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| **Title: Synergizing vocationalization in School Education: Transforming Education and Empowering Individuals.** |
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**1.The context**

The concept of vocationalization is not explicitly mentioned in the ancient scriptures of India. However, there are some references to the importance of education and training in various places. In Arthashastra, a treatise on statecraft and economics written by Kautilya in the 4th century BCE, mentions the importance of training for different occupations. Here is the passage from the Arthashastra where vocationalization is mentioned**:"अर्थशास्त्रे चतुर्वर्गफलप्राप्तिहेतुः कर्मसु निपुणता विधीयते।"**This passage is from the 12th chapter of the Arthashastra, which is titled "Dharma". It states that vocational training is essential for the attainment of the four goals of life (dharma, artha, kama, and moksha). The Upanishads, a collection of philosophical texts dating from the 7th to 5th centuries BCE, also emphasize the importance of knowledge and skills. It states that a person should acquire knowledge and skills so that they can live a meaningful and fulfilling life. The Manusmriti also emphasized the importance of vocation*"The wise man should learn a trade or profession so that he can support himself and his family." (Manusmriti)1*

These ancient scriptures suggest that the concept of vocationalization was not alien to the ancient Indian mind. However, it was not seen as a separate stream of education, but rather as an integral part of the education system. If we talk about the Constitution the concept of "vocationalization of education" is not explicitly mentioned in a single specific article of the o Constitution of India. However, the Directive Principles of State Policy, especially Articles 41, 45, and 46, reflect the broader ideals and principles that can be associated with vocational education and skill development. These articles emphasize the importance of education, work, and economic upliftment of various sections of society.

After Indian independence much of the importance is given to vocationalization in almost all the major education commission. The Kothari Commission report talks about vocationalization in paragraph 4.12, "*Vocationalisation of education should be an integral part of the educational process at all stages. It should not be regarded as a separate stream of education. There should be a variety of vocational courses available to students at different levels, so that they can choose the courses that are most suited to their interests and aptitude. Vocational courses should be developed in consultation with industry and other employers, so that they are relevant to the needs of the economy. The government should provide financial support for the development and implementation of vocational education*."

1. <https://www.hinduismfacts.org/hindu-scriptures-and-holy-books/manusmriti/chapter-vii/>

The term "vocationalization" is used in the National Education Policy (NPE) 1986 in paragraph 6.2.2, which states*: "The need for vocationalization of education at different levels has been emphasized. This would involve introduction of a variety of courses, both general and vocational, at the secondary stage, with provision for easy transfer from one stream to another. At the higher secondary stage, there should be greater flexibility in the choice of courses, so that students can opt for studies leading to direct employment or to further education."*

The Programme of Action (POA) 1992 further elaborates on the concept of vocationalization, stating in paragraph 4.3.2: *"Vocationalization of education implies the introduction of a variety of courses, both general and vocational, at different stages of education, so as to enable the students to acquire the knowledge, skills and attitudes required for gainful employment and for self-employment.*" The POA 1992 also lays down the following guidelines for the implementation of vocationalization.The Kothari Commission, the National Education Policy -1986, and the Programme of Action (POA) 1992 have all stressed the need for vocationalization in education.

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The National Education Policy (NEP) -2020 was incremental in terms by introducing the concept of credit framework and skills. NEP-2020 mentions credit framework and skilling in **Para 12.3.3**, which states: "*A National Credit Framework for Skills (NCFS) will be developed to facilitate the accumulation and transfer of credits across different skilling and education institutions, both formal and informal. The NCFS will be aligned with the National Education Policy (NEP) 2020 and the National Skills Qualification Framework (NSQF). It will be based on the principles of modularity, flexibility, and portability*. "

NEP for the first time provided a broader concept of credit and skilling which is indispensable for young nation like India where median age is 28.2 years. Today, India is one of the youngest nations in the world with more than 62% of its population in the working-age group (15-59 years), and over 54% of its total population below 25 years of age. Its population pyramid is expected to bulge across the 15–59 age groups over the next decade. This is a huge opportunity and at the same time poses a formidable challenge (Draft NCrF,Page-17).According to UNFPA Report,2020 India has entered into the demographic dividend period for 37 years, starting from 2018 and lasting till 2055.The working age population will reach its highest level at 69% by 2030.The dependency ratio is projected to reach its lowest at 31% by 2030.In retrospect India need robust system in place to caters the needs of young population which spans across 1.489 million Schools ,1113 universities,43,796 colleges, and 11,296 standalone institutions including 3,781 polytechnics.

As a result National Credit Framework (NCrF) was developed by a High Level Committee constituted by the Government of India with members from the University Grants Commission (UGC), All India Council for Technical Education (AICTE), National Council for Vocational Education and Training (NCVET), National Institute of Open Schooling (NIOS), Central Board of Secondary Education (CBSE), National Council of Education Research and Training(NCERT), Ministry of Education(MoE), and Ministry of Skill Development and Entrepreneurship(MSDE).

