

CHAPTER III: VOCATIONALISATION OF EDUCATION:

A GLOBAL PERSPECTIVE

- › The chapter, gives an overview of the Vocational Education Programme of selected countries in the world.

as vocational schools are seen inferior to general schools. The annual students output is of order 2, 65,000 while in UK is 24,000.

D.P.Singh (2000), stated that vocational education attempts to nurture values in the learners along side skill learning though the practical conducted in schools, through OJT and apprenticeship training in an industry. In the process of such training, the learners imbibe some values and qualities such as cooperation, sincerity, tolerance, discipline, work ethics and dignity of labour. He claims that a peaceful society and environment is achieved with employability of rich human resources through effective value based vocational education.

M.P.Khond (2003), voiced out the need autonomy, in order to enhance the quality of Technical Education. He was of the opinion that institutes are totally structured and protected by Government rules and regulations. According to him the present system doesn't give scope to students to enjoy academic freedom to express and defend their opinions. With the present system, students don't feel the need to be creative and innovative as the procedures are simple to follow. Institutes offer the course curriculum of the university that results in the under-utilization of resources and human capabilities. He is of the belief that autonomy in education will bring about new programmes, new approaches and aim towards attainment of excellence. Institutions will then attract good faculty and students as autonomy would lead to competition and improve quality in education. It would help in the development of skills and expertise in a particular field.

CHAPTER III

VOCATIONALISATION OF EDUCATION: A GLOBAL PERSPECTIVE

3.1 Introduction: An International Understanding:

The development of training and education in vocational education is assuming importance the world over. There are similarities as well as differences in approaches towards the implementation of the vocational programme in different countries. While all governments seem to recognize the importance of Vocational and Technical Education & Training especially in the current context of rapid technological advancement and intensified global economic competition, the policies they have adopted to achieve this vary widely from country to country. The third chapter, gives an overview of Vocational Education in selected countries internationally and a more detailed study of selected states within India.

It has been observed that levels of industrialization are different in different countries and industrialization also varies from one region to another within a country. Hence, the applicability of curriculum may have a problem of mismatch due to low- placed industrialization, the need for upgrading the curriculum or non - availability of appropriate industrial facilities in certain regions. Keeping in mind the objectives of the study, this chapter was restricted to only throwing a brief overview on Vocational Training and Education in selected countries in the world. This chapter does not provide arguments for the superiority of any particular system or for the advisability of any one country trying to adopt the system of another. Nor does it make a comparative study of the vocational programme between countries. It only provides an understanding of vocational education in other countries as this would give an idea on the functioning of the vocational programme in other countries and also throw an insight into solving

problems related to the programme not being very competitive in India. The countries included in the study however, study the Technical and Vocational Education & Training as a holistic area of study.

3.2 Federal Republic of Germany:

3.2.1 Social and Educational Background:

The Federal Republic of Germany is a creation of the decade after the Second World War. With an exception of West Berlin, which is an outlier embedded in East Germany, its territory is contiguous and is made up of 11 *Lander*, or states. Its economy is predominantly an industrial one, based on coal-mining, iron and steel, machine construction, electrical and metal products and the processing of food stuffs.

The Federal Republic today is a stable democracy with a federal constitution which lays down the division of power and responsibility between the Federal Government in Bonn and the administrations within the eleven *Lander*. Thus, the federal constitution bestows upon the latter 'cultural sovereignty' which, as far as education is concerned, gives them primary responsibility for the provision of primary and secondary schooling, with the partial exception of vocational education. In the late 1960s a Federal Ministry of Education and Science was established. This system of government characterized little change from the past as West Germany had not had a centralised and uniform education system before. However, it is necessary to understand that each *Land* had a highly centralised power structure which applies to education equally with other aspects of provincial government. In general, West Germany was a very systematically organized society in which detailed laws govern most aspects of economic life as well as educational provisions.

Educational background:

The basic school system is broadly similar across the country and is divided into three stages: the primary, lower secondary, and upper secondary school. The primary school, or *Grundschule*, comprises Grades 1 to 4, i.e. they enroll students of ages 6 to 10 years. The system differs only in West Berlin and Bremen where it covers Grades 1 to 6, that is from 6 to 12 years. Once the students have completed their four years of primary school, they move on to three types of selective secondary schools: the *Hauptschule*, the *Realschule* or the intermediate school, and the *Gymnasium* or grammar school. Besides the above three mentioned Secondary schools, in a few of the *Länder*, there are also comprehensive schools, *Gesamtschulen*.

