 11 and 12. However, students who take up vocational subjects get preference in admission in Engineering colleges. State Council of Educational Research and Training (SCERT) is working on introducing pre-vocational education from grades 6-8 in schools.

In Meghalaya, Skill Hub Initiative has been introduced for out-of-school children. Hub and Spoke Model has been implemented to provide skill training in one Hub school which has proper infrastructure and trainers to students of multiple schools in the district which do not have adequate infrastructure. Pre-vocational Education has been implemented in the schools and innovative projects such as drone technology are being conducted.

In Nagaland, besides government schools, private schools have also introduced vocational education without any aid from the government.

In Sikkim, modules on 'Organic Farming' for pre-vocational education from grades 6-8 and Teachers' Handbook for Organic Agriculture have been developed which will be launched from this year.

In West Bengal, WBSCTVE&SD (Unified Council under TET&SD Department of Government of West Bengal) has been recognised as certification body under Ministry of Skill Development & Entrepreneurship. It has been empowered to conduct skill assessment of students from Class 9th to 12th appearing in Board and Council Examination, 2023.

Academic institutes like NITTTR, Kolkata, Institute of Hotel Management, Kolkata, Government College of Textile Engineering, Serampore, CSTARI, Kolkata and Government ITI, Gariahat, Kolkata works for intervention of different academic activities as per the scheme. During the pandemic, 1010 e-learning materials (ELM) were shared with students. 3084 online and physical guest lectures were conducted by different training providers. 2252 virtual industry visit along with physical field visit have been organized by different training providers. An initiative 'Model from Home' has been taken up by NSQF cell, Directorate of Vocational Education and Training in which students were motivated to prepare innovative models at home during lockdown period. Department of TET&SD has been awarded with the SKOCH Silver Award for the project of E-learning (Response to COVID).

Key concerns in implementation of vocational education

The key concerns which the states are facing in implementation of vocational education in

schools are as follows (RCM, 2023):

Change of job roles- Job roles such as Electronics and MFSC have been discontinued in some states.

Availability of curriculum and textbooks - Textbooks of few job roles have not reached some of the states yet which makes it difficult for the teachers and the students to continue pursuing the vocational subjects.

Use of regional languages - The textbooks that are being provided to the students of the government schools are in English which makes it bit difficult for the students to understand the content. The vocational teachers translate the content while teaching still it would be easy for the students to gain understanding of the vocational subjects if the textbooks were in regional languages. It would also increase the enrolment of the students in vocational courses.

Availability for qualified trainers, low salary and continuation in service - The vocational teachers in most of the states except Haryana and Assam were recruited in contractual mode which makes it difficult for the states to get qualified and trained vocational teachers. It also makes the vocational teachers insecure about their jobs. The salary of the vocational teachers is also low and there is no uniformity in the salary structure across states.

Lack of resource persons for training of teachers - Continuous Professional Development for the vocational teachers is needed as they come from industry background and do not possess pre-service training in teaching. PSSCIVE provides training to the vocational teachers pan India however some states are unable to get resource persons to provide training to the vocational teachers at state level.

Blue-print of Lab set-up and funds - The blue-print of the vocational lab set-up is not available as it depends entirely on the states to frame state specific guidelines. The funds for setting up the vocational labs in schools get delayed. These create difficulties in conducting practical classes of vocational subjects for the students.

Certifying board for Puducherry - There are three certifying boards in Puducherry namely Tamil Nadu, Andhra Pradesh and Kerala which makes it difficult for the union territory to implement vocational education as Tamil Nadu Board discontinued vocational education in schools.

Introduction of Pre-Vocational Education - Some of the states have not introduced pre-vocational education in schools.

Vertical Mobility from school to higher education - In most of the states the colleges do not have NSQF aligned vocational courses so that the students who pass out from schools can continue with the vocational subject they opted in school at higher level.

Skill mapping needs to be done by the states - States should conduct skill mapping to find out the demand and supply of a particular sector so that region specific job roles can be introduced in the schools. It would also help in introducing local vocations in schools.

Recommendations for implementation of vocational education in schools

Based on the key concerns of the states in implementing vocational education in schools under Samagra Shiksha the following recommendations are proposed (RCM, 2023):

Introduction of Vocational Education - States and Union Territories such as Tamil Nadu and Lakshadweep should implement the centrally sponsored scheme of vocationalisation of secondary education.

Funds under Samagra Shiksha - Funds for introducing vocational courses (classroom & lab) is being given by Ministry of Education under Samagra Shiksha Scheme. However, if they need additional funds they can generate through partnership with industry, NGOs and Corporate Social Responsibility.

Sectors and Job Roles - Frequent change and termination of job roles happened due to administrative and policy changes. States and Union Territories should conduct skill mapping to find out the relevant local crafts or vocations which can be introduced in schools.

Curricula and Text Books - PSSCIVE has prepared curricula and textbooks on 152 job roles which are available on the website and some are in the process of printing at National Council of Educational Research and Training (NCERT). Currently, PSSCIVE is in the process of developing curriculum and textbooks on 25 new futuristic job roles. It is advised that local resources and web based resources may also be used. For language issues, appropriate translation tool which are available on the internet may be utilized (Thakur, 2019).

Laboratory Set-up - Blue print of Laboratory set up given in the Participants Handbook developed by Sector Skill Councils may be appropriately used. This information may be obtained from the respective Sector Skill Councils websites. For Lab facility, external funding may be sought through various available sources and facilities can be shared through Hub & Spoke Model (Sinha, 2020).

*Pre-Vocational Education from grades 6th to 8*th - Sikkim has developed pre-vocational education module on 'Organic Farming' and developed Teachers Handbook for Organic Agriculture. Pre-vocational Education will start from this year. Telangana is implementing pre-vocational education through their SCERT. However, other participating states are yet to introduce pre-vocational education.

Vocational Education from grades 9th to 12th in schools - It is advised that proper skill mapping to be undertaken at cluster level and accordingly job roles are to be offered with wide choice for the student to choose as per his interest (Jain, 2019). Futuristic job roles may be given due priority. National Education Policy 2020 emphasized on having one vocational course for every student which will be on par with other subjects (Nanda, 2019). Schools should network with industries for field visits, on-the-job training and placement opportunities. Suitable guidance be given on vertical mobility for moving into higher education. In Assam, vocational students get benefit in admission in Engineering colleges. In Haryana, lateral entry benefit in Higher Education is given for vocational students.

Student Support System - Telangana has set up Career Progression Cell for offering Guidance and Support for students. Karnataka is also having such system. It is suggested other states may establish student support services for career guidance and counselling, placement and job fair. PSSCIVE has developed Vocational Interest Inventory and working on Skill Based Aptitude Test which the states can utilize appropriately.

Conclusion

In conclusion, *Samagra Shiksha* has been instrumental in promoting Vocational Education in India by providing various opportunities to students and providing them with the India by providing various opportunities to students and providing them with the necessary skills to succeed in the competitive job market. The scheme has also helped in improving the quality of education and making it more inclusive by reaching out to the marginalized sections of the society. However, the implementation of the scheme still needs to be improved and the government needs to take active steps in providing proper nfrastructure and resources to the schools. The vocational education system in India has a long way to go, but Samagra Shiksha is definitely a step in the right direction.

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