

Establishment of Skills Development Centers:

Given the high importance of given by government of India to “Make in India”, the ‘Skill India’ mission needs to be vigorously pursued by the state government. For this purpose, government may consider a policy decision to establish a Skill Development Center in all districts to demonstrate the high priority given to this sector.



Each Skills Development Center may have specially designed courses for the following may be offered:

- a. For uneducated stream
- b. For school dropouts
- c. For 10th standard and/or 12th standard (PUC) qualified students
- d. For graduates – incubation centers, venture capital, self-employment channels,
- e. Civil Services Training Academy (by experts trained by Rao's Study Circle, New Delhi and such reputed institutes)
- f. Special training programmes for Divyanga (disabled)
- g. Disaster management skills

In addition, the Skill Development Center may also provide the following services :

- a. Language empowerment through a Center for International Languages
- b. Enhanced employment opportunities through specially designed diploma and undergraduate degree courses.
- c. Novel student support systems.
- d. Modern Teaching - Learning methods ; bilingual and pedagogy as per NEP recommendations
- e. Education Technology including online education training for teachers - Teachers Academy
- d. Sports Academy

(for a detailed account of the above, please see Recommendation 6 of this report)

Relevance to NEP:

Skill is a generic/umbrella term, encompassing almost all aspects of education and beyond; in its simplistic definition skill means capacity to perform a particular task. In other words there are as many skills as there are tasks. This definition begs the question that which are the 'skills set' to be chosen within the NEP framework to achieve the objective of holistic education, preparing a student for the challenges of 21st century?

Skills selected by NEP are contextual and stage specific, spanning across the entire spectrum of education, from the 3 years of pre-schooling, primary education (5+3+3), higher education (UG, PG & Research Degree), all supported by mentoring. For example, “NEP is based on the principle that education must develop not only cognitive skills - both 'foundational skills' of literacy and numeracy and 'higher-order' cognitive skills such as critical thinking and problem solving – but also social and emotional skills (soft skills) - including cultural awareness and empathy, perseverance and grit, teamwork, leadership, communication, among others.”

Thus, the nature of the skills imparted unfolds in complexity corresponding to the levels of education through which the student progresses. The progression is described as “experiential and joyful” to the student.

It is noteworthy that this bold conceptualization of transformational reforms in education (comparable to a disruptive technology which sweeps away an existing system with innovative reinvention (like e-commerce for example), ambitiously introduces exposure to skills at early stages of primary education.

Along the road to higher education and beyond, NEP envisages imparting skills related to learning, languages, writing, communication, social leadership and appropriate professional skills for teachers, medical practice, technologists, legal practice, nursing, healthcare and other professional education including adult education and vocational education. Some of the proposed courses are to be offered in Online Distance Learning (ODL) mode.

The entire process is made student centric as never before. It is envisaged that the full benefits of holistic development of the student would flow under the guidance of mentors, at all levels of education.

A bird's eye view of the policy reveals that a well thought over human resource strategy is being put in place to prepare a skilled and professional workforce to build a vibrant India.

Related quotes given below illustrate the above very lucidly:

Section: 0.6.

This Policy proposes revision and revamping of all aspects of the education structure, including its regulation and governance, to create a new system that is aligned with the aspirational goals of 21st century education, while remaining consistent with India's traditions and value systems.

Section: 4.6.

The key overall thrust of curriculum and pedagogy reform across all stages will be to move the education system towards real understanding and learning how to learn - and away from the culture of rote learning as is present today.

The goal will be to create holistic and well-rounded individuals equipped with key 21st century skills. All aspects of curriculum and pedagogy will be reoriented and revamped to attain these critical goals.

Section: 4.10.

All languages, from the Foundational Stage onwards, will be taught in an enjoyable and interactive style, with plenty of interactive conversation, and with plenty of early reading and subsequently writing in the mother tongue in the early years – with skills developed for reading and writing in the other two languages in Grade 3 and beyond.

All language learning will aim to be experiential and enhanced through art, such as music, poetry, and theatre.

There will be a major effort from both the Central and State governments to invest in large numbers of language teachers in all regional languages around the country, and in particular all Schedule 8 languages.

States from different regions of India, may enter bilateral agreements to hire teachers in large numbers from each other, to satisfy the three-language formula in their respective states, and also to encourage the study of Indian languages across the country.

Section: 4.31.

Transforming assessment for student development

The aim of assessment in the culture of our schooling system will shift from one that primarily tests rote memorisation skills to one that is more formative, is more competency based, promotes learning and development for our students, and tests higher-order skills, such as analysis, critical thinking, and conceptual clarity.