In addition to the four types of public secondary schools described above, there is also a variety of Special Schools which cater, for instance, for physically or mentally handicapped children. In addition, there is a relatively small private sector of education as well.

3.2.2 Vocational Education and Training in the Federal Republic of Germany:

West German schools also provide a lot of pre- vocational instruction in the form of programmes known as *Arbeitslehre*, or Education for Work, which have been introduced in schools. However, these programmes have been confined to the *Hauptschule* and *Gesamtschule*. They include a period of work experience and are designed to provide job- specific training. They promote in making young people aware of the nature of employment and also of their role in home and in society at large. Vocational education and training of youngsters to produce skilled workers takes place once they have completed their general education at school.

The system of VE and Training in the Federal Republic (West Germany) is one which had always attracted a great deal of attention from educational observers the world over. The initial system of VET in western Germany was predominantly work- based. Initially based on the traditional apprenticeship model, the German Dual System had evolved into a highly organized national system of mass VET. The majority of young people (over 60 percent) usually entered an apprenticeship on leaving school, which they usually complete at ages varying between 15 and 19 years, depending on whether they have been studying at the *Hauptschule*, the *Realschule* or the *Gymnasium*. These students sign an apprentice contract with a firm licensed to provide training and therefore for a duration of between two and four years, spend part of their week (usually 3 days) in work – based training under the guidance of trained instructors called *Meisters* and part of their week in the *Berufsschule* studying general subjects and learning the theoretical aspects of their vocation. The vast majority of these usually over 90 percent obtain their certificates of vocational competence at the end of the training period and are then qualified to enter full employment either with their initial employer or else where.

The Dual System:

The Dual System is a very organized system of Vocational Education and Training and is preferred by most youngsters now a days. Under this system, students join as apprentices and they combine On- the job- training in industry with part- time compulsory attendance at vocational schools until the age of 18. There is also another system has gained popularity among students wherein students have to put in attendance at full- time vocational schools.

The Dual system is admired as a classic way by which the majority of West German school- leavers enter into vocational training programmes. It is

characterized by two major features which distinguish it from most vocational training systems in other countries. Firstly, training is split between two instructing parties: the Employer and the School. For one or two days a week students attend state vocational schools (*Berufsschulen*), where they combine general education with the theoretical foundation of their vocational subject, and for the rest of their working week they acquire practical skills at their place of work. Secondly, here vocational training takes place to a considerably greater extent in the workplace than in school.

The success of this system depends greatly on the co-operation of four major parties: the Federal Government, the *Lander* Governments, the employers and the trade unions. Under the Dual System, the youngsters are being trained in about 450 different trades under 13 broad categories. The training programmes which apprentices undergo are usually of between three to three and a half years duration, though a large number of occupations require only two years of training. Depending on the successful passing of examinations, apprentices at the end of their training programmes are qualified as skilled or white – collar workers. Majority of the training takes place in the industry and is governed by a series of federal laws and regulations. The bulk of the costs of training within the Dual System are borne by the firms with whom trainees sign a contract which guarantees them employee status. These costs include those of providing instructors, training workshops, machines, and materials, and the remuneration of the trainees.

The success of the Dual System also depends upon the quality of the training which is delivered, which in turn depends upon a sufficient supply of well trained instructors. The training of instructors is therefore taken seriously here. Instructors are required to pass an examination in order to be qualified to train

apprentices. They are expected to have personal experience of industry and business.

A major cause of concern however, is the increasing number of firms involved in vocational training view their trainees as a form of cheap labour. The Federal Government has to extend relaxed conditions governing entry qualifications there by increasing the likelihood that some firms will exploit their trainees. Equally important is the need to make provisions for the retraining and further training of trained employees, to keep up with changes in technology and reducing the likelihood of them being affected by unemployment.

