

CHAPTER 8 – VOCATIONALISATION OF SCHOOL EDUCATION

8.1 INTRODUCTION

8.1.1 Schools provide an environment for systematic teaching-learning to the learners for acquiring knowledge, skills and attitude required to meet the varied aspirational needs and educational goals. Vocationalisation of education refers to the inclusion of those practical subjects or courses, which shall generate among the students some basic knowledge, skills and disposition that prepare them to think of becoming skilled workers or entrepreneurs. It serves as an instrument to bring about the connectivity between general education and vocational education. It may be seen as an instrument for providing diversification of educational opportunities, enhancing individual's employability and enabling individual to pursue higher education.

8.1.2 The Vocationalisation of School Education has been aligned with the National Skill Qualification Framework (NSQF) notified by the Ministry of Finance. It has been developed in a way that it links the various elements of vocational education in schools with those of the general education, businesses and industry so that the vocational pass outs can exit with employment-related skills. It envisages close partnership with the industry in the design, development, delivery, assessment and certification of skills content.

8.2.1 AIMS AND OBJECTIVES

8.2.1 The aim of introducing vocational education in schools is to prepare educated, employable and competitive human resource for various sectors of the economy and the global market. The main objectives are to enhance the employability of youth through demand driven competency based, modular vocational courses, to bridge the divide between the academic and applied learning and reduce the dropout rate in schools.

8.3 SCOPE

8.3.1 The Vocationalisation of School Education component aims to introduce vocational courses along with general education subjects from Classes IX to XII. The vocational subjects are to be introduced as an additional or compulsory subject at the Secondary level and as compulsory (elective) at the Senior Secondary level. The scheme primarily covers Government schools. Government aided schools, in those States/UTs where Government schools have already been covered under the Scheme, may also be considered for financial assistance as per the norms. Exposure to Vocational Education would also be provided in Classes VI to VIII with an aim to provide opportunities to the students to orient themselves with the skills required for the various occupations in a sector and to equip them to make informed choices while selecting their subjects in higher classes.

8.3.2 The component would involve introduction of vocational education in schools, capacity building of vocational education teachers/skill trainers, development of competency based curriculum and teaching learning material, development of management information system for monitoring and evaluation, and taking up innovative programmes under vocational education.

8.4 IMPLEMENTING AGENCIES IN STATES/UTs

8.4.1 The scheme will be implemented in the schools by the State/UT Governments through the respective Departments of School Education and Boards of School Education.

8.5 IMPLEMENTATION MECHANISM

8.5.1 Selection of Vocational Courses

8.5.1.1 The selection of vocational courses by the States/UTs should be based on the assessment of skill needs conducted nationally and locally. The States/UTs may conduct a detailed mapping of the local job opportunities available or labour market requirements to identify schools for introduction of the vocational subject. Documents supporting the procedure adopted for selection of vocational courses may be annexed with the Annual Work Plan and Budget proposals of the State/UT. In addition, States in consultation with the local industry etc. will also identify the human resource needs at the local level. While selecting the courses for the schools, the State /UT should ensure that local skill needs are appropriately addressed and suitable opportunities of employment are available for the students passing out in neighbouring areas. Besides reflecting the needs of skills across sectors, courses that are introduced in schools may also be in tandem with the aspirations of parents and students. While selecting the course, care should be taken by the States and UTs to adequately map the diversity of skill needs. The NSQF compliant vocational courses to be selected for Classes IX-X and XI-XII may preferably be in the same sector having appropriate career progression in order to ensure optimum utilization of the infrastructure created. Opting a single course for large number of schools may adversely tilt the supply of skills vis-a-vis the demand. Over a period of time, in case the need so arises, the vocational courses offered by the school can be considered for change in accordance with the skill requirement.

8.5.1.2 The schools may offer two vocational courses in Classes IX-X and XI-XII, with 40 students in each section. Each course may be covered in the span of 2 years. NSQF compliant vocational courses which require longer duration of training may be covered in 4 years. If considered feasible, one vocational course may be offered in schools located in rural, thinly populated areas, SFDs and EBBs etc.

8.5.2 Inclusion of Vocational courses in Scheme of Subjects

The Central/ State school Education Boards may make necessary amendments to include the selected vocational courses in the scheme of studies both at secondary and Senior Secondary level.