Section: 4.36.

All State School examinations in Grades 3, 5, and 8 in addition to Board Examinations in Grades 10 and 12 would test achievement of learning outcomes through assessment of core concepts and knowledge from the national and local

curricula, along with relevant higher-order skills and application of knowledge in real-life situations, rather than rote memorisation.

The Grade 3 examination, in particular, would test basic literacy, numeracy, and other foundational skills. The results of the State School examinations will be used only for developmental purposes of the school education system - including for public disclosure by schools of their overall (and anonymized) student outcomes, and for continuous monitoring and improvement of the schooling system.

Section:5.1

The quality of training, recruitment, deployment, service conditions and empowerment of teachers is not where it should be, and consequently, the quality and motivation of teachers does not reach the standards where it could be.

Section: 5.16

Leaders such as school principals and school complex leaders will have similar modular leadership/management workshops and online development opportunities and platforms to continuously improve their own leadership and management skills, and so that they too may share best practices with each other.

Section 5.21: Special educators

There is an urgent need for additional special educators for certain areas of school education. Some examples of such specialist requirements include subject teaching for children with disabilities / Divyang children at the Middle and Secondary school level, including teaching for specific learning disabilities. Such teachers would require not only subject-teaching knowledge and understanding of subject-related aims of education, but also the relevant skills for and understanding of such special requirements of children. Such areas could be developed as secondary specialisations for subject teachers or generalist teachers, during or after pre-service teacher preparation.

They will be offered as certificate courses, in the pre-service as well as in-service mode, either full time or as part-time/blended courses - again, necessarily, at multidisciplinary colleges or universities.

Section: 11. Towards a More Holistic Education

11.1. India has a long tradition of holistic and multidisciplinary learning in the 'liberal arts', from universities, such as Takshashila and Nalanda to the extensive literatures of India combining subjects across fields. Ancient Indian literary works like Banabhatta's Kadambari described a good education as knowledge of the 64 Kalas or arts; and among these 64 'arts' were included subjects such as singing and painting, but also more 'scientific' fields, such as chemistry and mathematics, more 'vocational' fields, such as carpentry and clothes-making, more 'professional' fields, such as medicine and engineering, as well as 'soft skills', such as communication, discussion, and debate.

Sections:16: Vocational education

The 12th Five-Year Plan (2012–2017) estimated that only a very small percentage of the Indian workforce in the age group of 19–24 (less than 5%) received formal vocational education; this may be compared to other countries such as the USA where the number is 52%, Germany 75%, and South Korea as high as 96%. These numbers only underline the urgency of the need to hasten the spread of vocational education in India.

Some of the reasons for this include the fact that vocational education has in the past focused largely on dropouts (Grade 8 and upwards) and on Grades 11–12. However, students passing out from Grades 11–12 with vocational subjects did not have well-defined pathways to continue with their chosen vocations in higher education.

The admission criteria for general higher education were also not designed to provide openings to students who had vocational education qualifications, leaving them at a disadvantage relative to their compatriots from mainstream education. This led to a complete lack of vertical mobility for students from the vocational education stream, an issue that has only been addressed recently through the announcement of the National Skills Qualifications Framework (NSQF) in 2013.

By 2025, at least 50% of learners through the school and higher education system shall have exposure to vocational education. This is in alignment with the Sustainable Development Goal 4.4, and will help to realise the full potential of India's demographic dividend. The number of students in vocational education will be considered while arriving at the GER target. The possibility of offering vocational courses through ODL mode will also be explored in programmes, wherever possible. The development of vocational capacities will go hand-in-hand with development of 'academic' or other capacities.

Vocational education will be integrated in the educational offerings of all secondary schools in a phased manner over the next decade. Towards this, secondary schools will collaborate with ITIs, polytechnics, local industry etc.

Higher education institutions will offer vocational education either on their own or in partnership with industry.

The B.Voc. degrees introduced in 2013 will continue to exist, but vocational courses will also be available to students enrolled in all other Bachelor's degree programmes, including the 4-year holistic Bachelor's programmes. HEIs will also be allowed to conduct short-term certificate courses in various skills including soft skills. 'Lok Vidya,' knowledge developed in India, will be made accessible to students through integration into vocational education courses.

Vocational education will be integrated into all educational institutions in a phased manner over the next decade. Focus areas will be chosen based on skills gap analysis and mapping of local opportunities, and technical and vocational education will become part of the larger vision of holistic education. The MoE will

constitute a **National Committee for the Integration of Vocational Education (NCIVE), along with industry participation**, to oversee this effort and should also earmark budget for promoting this integration.