3.3 United Kingdom:

3.3.1 The Social and Educational Background

The United Kingdom is a relatively wealthy country, the majority of whose people enjoy a high standard of living. The concern with the country's wavering economy had led the government to promote a national system of vocational education and training, identifying a close link between an effective training system and an efficient economy. Way back in the 1960's , in its early stages this system was not working very well, and industry required more stimulus and incentive to provide training on a national scale. The outcome of this was the passing of the 1964 Industrial Training Act, which provided for the establishment of Industrial Training Boards (ITB's) for industries which together then employed about half of the country's work force. It was by then well understood that if the productivity and competitiveness of the British industry was to be maintained, it will require a steady supply of skilled personnel and this in turn would depend on effective training schemes made available both for young people and unemployed adults.

Educational Background:

The structure of educational institutions in the United Kingdom can be divided into three sectors: Primary, Secondary, and Further Education. Children attend primary schools from 5 to 11 years of age, and secondary schools from 11 to 16 years. At age 16, they may stay on in full-time education in schools until the age of 18 or transfer to a Further Education College for the same purpose. In either case, the education provided to the student remains free.

There is also the 'Middle School' that is introduced whereby children attend Primary schools from 5 to 8 or 9 years, Middle schools from 8 to 12 years, or 9 to 13 years of age, followed by Secondary Schools thereafter. In the United Kingdom, there are also Secondary schools that were considered to be the academically able and 'modern' schools for the majority of youngsters. However, these selective schools have very largely given way to comprehensive secondary schools. These comprehensive schools predominate throughout the country and were attended by more than 90 per cent of the Secondary school population. Alongside this school system, there is also a small but influential private sector which consists of the best known institutions called the 'public schools', though in reality they are not public, but private institutions.

3.3.2 Vocational Education and Training in the UK:

Vocational education and training (VET) is frequently seen as one of the weakest areas of the educational system, in England and Wales. The system has usually suffered from lack of reputation. The reasons for this are many but most of the explanation for this can be linked to historical traditions of *laissez-faire* which goes back deep into history. Throughout the first half of the twentieth century vocational education and training continued to lag behind. Part-time

enrollments in technical colleges grew steadily, but those opted for post-compulsory technical schooling were fewer. UK experienced great difficulty in order to break the status monopoly of academic secondary schooling despite periodic attempts made to develop technical secondary schooling. It was in the beginning of the 1960's when there were renewed skills shortages and the youth finally convinced government that policies on vocational training had to change.

The curriculum in the British schools is much like that in comparable school systems throughout the world. They consist of a broad range of academic subjects, which narrow down to fewer specialized subjects as the student reaches post-compulsory period of schooling which is at the age of about 16 to 18 years. The curriculum available in the British schools used to be initially basically a more academic one, though later the government directed it towards a broad vocational direction by using means such as the Technical and Vocational Education Initiative (TVEI), where children had to undergo vocational studies in the secondary school in order to provide a bridge with the world of work. Hence it can be said that vocational education is introduced to the students at the secondary school stage.

On completion of Compulsory education at 16 years of age as most students do, the students have an option of either joining a College of Further Education to undertake full-time study for either gain Vocational or general qualifications; or they may enter full-time employment, with or without part-time study at the Further Education colleges. Yet another option open to those that remain unemployed, is that they can enter the two-year Youth Training Scheme for unemployed school-leavers.

Non-Advanced Further Education (NAFE):

Non-Advanced Further Education (NAFE) has traditionally been the major provider of vocational training along with industry and business, in the United Kingdom. It has been found that there are many students undertaking courses of non-advanced further education leading to recognized qualifications, which are either vocational or academic. The male and female students ratio however varies widely depending on the courses. It has been observed that areas such as construction, engineering, agriculture and science are dominated by males. While, females are found to be in majority in courses like secretarial studies, beauty therapy, hair dressing, fashion, hotel reception, and travel and tourism.

The usual pattern of non-advanced further education has been that a substantial proportion of youngsters that leave school and enter employment to be released by their employers on a part-time basis, either through 'day' or 'block' release, in order to undertake a College course leading to a vocational qualification. Many of the young men who acquired skill training in this way did so as part of their apprenticeship programme. In addition, in some areas like that of training for employment as secretaries and in the catering trade, many youngsters attend a pre-employment full-time course at the Further Education Colleges.

While this system, by which young people in employment can obtain vocational qualifications mainly by part-time study in further education colleges, is still in operation, there have been substantial developments which have radically altered the traditional College role as well.