8.5.3 Selection of Schools

8.5.3.1 The proximity between the schools and industry/employer would be a major consideration in the selection of schools for implementation of the scheme. Every school will be required to have linkage with some related enterprise/ industry/ farm/ organization, etc.,

for hands - on training, specialized quality assurance and other relevant aspects. With a view to effect convergence at the grass root level, the State Education Departments shall also map the spare capacity and infrastructure available in the Government and private run Industrial Training Institutes and seek to utilize the same for providing hands on skill training to the students through appropriate Memorandum of Understanding.

8.5.3.2 While selecting schools preference will be given to schools located in Special Focus districts, Educationally Backward Blocks, in left wing extremism affected districts aspirational districts and in districts with high dropout rates at the secondary level.

8.5.4 Classroom-Cum Lab/Workshop

8.5.4.1 State of the art classroom-cum-lab and workshop may be developed in the school to ensure effective practical training of the students. Lab equipment and resources may be based on the requirements of the subject and the financial limits. The state needs to ensure timely procurement of the lab equipment and raw materials so that the lab is set up before the start of the academic session.

8.5.4.2 An indicative list of tools, equipment and materials for setting up the lab/workshop will be provided by Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) in consultation with the respective Sector Skill Councils.

8.5.5 Equipment and raw materials

8.5.5.1 Tools, equipment and machinery for the development of soft and basic technical skills would be provided to the schools. The list of the tools and equipment mentioned in the curriculum developed by PSSCIVE would form the basis for procurement.

8.5.5.2 If required, the States may constitute a committee for finalizing the list of equipment with the help of experts and the representatives from the respective Sector Skill Council. Proper inventory and upkeep of all items purchased under the scheme should be ensured. Procurement of tool and equipment through GeM Portal is recommended wherever course specific tools and equipment list is readily available.

8.5.6 Programme Management

8.5.6.1 Collaborations in management will address administration and organizational reforms in matters such as strategic planning and goal setting, increased autonomy to Principals and teachers in procurements, finance, accounting, monitoring of performance standards, etc. NGOs/voluntary organisations and Vocational Training Providers (VTPs) working with various skill development scheme of Government of India may also be involved by the States in order to utilize their experience and expertise in various domains, like project management, training, etc. to facilitate vocational education in schools. Besides this, it is advisable that states may have a dedicated cell for vocational education within the department of school education.

8.6 CURRICULUM AND COURSEWARE

8.6.1 The vocational curriculum should be learning outcome based. Besides curriculum, the training package should include student textbook, teachers/trainers handbook, training manual, teachers/skill trainers' qualifications, assessment guidelines, multimedia packages and e-learning materials. The curriculum would be referenced to the notified National Occupation Standards/Qualification Packs developed for various job roles by the respective Sector Skill Councils. Curriculum and courseware development including e-content, student handbook, practical manuals, activity worksheets, etc. will be undertaken by the PSSCIVE, National and State Education Boards and other reputed institutions having necessary expertise and experience in development of curriculum and courseware, with greater inputs from industry/ Sector Skills Councils in accordance with the National Occupation Standards mapped to the needs of the industry. In order to provide broad overview of various sectors for enhancing the competences of school students, PSSCIVE may develop courses suitable for school system in collaboration with States/ SSCs and obtain necessary approval for their NSQF compliance. The State/UT may also indicate the need of such courses to PSSCIVE keeping in view their skill needs.

8.6.2 Teacher and trainer guides, practical manuals/workbooks, charts, multi- media packages would also be made available to all the States/UTs for translation and implementation. The State/UT Governments may translate the curriculum and courseware in the language used as medium of instruction in their respective schools with the assistance of SCERTs, School Boards etc.

8.6.3 The curriculum shall comprise modules on vocational skills and employability skills including entrepreneurship skills. The employability skills modules will include communication skills, self-management skills, ICT skills, entrepreneurial skills, and green skills for enhancing the employability of the students. E-content on employability skills may be developed and disseminated by PSSCIVE. A component of internship shall be an integral part of the curriculum transaction. Students would be required to complete a minimum of 80 hours of workplace learning or on-the- job learning. Internship programme will help students in developing personalized training plans, acquiring first hand information related to the industry, exploring new and expanding opportunities in the labour market and developing skills attuned to the needs of the labour market.

8.6.4 Lifelong learning skills shall be developed among students so as to enable them to cope up with the rapid pace of economic and technological developments and at the same time become lifelong learners.