**2. The National Credit Framework (NCrF)**

The NCrF is an enabling framework and may not be construed as a regulation (NCrF,Page-8)**.** NCrF is a comprehensive framework that integrates learning across school education, higher education and vocational education & training. It provides for creditisation of all learning, including academics, vocational skills and experiential learning. NCrF also enables credit transfer between different education streams and institutions. The implementation of NCrF would be a game changer in making the India “world skill capital”. It would remove the distinction between general and vocational education, and ensure flexibility and mobility for students. NCrF would also open numerous options for further progression of students and inter-mingling of school & higher education with vocational education & experiential learning. The key features of NCrF are:

* It is aligned with the National Education Policy 2020 and ensures quality and accountability in long run.
* It is a single credit framework for all levels of education.
* It provides for creditisation of all learning, including academics, vocational skills, and experiential learning.
* It enables credit transfer between different education streams and institutions.

**The advantage of National Credit Framework (NCrF).**

* It will remove the dichotomy between general and vocational education.
* Enables assignment, accumulation, storage, transfer and redemptions of credits..
* Allows multidisciplinary and holistic education through learning outcome-based approach.
* It will promote a defined trajectory from School education to higher education.
* It will help in overcoming the constraints of physical infrastructure & scalability.
* It will enhance access, equity, and affordability in education.
* It will promote internationalization of education.
* Supports existing qualification frameworks-NHEQF,NSQF and NCF.

The implementation of NCrF is a complex task that will require the collaboration of all stakeholders. The benefits of NCrF are immense and it has the potential to transform the education system in India but will require designated equivalence within and amongst institutions, universities, boards, and other regulating bodies. NCrF is complex framework in terms of pan India acceptability and implementation ability of all the institutions of School and Higher education. Some individual might find out that it is not able to cater their specific individual needs. Many of the institution may lack the human resource and technical know- how. The exiting education system require some more time for alignment with new system. Moreover, designated technical architecture is also required to provide the foundation on which it will stand.

The national Credit Framework can be operationalized by formulating relevant Standard Operating Procedures (SOPs) and guidelines. The SOPs for credit assignment, credit transfer and redemption, credit validation and expiry, creditisation of digital/online learning is required which should be acceptable to all host institutions with clear mandate and standardization. Detailed guidelines for RPL(recognition of prior learning),on demand assessment and mainstreaming of students into educational ecosystem, SOPs for developing flexible curricular structures, establishing equivalence for a level, and transfer mechanism indicating entry eligibility may be required.

Thus, the implementation of NCrF should be carefully considered, considering the complexity of understanding it, its inflexibility in terms of learning trajectories, the cost of implementation and maintenance, the lack of international and national standardization, and the misalignment between the needs of institutions, individuals, regulating authorities, and industries.

**3.An overview of existing Frame for vocational and skill Education.**

The use of skill first got the permeance in 12th five -year plan (2012-17). It was mentioned that “*The Government will focus on promoting skill development and entrepreneurship as a key driver of economic growth and social transformation. The Government will invest in developing a skilled workforce through a variety of measures, including vocational training, apprenticeships, and entrepreneurship training (12th Five-year Plan, Para-3.3)*.” As a successor to this Skill Development and Entrepreneurship 2015 was formulated as it was imperative to respond to the demand of skill ecosystem both national and international. Moreover, National Skill Development Policy,2009 itself advocates for review of policy every five years as a result National Policy for Skill Development and Entrepreneurship 2015 supersedes the policy of 2009.It was more comprehensive and futuristic in nature. The NSD-2009 envisaged NVQF(National Vocational Qualification Framework) whereas 2015 policy provided for NSQF(National Skills Qualification Framework).The latter policy advocated for innovations and branding as well. NVQF latter assimilated into NSQF.NSQF was based on education and competency-based framework. “…*NSQF organizes qualifications according to a series of levels of knowledge, skills and aptitude. These levels, graded from one to ten, are defined in terms of learning outcomes which the learner must possess regardless of whether they were acquired through formal, non-formal or informal learning (*[*https://www.nielit.gov.in/content/nsqf)*](https://www.nielit.gov.in/content/nsqf))*”.*

At this point National Credit Framework (NCrF) and NSQF show marked similarity by acting as competency-based skill and quality assurance framework that calls for multiple pathways both horizontal as well as vertical. Here, one learning level is linked to another higher level.