The National Skills Qualifications Framework will be detailed further for each discipline vocation / profession. **Further, Indian standards will be aligned with the International Standard Classification of Occupations maintained by the**

International Labour Organisation. This Framework will provide the basis for Recognition of Prior Learning. Through this, dropouts from the formal system will be reintegrated by aligning their practical experience with the relevant level on the Framework. The Framework will also facilitate mobility across general and vocational education.

Section: 17.4.

Healthcare education shall be re-envisioned such that the duration, structure, and design of the educational programmes are as required for the roles that graduates will play. For example, every healthcare process/intervention (e.g., taking/reading an ECG) does not necessarily need a fully qualified doctor.

All MBBS graduates must possess (a) Medical skills, (b) Diagnostic skills, (c) Surgical skills, and (d) Emergency skills. Students will be assessed at regular intervals on well-defined parameters primarily for the skills required for working in primary care and in secondary hospitals.

Quality of nursing education will be improved;

a national accreditation body for nursing and other sub-streams will be created.

Given that our people exercise pluralistic choices in healthcare, our healthcare education system must be integrative: this would mean, illustratively, that all students of allopathic medical education must have a basic understanding of Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy (AYUSH), and vice versa.

There shall also be a much greater emphasis on preventive healthcare and community medicine in all of healthcare education.

Section: 21 – Adult education

21.5. First, an outstanding **Adult Education Curriculum Framework** will be developed by a new and well-supported constituent body of the NCERT that is dedicated to adult education, so as to develop synergy with and build upon NCERT's existing expertise in establishing outstanding curricula for literacy, numeracy, basic education, vocational skills, and beyond. The curriculum framework for adult education will include at least five types of programmes: (a) foundational literacy and numeracy; (b) critical life skills (including financial literacy, digital literacy, commercial skills, health care and awareness, child care and education, and family welfare); (c) vocational skills development (with a view towards obtaining local employment); (d) basic education (including preparatory, middle, and secondary stage equivalency); and (e) continuing education (including engaging holistic adult education courses in arts, sciences, technology, culture, sports, and recreation, as well as other topics of interest or use to local learners, such as more advanced material on critical life skills). The framework would keep in mind that adults in many cases will require rather different teaching-learning methods and materials than those designed for children.

Section: 23.9.

Universities will play an active role not only in conducting research on disruptive technologies but also in creating initial versions of instructional materials and courses (including online courses) in cutting-edge domains and assessing their impact on specific areas such as professional education. Once the technology has attained a level of maturity, autonomous colleges can scale these teaching and skilling efforts.

Disruptive technologies will make certain jobs redundant and hence approaches to skilling and de-skilling that are both efficient and ensure quality will be of increasing importance to create and sustain employment. Institutions will have autonomy to approve institutional and non-institutional partners to deliver such training, which will be integrated with skills and higher education frameworks.

Analytical Comments:

My recommendation to establish Skill's Development Centers (SKCs) in selected parts of Karnataka is to bridge the gap between extant curricula and their employment (in fact unemployment) quotient. In view of the very high emphasis placed by NEP on skill development, which progresses from acquiring foundation skills and life skills in school education to blossom into a veritable set of skills to help a student to perform to his/her full potential in a chosen profession and/or higher education and research careers.

To deliver the above mentioned stage-specific skills it is essential to design a framework according to the needs of the State. Accordingly, SKC is designed to impart a wide range of skills to integrate the recommendations of NEP such as –mentoring skills for teachers/professional mentors, employable skills after schooling, special skills for teaching divyang students and modern skills required for higher education involving professional courses in medical, paramedical, engineering, technical, law, education, commerce, management, rural development and such other emerging education sectors which are socially relevant to the country and possess national and global professional/employment opportunities.

Translating the above concept of a multi-purpose SKC into an efficient educational service delivery system for the entire state involves huge costs. Therefore, it is essential to invoke a concept of

State Level Education Accelerators (SLEAs) as a cost effective system.

Several Accelerators/Academic Resource Centers have been established at the national level:

UGC Inter University Accelerator Center (IUAC), New Delhi which houses advanced instrumentation facility which is beyond the financial resources of individual universities. They are open to all universities which undertake research using such advanced instruments. As of now (April, 2020), 6 such Accelerators have been established by MHRD:

1. Inter University Center for Astronomy and Astrophysics (IUCAA), Pune, Maharashtra
2. UGC-DAE Consortium for Scientific Research (UGC-DAECSR), Indore, Maharashtra
3. Information and Library Network (INFLIBNET), Ahmadabad, Gujarat
4. Consortium for Educational Communication (CEA), New Delhi
5. National Assessment and Accreditation Council (NNAC), Bangalore
6. Inter University Center for Teacher Education (IUCTE), Kakinada

These are national level accelerators to promote specific areas of knowledge and their related research output in all universities, thus saving on huge costs of establishing similar facilities in many universities; redundancy is avoided.