8.6.5 E-Learning materials

8.6.5.1 The PSSCIVE and other Institutes/agencies having requisite experience and expertise will develop e-learning materials for various vocational courses and would make them available to the States/UTs. The State/UT Government shall provide necessary infrastructure in schools for effective use of multimedia. Infrastructure and software, etc. established under the ICT scheme may also be appropriately leveraged in running the vocational courses.

Multimedia and e-learning materials suited to the needs of the learners, including children with special needs may be developed.

8.7 FACULTY AND STAFF

8.7.1 The Principal or the Headmaster of the concerned school shall act as the Chief Coordinator of the programme and will ensure seamless coordination and effective implementation of vocational courses. At a cluster level, for schools opting for a common trade, an industry coordinator can be engaged to assist the interface of schools with the local industry for training; assessment, etc.

8.7.2 The Principal/Head Master in consultation with industry representatives shall arrange for proper guidance and counselling of the students and sensitization of the parents. He/ She shall oversee the working of the faculty/ resource persons/ skill trainers and ensure effective linkages with the industry with the involvement of the District Education Officer, District Industry Officer and the Industry Coordinator.

8.7.3 Vocational courses will be conducted with the help of Teachers/Skill trainers as well as guest faculty on need basis. Schools shall be authorized to engage Teachers/Skill Trainers with such qualification and experience as laid down by the PSSCIVE. The qualification for the teachers/skill trainers will vary with reference to each cluster of vocational courses. Accordingly, PSSCIVE will work out the details of qualification for engaging teachers/ skill trainers and would circulate the guidelines for the selection and engagement of skill trainers to all the States/UTs. The States will have to ensure that teachers/skill trainers are selected well in advance before the commencement of the academic session. States/UTs may consider engaging with Vocational Training Providers (VTPs)/Vocational trainers for a minimum period of two years through appropriate Memorandum of Understanding (MoU) to ensure stability.

8.7.4 The Teachers/Skill Trainers will impart knowledge of both the theory and practical in their respective trades. The performance appraisal of Teachers/Skill trainers shall be conducted at the end of each academic session and their further retention shall be linked to delivery of quality output. Financial assistance will be linked to engagement of qualified trainers/teachers.

8.7.5 Industry would be an important partner in providing master trainers as well as resource persons for various vocational courses. The Principal in consultation with the industry to which the school is linked can invite resource persons for the concerned vocational courses within the specified norms and guidelines. In certain traditional skills and occupations like handicrafts and handloom etc., the resource persons for providing training for vocational courses can be obtained from amongst rural skilled/semi skilled persons in the concerned vocation as per the guidelines.

8.7.6 Specialized practical work and training would be arranged in commercial and industrial establishments, ITIs, Polytechnics, Community Colleges, hospitals, farms, etc.

depending on the vocation and the nature and level of practical training required for the course for which a funding provision has been made in the scheme. Training arrangements may also be made in the unorganized sector on half or full day basis. Structural flexibilities in the timetable should be made to arrange practical training according to the mutual convenience of students and the trainer/industry. For the above purpose, MOUs shall be signed between the school/institution and industries/user organizations. The Department of Education in the States/UTs will ensure that necessary instructions are issued to concerned officials to ensure full cooperation of industries, ITIs, Polytechnics, for imparting practical training to vocational students.

8.7.7 Detailed guidelines for practical training in industry will be prepared by the PSSCIVE, Bhopal. Wherever possible industry engagement may be converged with the concessions and benefits being granted to the Industry by the Central and State Government for their contribution in skill development e.g. tax benefits being given to the industries for training individuals under the Income Tax Act, etc.

8.8 TRAINING OF TEACHERS

8.8.1 Appropriate quality assurance, verification and validation procedures would need to be established for assuring the quality of the Vocational Teachers/Trainers. A Vocational Teacher/Trainer should possess (i) Content knowledge, (ii) Pedagogical knowledge and (iii) Pedagogical content knowledge. They should continuously strive for pursuing excellence through better performance and professional development.

8.8.2 PSSCIVE, a constituent of NCERT will act as the principal coordinating agency for organizing teacher training programmes. The training programmes may be reoriented to develop the professional Vocational Teachers/ Trainers as per the NOSs. Sector Skill Councils or Industry Associations will play a key role in supporting and improving the quality of Vocational Teachers and Trainers through interventions at various levels.