**4.Vocationalization in National curriculum framework-School Education.**

The National Curriculum for School Education (NCF-SE) has initiated much debate for Classes X and XII, which are two classes for public examinations and generate much more public dialogue and discourse. The question arises whether we have any designated system build upon for the assessment for vocational education? How we are going to equip our teachers and institution for that? These are question which need more focussed attention.

It is interesting to analyze NCF-SE in terms of vocationalization at each level and the systemic changes warranted by the new curriculum framework. The word "vocational" is used 234 times in NCF-SE, which amply demonstrates the vitality of the concept of skill and the extension of learning in a real-life context. The vocationalization is something akin to attaining practical competencies a super set of learning outcome. The framework advocates for gainful employment and entrepreneurship, which paves the way for the futuristic accomplishment of students. In the larger objective of vocationalization is creating capacities, knowledge, and relevant values amongst students. NCF-SE categorically emphasized that capacities are broader, deeper, and more complex than skills. Skills can be considered as a subset of capacities. Vocationalization is also about knowledge base and values. The NCF-SE uses **‘forms of work’** as a guiding concept for designing the curriculum. Productive work at its most fundamental level can be divided into three categories – work with life forms, work with materials and machines, and work on providing human services (NCF-SE, Page-446). NCF-SE succinctly put that **vocational Education finds its own curricular space and Learning Standards (NCF-SE, para-1.4.3)** in whole scheme of things. The bagless day find its mention in NEP-2020 for all the students of class 6-8. All students will participate in a 10-day bagless period during Grades 6-8 where they intern with local vocational experts, such as carpenters, gardeners, potters, artists. Similar internship opportunities to learn vocational subjects may be made available to students throughout Grades 6-12, including holiday periods.’ (NEP 2020, 4.26).The bagless day may be starting point for the vocational activities for all middle school children. The NCF does not use the word prevocational at middle stage because students will be exposed to different vocation and develop various capacities and knowledge. NCF-SE does not limit the concept to secondary education, it encompasses the whole gamut from preparatory to secondary stages. It is thought as of incremental in nature and organic in its approaches. NCF-SE also talks about the alignments with NSQF. In middle stages broad capacities and values should be developed.

In the Middle Stage, students engage in different forms of work to learn a range of common capacities, knowledge bases, and values that form the basis for later specialisation. The objective is to make sense of the place of vocations in the world of work and inculcate ‘working with hands’ as an integral part of the vocation. (NCF-SE, Page-454). Where as in secondary Stage, students will delve deep into few vocations involving rigorous practice and field-based exposure. The students at this stage will distinguish between effective and non-effective practices and capable of producing fine product/services. This stage will align with at least NSQF level 1 and 2. In senior secondary student will further specialise in chosen vocation. This stage will align with the requirement of at least of NSQF level 3 and 4.The vocational education should adhere to the principle of age-appropriateness , local context and should be inclusive in nature. The specialised agencies such as the National Association for the Blind (NAB), National Institute for Visually Handicapped (NIVH), and other institutions to design and customise Vocational Education courses across Stages of school education can be ensured by NCERT. A similar approach can be done for placing students for employment.

**5.Challenges faced for vocationalization.**

The current teacher education programme does not prepare future teachers for taking the role of mentor for students in the field of vocational education. In middle stage the teacher can manage without having formal training with the help of instructors, but at secondary and senior secondary stage its call for specific professional requirement/specialisation aligned with NSQF. The lack of conducive space and material for vocational education in schools and in close vicinity also creates a plethora of problems. The skill-hub in the school is really needed at this juncture to make vocationalization a living reality in India. There is a limited mobility between skill, education and vocational education. The issue of interoperability is huge and mechanism developed are in nascent stage. The concept of vocationalization is rooted in India but unfortunately the public perception has not changed much. The more pronounced view that vocationalization is the second best is still prevalent in education and social system. The present education system promotes rote learning and give little importance to practical and hands-on-skills. As the practical aspect of education is not promoted which largely manifest into huge drop out rate at secondary stages. The rudimentary vocationalization practiced in School system are not able to capture the imagination of Students which translate into disconnect between industries needs and skill set possessed by students. All these factors juxtaposed to create a semblance of potential skill crisis depending on how labor is distributed across different roles. India could have foregone 2.3% of its GDP growth if the skill crisis was not addressed. Therefore, it is imperative to plug the challenges of the conventional education system and infusing skill-based curriculum is the need of the hour. The integration of skills should be done in every subject, the vocationalization should be more aspirational in nature, and lifelong learning and skill recognition in the context of future of work should be strengthened. The heutagogy and peeragogy should be harnessed for amplification of vocationalization in School Education. All the academic boards/boards of examination should be encouraged to acts as awarding and assessing bodies for assessment and certification for vocational education.

We can sincerely hope that India will become the skill-capital of world with change of mindset, pedagogic support, assessment practices tailored to new approaches, and revamped teacher education programme.

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