

CHAPTER 2.4

VOCATIONAL EDUCATION

2.4.1 Secondary and higher secondary education are important terminal stages in the system of general education because it is at these points that the youth decide on whether to pursue higher education, opt for technical training or join the workforce. Educationists and experts have consistently recommended that education at these stages should be given a vocational bias to link it with the world of employment. The D.C. Kothari Commission, the recommendations of which form the basis of the 1968 National Policy on Education, felt that it should be possible to divert at least 50 per cent of the students completing Class X to the vocational stream, reducing the pressure on the universities and also preparing students for gainful employment. The vocational education scheme at the 10 + 2 stage came into existence in the late 1970s. However, only a handful of states and Union Territories took the lead in imparting vocational education.

2.4.2 The National Working Group on Vocationalisation Education (also known as the V.C. Kulandaiswamy Committee, 1985) reviewed the Vocational Education Programme (VEP) extensively and developed guidelines for the expansion of the programme. Its recommendations led to the initiation of the centrally sponsored scheme on Vocationalisation of Secondary Education in February 1988.

2.4.3 The scheme is being implemented through the state governments/ Union Territory Administrations in the formal sector and non-government organisations (NGOs) in the non-formal sector. The main objectives of the scheme are to enhance individual employability, reduce the mismatch between demand and supply of skilled manpower and provide an alternative for those pursuing higher education without particular interest

or purpose. During Ninth Plan, a Plan outlay of Rs. 100 crore was provided under the scheme.

2.4.4 In the formal sector, the state governments implement the scheme at the +2 stage through approximately 6,700 schools. More than 150 courses are offered in six major disciplines: agriculture, business and commerce, engineering and technology, health and para medical services, home sciences and humanities. The ministry of human resource development (HRD) has taken up with the Department of Economic Affairs, in the Ministry of Finance the issue of nationalised banks and finance companies providing soft loans to help those who have completed vocational education to set up their own enterprises.

2.4.5 In the non-formal sector, the scheme provides assistance to NGOs for taking up innovative programmes for promotion of vocationalisation of education on a project basis. A total of 168 NGOs have been financially assisted since the initiation of the scheme for taking up these projects which help rural unemployed youth and school drop outs.

2.4.6 Funding of the various programmes in the scheme is shared by the Centre and the states. The central government gives 100 per cent assistance for 11 components. These include apprenticeship training, district vocational surveys, textbook development workshops, instructional material subsidy, resource persons training, workshop/ laboratory building, equipment to schools, teacher training courses, curriculum development workshop, etc. Fifty per cent assistance is given to the states for five components. These are vocational wings at state Directorates of Education, SCERT vocational wings, district vocational wings, provision of raw material/contingency funds and field visits by

students. The Centre provides 75 per cent of the expenditure on vocational school staff while the state governments fund the remaining 25 per cent. The states have to completely finance the expenditure on conducting examinations and providing vocational guidance.

2.4.7 The Pandit Sundarlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal, under the NCERT, provides research and development support and training to key stakeholders from states/Union Territories. The Institute draws up the curriculum in the major areas of agriculture, business and commerce, engineering and technology, health and para-medical services, home science etc for courses of one to two years' duration for adoption by the SCERTs.

Issues of concern in vocational education

2.4.8 The vocationalisation of education at the secondary stage of schooling has achieved only partial success. The students prefer general courses – like science, arts or commerce at the +2 level and later in tertiary sector of education. They constitute the bulk of the 60 million educated unemployed youth in the country. On the other hand, the country requires technical and skilled manpower particularly in view of the liberalisation of the economy in recent years. There are immense opportunities for trained manpower in a developing economy like India's, especially in the agriculture, manufacturing and social services sector. A properly planned and effectively implemented vocational education system will enable the unemployed youth to take up some useful employment.

2.4.9 The scheme was evaluated by Operation Research Group (ORG) in 1996 and also by the NCERT in 1998. Some of the important findings of the ORG evaluation are: -

- (a) States are according low priority to vocational education;
- (b) The Directorate of School Education, by and large, are found to be working in isolation with little interaction with other relevant departments;

- (c) State governments are reluctant to appoint full-time teachers because they are worried about taking on a long-term committed liability, in case the scheme is discontinued.