8.8.3 Effective implementation of induction and in service training of Vocational Teachers shall be imperative to bridge the current gap between demand and availability of qualified teachers/skill trainers and to keep the teachers/skill trainers abreast with industry requirements. An induction training of 10 days duration will also be organized by the respective States/UTs for all the selected teachers/skill trainers. If felt necessary the induction training can be staggered over two spells of training programme of 5 days each. Regular in-service training programmes of 5 days on pedagogy, subject content and other related aspects of vocational education may be organized by the PSSCIVE and State Education Departments for all teachers/skill trainers through established training institutes having necessary experiences and expertise. While conducting the training programmes, all efforts may be made by the States and UTs to involve the SCERTs and other Teacher Education Institutes to leverage their capacities. States and UTs, may consult PSSCIVE and seek necessary assistance, whenever required. The list of Vocational Teachers/Trainers trained through

induction and in-service training may be uploaded on the website of the State Department of School Education and PSSCIVE.

8.8.4 Training of Trainer programme for building a pool of resource persons for providing state-of-the-art training to teachers/skill trainers would be developed by PSSCIVE in consultation with NCTE and would be offered in institutions like PSSCIVE, Bhopal, Regional Institute of Education of NCERT, Teacher Training Colleges, National Institutes of Technical Teacher Training and Research, Universities, etc. for meeting the requirement of teachers/skill trainers. Re tooling programmes will be developed for promotion of vocational pedagogy and blended learning. PSSCIVE should organize training programmes for developing Master Trainers for induction and in-service training. Training modules and e-content for this purpose may be developed which could also be disseminated to States/UTs.

8.8.5 Orientation/sensitization programmes/workshops may be organized for various stakeholders including Central and State Boards of Education.

8.8.6 States/UTs may prepare a panel of vocational teachers/trainers with the help of NSDC/SSC for each of the sectors. While appointing these trainers, they may be oriented on educational pedagogy in order to enable them to understand the needs of the school system and equip them for classroom transactions.

8.8.7 Induction Training

8.8.7.1 The induction training programme should be organised for newly recruited vocational teachers by the State Implementing Agency in collaboration with PSSCIVE, Sector Skill Councils, RIEs, SCERT and other stakeholders. Training in Industry should be facilitated by the Sector Skill Councils (SSCs). The induction training programme should be conducted before the commencement of the course in the school so that trainers are familiar with the pedagogy, school environment and essential tenets of the programme beforehand.

8.8.7.2 The initial preparatory programmes for Vocational Teachers/Trainers may focus largely on the vocational pedagogy and less on industrial or specialized skills. It may comprise theoretical knowledge and practical competencies in the delivery of VET using the theories and principles of pedagogy.

8.8.7.3 Training programmes on classroom management, managing resources (including material and human resources), strategic planning, leadership techniques, production methods, etc. may be regularly organized by PSSCIVE, RIEs of NCERT and SCERTs. Reputed organizations having experience in this field may also be involved.

8.8.7.4 The vocational teachers engaged in the Senior Secondary schools offering vocational courses under the erstwhile scheme of vocationalisation of secondary education may be retrained to the new curriculum requirements and implementation strategies under the NSQF. This would require intensive skill based training programmes in collaboration with the local

Industry. The possibility of utilizing these vocational teachers as vocational coordinator may also be explored.

8.8.8 In-service Training

8.8.8.1 Special training programmes on communication skills, vocational pedagogy, ICT skills, Vocational guidance and counseling, etc. may be organized by the PSSCIVE, RIEs and SCERTs to develop the competencies of Vocational Teachers.

8.8.8.2 Training of Vocational Teachers on the use of advanced technology (including ICT) and innovative techniques may be regularly organized, especially to support training of children with special needs.

8.8.8.3 Vocational teachers may be trained in utilizing e-learning materials, instructional video-films and interactive computer aided programmes for supplementing teaching and providing a wide variety of learning experiences to the learners.

8.8.8.4 Subject Specific training programmes may be organized by PSSCIVE, RIEs and SCERTs with the help of industry experts for regular upgradation of competencies of in-service vocational teachers. Pre-test and Post-test needs to be made mandatory for all the training programmes for improving the quality of training.