3.4 United States of America:

3.4.1 Educational Background:

The structure of the school system in the United States slightly varies from state to state. The precise duration of compulsory schooling in the US is nine years, i.e. from ages 7- 16. Although it somewhat varies from state to state. In some states it runs from ages 6 – 15 years, preceded by kindergarten. Perhaps the most common pattern is the '6-3-3' form, that is six years of elementary (or Primary) school from ages 6 to 12, followed by three years of Junior High School, and three years of Senior High School, to age 18. The other two patterns are '8-4', eight years of Elementary school and four years of High school; and '6-6', i.e. six years of Elementary school, followed by six years of High School. Whatever the form of school organization, Vocational Education is an integral part of Secondary Education and is available to all students.

3.4.2 Vocational Education and Training:

Origin of Vocational Education in the United States:

It was way back in the 1800's with technological changes taking place very rapidly in America, the original apprenticeship system was felt too long and slow. As America became more and more industrialized, the need for skilled men who can do the job faster was urgently felt. This gave rise to Professional schools in Agriculture and Mechanics. Significant changes were seen in Vocational Education as a result of the Vocational Education Act (VEA), 1963. Since then, there has been an increase in the number of vocational schools. The opportunities for the youth in terms of courses and better opportunity for them to interact with the world of work had drastically improved. There continues to be a greater concern among educationalists and industrialists for the development of skilled and knowledgeable people to fulfill the countries wide varied and fast changing industrial needs.

Vocational Education and Training:

The main distinguishing feature in the current picture of American provision of Vocational Education and Training would be that of the publicly- and the privately-funded provision. The Publicly funded provision consists of separate systems which co-exist and, to a degree overlap. On one hand, we see the traditional Vocational Education offered mainly by the Public Schools and the Community Colleges, funded very largely by the States themselves, with some Federal assistance. These institutions provide the great bulk of such training. On the other, there are various manpower-training programmes which respond to specific social and economic needs, and which have developed since then into Institutions largely distinct from the Public Schools and Community Colleges. These programmes were funded by the Federal Government.

The institutions fall mainly into three broad groups: High Schools, Area Vocational Centers, and Post Secondary Institutions including Community Colleges. The largest number of institutions offering programmes of Vocational Education in the country were the Public High Schools. The great majority of these are general, Comprehensive schools offering a wide range of courses, of these only a percentage were vocational, which specialized and offered only vocational programmes. Community Colleges also offered a variety of programmes. The second major group of students seeking vocational education consisted of those undertaking one-year fulltime courses sometimes linked to Apprenticeships, which lead to the award of certificates in a wide variety of vocational and technical courses.

Vocational programmes are offered to students studying right from High Schools in grades (class) 9 and 10 and above. The programmes offered by the High schools are usually classified into two categories: *General vocational*

programmes, and *Occupational-specific programmes*. The former are commonly available in grades 9 and 10, i.e. to students of 14 and 15-years of age. These courses include pre-vocational courses designed to introduce students to broad occupational areas such as agriculture or business. They also include subjects like Typing, Home Economics, and Industrial Arts, Craft, Design and Technology. Most American High school students undertake one or more of these general vocational courses. The others take up courses that are Occupational-specific which are generally provided to students of eleventh and twelfth grades (aged 16 and 17). These courses prepare the students in a particular occupation such as Computer Programming, Motor Mechanics, Electronics or Practical Nursing.

The aim of these courses is to develop in students in what they called 'entry level proficiency', which will enable them to make a beginning in an occupational field. As far as the students themselves are concerned, their reasons for undertaking vocational programmes are many and varied: they may have a genuine liking and aptitude for them, they may presume that they will enable them more easily to secure a job, some may wish to please their parents, and others may simply stay on at high school after school-leaving age, whether on academic or vocational courses, or both, to enjoy a more vigorous social life, or to avoid the physical dangers of street life in some of America's large cities.

In some places, classes in the Vocational High Schools may either contain high school students and adults separately, or mix them together. A small proportion of these vocational high schools have acquired excellent reputations, especially those in the large cities which recruit students across a large area and develop reputations for excellence in certain specific vocational areas. Many of

these student graduates were found to then move on to courses in vocational subjects in high quality Colleges and Universities.