2.4.10 Some of the important recommendations of the NCERT Evaluation of 1998 are: -

- (a) The vocational courses should be provided in general schools in active partnership with industry and in close collaboration with the block level vocational institutions (BLVI) that may be established in rural areas.
- (b) The vocational stream should be treated like the arts, science and commerce streams and students passing out from this stream at the +2 stage should have direct access to the tertiary stage in a related discipline.
- (c) The National Curriculum Framework of the NCERT should be restructured to give due emphasis to work experience, pre-vocational and generic vocational competencies at various levels of school education.
- (d) Full time teachers must be appointed on a regular and permanent basis as in the case of the academic stream.
- (e) All vocational courses at the +2 level must be covered under the Apprenticeship Act, 1961.
- (f) The large infrastructure in polytechnics and the +2 vocational wings in the higher secondary schools, besides those of various departments and NGOs should be reviewed for optimal utilisation of facilities in the existing vocational education programme.

2.4.11 Keeping in view the growing problem of unemployment, the Planning Commission constituted a separate Working Group on Vocational Education for the Tenth Plan in 2000. In line with the recommendations of the working group, the

centrally sponsored scheme is proposed to be recast in the Tenth Plan with the following features.

- The vocational courses in schools should be competency-based and in modular form with a credit transfer system and provisions for multi-point entry/exit.
- There is a need to establish linkage between vocational courses at the +2 level and courses at the university level. The present admission criteria for entry into vocational courses at the graduation level also needs to be changed.
- The existing scheme should be strengthened by involving industries through memorandums of understanding, in designing of the course, development of the curriculum, training of faculty/students and certification of the courses.
- In order to sustain the scheme, schools may consider charging fees and the courses may be designed on a self-financing basis.
- The apprenticeship training facility needs to be utilised fully and made compulsory. To achieve this, the placement of those who have completed vocational studies for apprenticeship and training should be decided by the Board of Apprenticeship Training immediately after the results of the +2 examinations are declared.
- Before vocational courses are started in schools, local business and industry should be closely involved in studying the need and for conducting district vocational surveys.
- Facilities for running vocational courses should become mandatory for the Kendriya Vidyalaya and Navodaya Vidyalaya school systems.
- Persons with disabilities should be given special treatment while designing vocational courses and their needs and integration into courses should receive appropriate attention.
- Financial assistance may be provided under the scheme for creating testing and certification systems in states in co-operation with user bodies and professional associations.
- The All India Council for Technical Education's (AICTE) vocational education board needs to be reactivated for providing technical support to the school system and for establishing linkages with other technical institutions.

2.4.12 The Steering Committee on Secondary, Higher and Technical Education set up for the Tenth Five-Year Plan recommended that the vocational education at the secondary school level, polytechnic education and Industrial Training Institutes (ITIs) should come under one department of the state government for better networking, linkages, focused targeting and optimal utilisation of resources.

2.4.13 An outlay of Rs. 350 crore has been allocated for the Centrally-sponsored scheme of Vocationalisation of Secondary Education in the Tenth Plan.

INDUSTRIAL TRAINING INSTITUTES

2.4.14 At the national level, the Directorate General of Employment & Training (DGE&T) in the Ministry of Labour is the nodal department for formulating policies, laying down standards, conducting trade testing and certification, etc. in the field of vocational training. Vocational training being a concurrent subject, the responsibility is shared by the central and state governments. At the state level, the concerned State Government departments are responsible for vocational training programmes.

2.4.15 Starting from 54 ITIs in 1953, the number of functioning ITIs institutes has gone up to 4,274 (1,654 in the government sector and the remaining 2,620 in the private sector). The seating capacity has progressively risen from 10,000 to 6,28,000 at present. The Apprentice Act, 1961, was amended from time to time to regulate the programme of training of apprentices. The Central Apprenticeship

Council advises the Government on policies, norms and standards in respect of the apprenticeship-training scheme.

2.4.16 The Apprentices Act serves a dual purpose – firstly, to regulate the programme of training apprentices in industry to ensure that it conforms to the syllabi, period of training etc. prescribed by the Central Apprenticeship Council; and secondly, to utilise fully the facilities available in industry for workers. As on 31 March 2001, over 17,800 public/private sector establishments were covered under the Apprenticeship Act and the number of seats allocated were 2.20 lakh, out of which about 1.58 lakh seats were utilised.

2.4.17 The Craftsmen Training programme relates to theoretical training on any area of craftsmanship with little exposure to practical training. This training is being imparted in 43 engineering and 24 non-engineering trades in order to reduce unemployment among the educated youth by equipping them with suitable skills for industrial employment.