8.8.8.5 In order to increase training capacity, interactive training programmes utilizing technology based systems like EDUSAT/SWAYAM may be encouraged. Self-learning online programmes, including Massive Open Online Courses (MOOCs) may be developed for the Vocational Teachers and students.

8.9 ENGAGEMENT WITH INDUSTRIES/ EMPLOYERS/USER ORGANIZATIONS

8.9.1 The industry shall provide support in terms of providing resource persons, qualified assessors, skill trainers and support for apprenticeship training. The Corporate Social Responsibility Initiatives of the industries may also be leveraged where ever feasible. In all such cases, funding for such components under the Scheme will be appropriately targeted to avoid overlap.

8.10 CURRICULUM TRANSACTION

8.10.1 Learning by doing is the most important aspect in vocational education. Therefore, the curriculum transaction should focus on activity based teaching-learning so that students learn by doing. Students should be made accountable for both their academic and on-the-job learning by providing continuous feedback through formative assessment and evaluation.

8.10.2 Field visit of students needs to be organized in industry, business and actual work situations to enable them to understand and appreciate the real time work requirements and make choices accordingly.

8.10.3 Special classes on entrepreneurship may be conducted for those students who opt for self-employment. Besides giving necessary guidance to the students for setting up their ventures, the teachers/skill trainer may continue to provide technical support to them for the transition period. Efforts may be made at appropriate levels to arrange soft loans and to devise marketing strategies for these young skilled entrepreneurs.

8.10.4 The vocational subjects should be allotted atleast 2-3 continuous periods at a stretch so that practical activities can be conducted seamlessly without any breaks.

8.11 ASSESSMENT AND CERTIFICATION

8.11.1 The competencies acquired at each level would be assessed and certified by the Awarding Bodies i.e. the concerned National and State Education Boards to which the schools are affiliated, with the involvement of Sector Skill Councils. If the SSCs are not in place, industry associations /employers shall be associated. The results and the credits received therein would be collated by the Awarding Body with the assessment and certification of the theoretical component of the syllabi assessed in the educational institution and the skill proficiency assessed in association with the industry/SSCs. The examination shall include both written and oral elements for assessment of vocational knowledge and practical tests for vocational skills. The certificate awarded should mention the competencies and marks received in both theory and skills. The skills being duly assessed by SSCs/industry should be recognized and accepted by industry and prospective employers.

8.11.2 Guidelines for competency based assessment and certification of students will be provided by PSSCIVE, Bhopal, to be adapted by the concerned State Boards. While drawing the assessment and certification framework, PSSCIVE will consult the industry/Sector Skills Councils. The assessment and certification framework would provide for weightage of marks for skill and theory components, minimum qualifying benchmarks, duration and design of exams, modalities of internal and external assessment of theory and skills, qualification of assessors, etc. Internal assessment of the performance of students will be done by the school in a continuous comprehensive manner. The National or State Boards, as the case may be, would conduct external competency based assessment of skills of the students in collaboration with the concerned Sector Skill Council/industry/employer. The state /UT need to adhere to the Assessment and Certification time lines. Local capacity for assessment may be developed by working with state bodies (State Skill Development Mission).

8.11.3 The grades/marks obtained by the student in the vocational subject shall be necessarily factored in the final mark sheet. External assessment with the involvement of SSC may be taken up only at the end of Classes X and XII. The States/UTs need to follow the assessment timeline. In Classes IX and XI, the practical assessment may be done by the State/UT by interchanging the teachers/trainers amongst different schools for the purpose of assessment.

8.11.4 In case a student is not able to clear academic subject(s) but clears the vocational subject in class 10 and / or class 12 board exams, the student would be entitled to get a competency based certificate of vocational subject from the Sector Skill Council, certifying

the job role/level completed. This will help the student to continue to study the vocational education course at an ITI or gain employment based on the skill certification.

8.12 STUDENT SUPPORT SYSTEMS

8.12.1 A student support system will be crucial for the success of the vocational education programme.

8.12.2 Vertical Mobility

8.12.2.1 The vertical progression in vocational education would need to be strengthened so that the vocational pass out students of schools can gain entry into vocational courses offered by Polytechnics, Industrial Training Institutes and higher education, including Bachelor of Vocational Education (B. Voc).