With a shortage of trained youngsters entering employment, more emphasis had to be placed on increasing the proportion of training provided to young people. The increasing rate of technological changes in the United States would certainly require a great increase in the provision of updating and retraining specific vocational programmes for adult workers. The retraining of adults in specific vocational areas is equally important as that of training of individuals in vocational courses. In meeting these challenges, the American system of Vocational Education and Training has certain assets. Its biggest plus point is that it has both flexibility and vitality and allows a great deal of scope for individual initiative. Industry and business too are committed to a considerable investment in training. The institutions of vocational education and training are able to respond quite quickly to the perceived needs of the labour market, this is done with more ease by the Private training schools more than the Public ones. These offer a wide range of excellent programmes and are scattered across the country. On the other hand, the public sector of vocational education and training, comprising the High schools and the Community colleges, has in most states been passing through a difficult period in recent years. As the problem goes on in all other countries, the United States also faces the same problem where states have placed increasing emphasis on Academic excellence at the expense of their Vocational education.

3.5 Japan:

3.5.1 Educational Background:

In Japan, schooling starts at age 3, wherein children between age group 3 – 5 years attend preschool. This is followed by compulsory elementary schooling

for children of age group 6- 10, followed by compulsory Lower Secondary School or the Junior High School for children of age group between 11 to 14 years, followed by the Upper Secondary School or High School education attended by students of age group 15- 18. On completion of High School, students have the option to join Miscellaneous Schools, Special Training Schools, Junior College or even the Technical College. For the vast majorities that stay on at school after 15, two types of High school are available: General and Vocational.

3.5.2 Vocational Education and Training:

The lion's share of vocational education and training, some three-quarters, is provided by industry. Of the other quarter, some is provided by educational establishments, public or private, approved by the Ministry of Education; and some is made available by institutions run or approved by the Ministry of Labour; these comprise vocational courses in upper secondary schools, technical colleges, and special training and miscellaneous schools and the latter, consist of vocational training centers, vocational training colleges and skill development centers. In addition, the Ministry of Labour runs the Institute of Vocational Training which plays a very important role in training Instructors for both public and private institutions, and also for industry.

Vocational Education at the School Level: Courses in vocational education and training are provided within the education system principally by Secondary Vocational Schools that is upper Secondary Schools catering for students of 15 to 18 age range. Most of these schools offer exclusively vocational courses, while others offer both vocational and general courses. The upper secondary school courses are available on the basis of part-time study, and by correspondence, in which case they last for four years or more. However, the vast majority of students undertake full-time vocational courses. Vocational

schools and courses are classified into six major fields: Technical (or industrial), Commercial, Agriculture, Fisheries, Home economics, and Nursing. The largest numbers of students are found undertaking Technical or Commercial courses. As goes the trend in other countries, in Japan as well Technical courses were found to be dominated by boys while the Commercial courses consisted of mainly girls.

The vocational Secondary Schools clearly play an important part in training personnel for Japanese industry and business, at what can broadly be described as training for technician and craft levels. On the other hand, having successfully completed a vocational course, those who wish to enter a job immediately have little difficulty in obtaining a suitable post. It may be either with a large firm or corporation, which requires them then to undertake their own training programmes, or with the smaller firms who find it more difficult to provide specialized training, and so rely more heavily on the vocational education and training provided by the schools.

Technical Colleges and Special Training Schools: In addition to the secondary vocational schools; the Ministry of Education is also concerned with vocational education and training in two other types of institutions, Technical Colleges and Special Training Schools. The system of technical colleges had a basic purpose and that was to help meet the needs of industry. These technical colleges are successful and produce well-trained graduates who are much sought after by industry.

Special Training Schools and Miscellaneous Schools: Far more numerous than the Technical colleges as providers of vocational education and training, very largely privately run, are the Special Training Schools and Miscellaneous

Schools. They offer courses in a wide range of vocational subjects such as Automobile driving, Book keeping, Dressmaking (both Japanese and western), Cooking, Foreign languages, and the use of the Abacus which is still widely employed in Japan. Their popularity has greatly increased because they seem to offer better prospects of employment than a general course in a university or junior college. Especially for men, these courses offer one of the few avenues outside direct employment of obtaining job-specific vocational training.

Difficulties faced by the vocational programme in Japan: The difficulty faced by vocational schools in Japan is that they are considered to be inferior to the general schools by parents and because of this morale in them has undoubtedly suffered. Partly for this reason, they have found it difficult to recruit sufficient number of good teachers of vocational subjects. This is a problem that is not only restricted to Japan but is common to similar institutions throughout the developed world.