2.4.18 Skill development and employment services, as in the past, continue to be provided to vulnerable sections with special needs like women, SCs/STs, and persons with disabilities, including disabled ex-servicemen. To provide training facilities to women so as to enhance their participation in industry as skilled workers and/or to help them in acquiring skills for taking up self-employment, income-generating activities, training programmes, exclusively for women, are being provided through the National Vocational Training Institute (NVTI) and 10 Regional Vocational Training Institutes for Women (RVTI). The present training capacity of these Institutes is 2,068 seats. In the state sector, there is a network of 231 ITIs. exclusively for women, besides 534 Special Wings for Women in general ITIs with 46,750 seats, offering craftsmen training in various engineering and non-engineering trades.

2.4.19 In spite of the available infrastructure and facilities, skill development and training in the country is highly inadequate. Every year 5.5 million

students pass out of Class X, of which 3.3 million go to Class XI, leaving 2.2 million out of the education stream. There are, besides, those who drop out after Class VIII, who number 19 million. These are the people who look for vocational training and self-employment avenues. Therefore, attention has to be paid to this 21 million-target group. As against this, available formal training capacity of the country is only 2.3 million students, which leaves a gap of 18.7 million. The ITI system needs to be revamped to fill up this gap. Further, there is an urgent need to look into training of trainers as only 40 per cent of the 55,000 instructors have undergone a full instructor-training course.

2.4.20 Besides these initiatives of the Ministries of Labour and Human Resource Development, there are several other programmes and activities under the purview of different Departments/Ministries. These include Ministry of Rural Development, Department of Women and Child Development, Ministry of Industries, Khadi & Village Industry Commission, etc. All these programmes largely cater to the needs of the informal sector in a limited manner and need to be expanded to meet the emerging needs.

THE PATH AHEAD

2.4.21 The growing problem of unemployment among the youth requires a recasting of the entire vocational education scheme. Future policies on vocational courses must revolve around the following issues:

- There is a need to sensitise state governments and Union Territory Administrations on the importance of skill training/vocational education in the context of the problem of unemployment.
- There is an urgent need to cater to the Class VIII pass-outs whose numbers will swell with success of the Universalisation of Elementary Education and the Sarva Shiksha Abhiyan initiatives.
- There is need for careful assessment of the stage at which the trades of Fitter,

Turner, Blacksmithy, as also courses like Accountancy, Typing, Book-keeping and Secretarial practices are to be introduced.

- The duration of various vocational courses also needs to be carefully assessed.
- There is also a need for vertical mobility in the vocational stream. Students who complete +2 in a particular stream should be able to specialise and obtain diplomas and degree certificates so as to get value-added jobs and better employment opportunities.
- The vocational courses should be demand and need-based, keeping in mind the constantly changing requirements of technologies/industries. Vocational courses must have an in-built flexibility to allow students to switch courses with changes in demand patterns.
- The existing scheme should be strengthened by involving industries through MoUs in the designing and certification of courses and training of students and faculty.
- At present, most of the vocational courses are in the manufacturing sector. Given the slow growth in this sector and the exploding opportunities in the services sector, vocational courses should concentrate more on the latter.
- There should be focus on convergence of schemes like the Sarva Shiksha Abhiyan, Adult Education, and Vocational Education Programme at schools, ITIs, polytechnics, community colleges etc.
- There is a need to have a re-look at the vocational education scheme given the

fact that a number of districts in Uttar Pradesh, Bihar, Haryana, Rajasthan and Madhya Pradesh have a poor industrial base.

- The syllabi of vocational subjects should be updated on a regular basis to keep pace with changes in technology. This is specially relevant in trades like food processing, dairy technology, leather and tanning technology, etc.
- Vocational institutes should also be networked with professional institutes like the Central Food and Technology Research Institute (CFTRI), Mysore, Central Leather Research Institute (CLRI), Chennai etc. to keep abreast with technological developments.
- The vocational education scheme should focus on the capacity of the local industry to absorb students of a particular trade. Excess supply of students of a particular trade needs to be avoided. In this context, there is need for diversification even within a trade.
- Urgent attention needs to be given to training vocational education teachers.
- There should be regular exchange of ideas/skills among vocational education teachers, master craftsmen and trainees.
- The apex industry associations like the Federation of Indian Chambers of Commerce and Industry (FICCI), Associated Chambers of Commerce and Industry (ASSOCHAM) and Confederation of Indian Industry (CII) need to be involved to a greater extent in the implementation of vocational education programmes and imparting of skills.