8.12.2.2 The School Education Department in coordination with the Department of Higher and Technical Education of the State/UT may create more avenues for vertical mobility like introducing B. Voc courses in universities. They may assist and facilitate the students in pursuing higher education in vocational subjects. School vocational education qualifications should be recognized by higher education institutions at par with academic qualifications for admission to diploma and degree courses.

Few states have taken initiative for vertical mobility like:

- Haryana has made provision for direct admission of school vocational education students to 2nd year of the diploma courses.
- Maharashtra has provided 25% reservation for Class 10th vocational pass-outs in ITIs and 15% reservation in Polytechnics.
- Himachal Pradesh provides 10 % extra weightage to class 12 vocational pass outs for admission in the B.Voc courses being run in the state.

8.12.3 Career Information and Guidance

8.12.3.1 Vocational guidance, which is a process of assisting an individual to select an occupation, prepare for it, enter upon and progress in it, will be critical in ensuring requisite enrolment of students in various vocational courses and for assisting the students in making an informed choice of vocational courses. Specific counselling drives should be organized in the school involving suitable experts. It shall be the responsibility of the Principal of the school to invite / involve the Counsellors / resource persons/experts from the industry from time to time for providing necessary guidance to students and parents regarding market trends and suitable vocational choices. The Counselor would also inform students about the various job opportunities, possibilities of vertical and horizontal mobility and also opportunities for self-employment.

8.12.3.2 A review of recruitment rules and procedure are a pre-requisite. Central and State Governments and employers, including private, will need to amend the recruitment policies, rules and procedures for giving preference to persons with competencies compliant with the NSQF.

8.12.4 Organization of Career Melas

8.12.4.1 The placement of students passing out with vocational subjects will be an important parameter for measuring the outcome and impact of the scheme. As an important stakeholder of the Scheme, the industry/ employers in the area, in close association with schools may endeavor to conduct /organize career/job fairs, campus interviews, recruitment drives, etc. for suitable placement of students. The services of the industry co coordinators can be utilized for this purpose.

8.12.5 Apprenticeship Training

8.12.5.1 The Apprentices Act 1961 was enacted with the objective of regulating the programme of training of apprentices in the industry by utilizing the facilities available therein for imparting on-the-job training.

8.12.5.2 The apprenticeship training scheme is being implemented through the four Regional Boards of Apprenticeship Training (BOAT) at Mumbai, Kolkata, Chennai and Kanpur. The State Education Department, and District Education Office, State Skill Development Mission (SSDM) and Vocational Training Providers (VTP) may liaise with the BOATS for apprenticeship training of the students.

8.12.5.3 As per law, only persons above the age of 18 can be given a full time job and most students in schools who follow a vocational education course and who need a job, are not eligible. The MoU between the State/UT and the VTP should include a provision so that the VTP undertakes to provide apprenticeship to at least 70% of the interested students, who are below the age of 18, and thereafter a job. The undertaking should further provide for giving job to at least 70% of the interested students who are 18 years and above of age.

8.12.5.4 Effective implementation of the provisions of the Apprenticeship Act can be ensured through (i) Coverage of additional vocational courses under the Apprentices Act, (ii) More effective arrangements for accommodating vocational pass outs in the industry and organisations, and (iii) Effective coordination between the various stakeholders.

8.13 GIRLS' PARTICIPATION

8.13.1 Special guidance and counselling session may be organized for girls as per need. The Principal of the school should take necessary steps to remove gender bias, if any, in the minds of employers /financiers against giving the girls employment or loans. The implementation aspects in favour of girls mentioned in other appropriate sections of the scheme would be ensured. All the reporting, data generation shall be in gender segregated manner.

8.14 COVERAGE OF SPECIAL FOCUS GROUPS

8.14.1 Efforts will be made by the States/UTs to mainstream children belonging to special focus groups i.e. SC, ST, OBC, minority, persons below poverty line and children with special needs, with special attention to the girls belonging to these groups. Special priority would be given for introduction of vocational education in schools in identified SC, ST and minority concentrated districts/ blocks. States/UTs will encourage and ensure the participation of students belonging to the special focus groups in vocational education through suitable measures. Enrolment drives, provision of special facilities, working in close collaboration with parents and community based organization etc. may be undertaken to ensure participation of special groups in vocational education. Monitoring attendance, organizing remedial classes and follow up of special groups will be done by the concerned schools.