The concept is relevant to the translation of NEP recommendations into affirmative action in the states such as SKCs.

Academic Profile of a SKC:

In accordance with the skill component requirements for implementing NEP in the state, mechanisms/facilities for training school teachers (Teacher's Academy) in Mentoring, Language empowerment (teach the teacher programmes), online education, special education for Divyang, sports (nutrition, psychology, medicine, equipment) and Yoga and Physical Fitness. Adopting online modules would help to reach out to a large number of beneficiaries.

In addition, training programmes for uneducated/minimally educated sector for self-employment as healthcare assistants and such other programmes may also be offered through SKCs. Specifically for healthcare assistants, in addition to professional training, communication skills in regional and national languages would widen their scope of employment in the State and/or nation.

Third Party Skill Certification:

NEP proposes to align the National Skills Qualifications Framework (NSQF) with the International Standard Classification of Occupations maintained by the International Labour Organization (ILO). This measure provides a novel platform to extend the employment opportunities across nations.

Towards this objective, Karnataka should prime its education institutions to design their curricular contents. The government, as a regulatory stakeholder, should bring the educational institutions and the FKCCI (a collective of potential employers - industrial and commercial organizations) together, on the same page, to ensure that the employment seeking students have a fair chance of employment commensurate with their skills.

It is relevant to note that although the government, on the recommendations of KSHEC, has notified all universities to establish a Employment Guidance Center jointly with FKCCI, it is yet to happen in the state universities. It is time to give a wakeup call to all concerned to ensure the progressive measures of the government are complied with promptly in the interests of the students.

Employability of the graduates depends on their skills acquired in the chosen diploma/degree courses. Thus, Third Party Skill Certification by a competent authority becomes a key issue for mobility of the student across the nation/s. The procedure is similar to grading institutions by NAAC by constituting national committees comprising only external members; no member from the state to which the institutions belong is included to avoid biased assessment.

This point is made clear jointly by British Council-ILO Conference proceedings (2014) which strongly recommend a Third Party Skill Certification Process, which is a globally acknowledged system to independently assess the employable skills of a student, for local/national/international organizations. As indicated by NEP, efforts are already on to align NSDF guidelines with ILO standards.

Thus, to make the university level system more complete, the Employment Guidance Cell in each University should comprise FKCCI and NSDF or State Skill Council (SSC) representative to translate the recommendations of NEP into implementable programme. For more details, see Skills Assessment in India- A discussion paper on Policy, Practice and Capacity, copyright © British Council and International Labour Organization, October 2014.

Recommendations:

My recommendation to establish SKCs finds huge support in the NEP. To translate the proposal to impart training of whole range of skills, starting from Mentoring to school education skills such as foundation skills, life skills etc., and skills corresponding to the higher education, research, social leadership an appropriate institutionalized delivery system is essential. The SKCs serve this function efficiently provided their organization matches the requirements of NEP proposals.

1. Although it is desirable to establish a SKC in each district, the number and location of SKCs may be decided by the government, phase wise, with due weightage for removing regional imbalances.

2. ASKC should comprise the following facilities:

A Teacher's Academy to fulfill the NEP requirements for school education, including pre-schooling viz., to train mentors and teachers in modern methods of teaching languages, teaching-learning methods.

- Teacher's Academies should also train special educators to teach divyang students
- Although NEP plans to train special educators to address the needs of divyang students, it may be extended to all school teachers in the form of sensitizing programmes in two specific languages concerning divyang viz., Braille and Sign languages; they would then be able to communicate with the students under their custody. Such short term programmes would be immensely valuable in training Mentors and PROs in civil/social service departments.
- Wherever there is need, SKC should offer selected certificate and diploma courses with high employment potential to students who have opted out of regular mode of education – computer

science, electronics and instrumentation, Refrigeration, performing Arts. Of particular significance would be to offer diplomas in medical courses such as Optometry, Dentistry, Hotel management, Hospital Management and such other courses.

- SKC should be fully equipped in terms of infrastructural, academic, technological requirements to fulfill its obligations

Viewed from any angle, establishment of SKCs as State level Accelerators (modeled after the MHRD-UGC institutions discussed above) would be worthwhile to translate the objectives of NEP as well as my recommendations.