8.14.2 Arrangements will also be made in schools for removing architectural barriers for providing easy access to learners with special needs. The curriculum and teaching methodologies must recognize and address the needs of all learners with special needs. For giving due care and attention to such students, necessary orientation and sensitization of teacher/skill trainer preparation will be ensured. While selecting the vocational courses, the diverse needs of the learners with special needs will also be factored in.

8.15 PROGRAMME MONITORING AND EVALUATION

8.15.1 Monitoring and Evaluation will be a built-in feature of the programme. Monitoring of programme implementation will be done at various levels, viz., National, State, District, Block and Institutional level. The feedback mechanism would ensure identification of deficiencies in instructions, administration, financial management, etc., so that the functionaries at each level are able to take timely decisions to fill in the gaps in policy-making, direction, budgeting, etc.

8.15.2 The data on vocational education is being captured through UDISE and SDMIS. It is the responsibility of State officials to ensure that the data related to vocational education is filled in by the concerned schools. The Online Monitoring mechanism through Project Management System (PMS) has been developed. The data on coverage, performance, placement may be regularly updated by states on the PMS portal. The Principal/ Headmasters may be made responsible for updating the data. SMC/ SMDCs, local bodies including PRIs may be closely involved in the monitoring of the Scheme. An Online app for monitoring and tracking, sharing stories and raising issues may be developed.

8.16 COORDINATION AND CONVERGENCE

8.16.1 Active coordination and convergence of all efforts of the Central and State governments towards skill building is essential for ensuring efficiency, effectiveness and

economy in delivery of outputs and outcomes. While implementing the scheme, the State and the UTs shall make all necessary efforts to secure convergence with ongoing Central/State government schemes. Inter-departmental Committee in close coordination with the State Skill Development Mission may be set up at the State level to guide and monitor the implementation of the Scheme.

8.16.2 Necessary efforts shall be made to utilize the existing infrastructure (classrooms workshops, labs, etc), resource persons, etc. available in schools and ITIs, Polytechnics, Community Colleges and Skill Development Centers for implementation of the scheme. Curriculum and courseware already prepared under skill development Schemes being implemented by various Departments and Ministries of Government of India and State Governments may be leveraged. Convergence may also be explored with ongoing schemes, skill initiatives, financial benefits, incentives, scholarships etc on skill development funded by National and State Governments through various Ministries, Departments, Institutions, Agencies etc.

8.17 INTRODUCTION OF VOCATIONALISATION OF SCHOOL EDUCATION FROM CLASSES VI TO VIII

8.17.1 Introduction of vocationalisation of school education from Classes 6 to 8 will help in connecting skill based activities with general academic subjects, like science, language, social science, etc. It will be useful in providing opportunities to the children to explore the basic skill requirements for the various productive tasks in the world of work. The underlying idea behind such work based activities is to make them as an integral part of the teaching -learning process rather than as an add-on to the existing scheme of studies of education from Classes 6 to 8. It will not only reduce the boundaries between the bookish knowledge and application of knowledge but will also expose children to the skill requirements in the work areas, thus helping them to decide the future career path. These multi-skill activities, inter alia, would also foster the development of soft skills, such as aesthetic values, cooperation, team work, judicious use of raw materials, creativity, quality consciousness, etc. Students shall also visit organizations and people engaged in different occupations for insightful knowledge and skills related to potential areas of future employment.

8.17.2 All the schools would introduce vocationalisation of education from Classes 6 to 8. The vocational modules on soft and hard skills will help children to explore the essential aspects of the world of work and prepare them for choosing a vocational subject or a career options. Through the soft skills, children will develop dispositions, attitude and social competencies to become functional at personal and social level. The soft skills modules will develop communication skills and ICT skills. For vocational skills components, activities based on the themes given in the syllabus for the general education subjects can be organized.

8.17.3 The general education teachers of languages, mathematics, science, social science, art, music, and work experience would be involved in the organisation of the skill-based activities related to the themes that they are teaching. The curriculum load and the time table will have

to rationalized to provide enough time to the children to participate actively in the activities. The teaching-learning methodology may be based on observation, manipulation and practice. Concerned subject teachers may be trained in the use of teaching techniques that support activity based learning, including hands-on learning, problem solving, cooperative or team-based projects, lessons requiring multiple forms of expressions, project work that draws on knowledge and skills from several domains. Students may also visit organizations and people engaged in different occupations for insightful knowledge and skills related to potential areas of future employment.