There is however a clear differentiation between schools, not just between general and vocational secondary schools. In any given locality certain schools, whether public or private, will be more highly sought after, especially those which are regarded as providing an entry into the better institutions of higher education. There are also, inevitably, considerable differences in standard between different parts of the country. With the greatest differences between the towns, which attract the best teachers, and are very highly paid, than the remoter rural areas.

Training provided by Industry: As part of the distinctive Japanese employment system, many companies offer Firm- Specific Training to upper and lower Secondary School graduates. The hiring of inexperienced young

workers straight from schools is favored by most employers because they can choose the best students and train them in their own way. The internal training system in large Japanese firms is based on the recruiting of a group of mostly male graduates before the end of the year and the offer of a training programme suited to each level. Based on age and seniority system, and career-long employment, they are aimed at training the workers in specific production and management techniques of the company. In fact vocational training in neither Upper Secondary Schools nor in Public Training Centers has been able to replace specific enterprise training.

3.6 India:

3.6.1 Educational background:

Schooling in India starts with preschool at age 3, wherein children attend 2 years at preschool. This is followed by Primary schooling for children followed by Lower Secondary School or High School for children of age group between 10 to 15 years. Students then attend two years of Higher Secondary School (HSS) where students are of age group between 15- 17. Students on completion on High School (Class X) diversify to join the Arts, Science or Commerce Streams at the Higher Secondary Level. Students also have to option to join some Technical courses in ITI's and Polytechnics.

At the HSS students have the option to either join the Vocational Stream or the General Stream. The General Stream offers academic subjects specially designed for students that want to pursue Higher Education. While the Vocational steam curriculum was designed to help students seek some kind of training while studying so as to enable interested students to take up gainful employment on completion of the course. On completion of High Secondary School, students have the option to join Professional Colleges, or the Degree

Colleges offering the Bachelor of Arts (B.A.), Bachelor of Commerce (B.Com.), and Bachelor of Science (B.Sc.) degree courses. At the Degree level, students again have to option of getting their degree in the General stream of with some Vocational Subjects. On completion of College, students can go in for Post Graduate Degree and Diploma Studies offered by various Colleges and Universities.

Besides the above mentioned, there are also many private Institutions offering Specialized courses, and Open School for students of special needs.

3.6.2. Vocational Education and Training in India:

In India vocational and technical education is offered by Polytechnic's, ITI's and several Government and private run institutions. It is also offered by very specialized and reputed Engineering Degree Colleges and IIT's. The study on Vocational Education and training in India in this study, is however limited to the Vocationalisation of Education Programme in HSS and Colleges introduced by the Kothari commission (1977) at the HSS level and the UGC approved courses at the College level (1991). Vocational Education and Training in India is seen in a more comprehensive form in Chapter one.

This chapter on VEP in India also gives an overview of the VEP at the HSS level in few selected successful states in India. Given below are details on the Management Structure and the role played by various agencies in the VEP in India. The management structure for the VEP is at four levels i.e. at the National level, State level, District level and at the Institution level comprising of the SAC and the Principal incharge of the institute.

3.6.4 The Management Structure of Vocational Education Programme at the HSS level is given below:

National	JCVE, CIVE
State	SCVE, SIVE/SCERT, Directorate of Education
District	DVEC
Institution	SAC, Principal

3.6.5 Role and Functions of Different Agencies:

Joint Council of Vocational Education (JCVE)

JCVE, an apex body under the MHRD with representation from all existing vocational authorities/councils is essentially entrusted with the task of bringing about effective coordination of the concerned agencies for implementation of the vocational programme. The JCVE will perform the following functions:

- To provide legal/statutory support for the OJT.
- To identify governmental and non-governmental organizations to elicit the support for implementation of the OJT.
- To review the OJT programme periodically and suggest the remedies.
- To decide upon the recommendations for financial support to implement the OJT.
- Bureau of Vocational Education (BVE)

Bureau of Vocational Education in the MHRD will provide secretarial support to the JCVE to administer the vocational programme including the OJT through the following functions:

- To devise strategies for implementation of the recommendations of the JCVE.
- To execute the JCVE decisions through coordination with concerned Union/State ministries and employers associations.
- To keep linkages with the national, regional and state level agencies.

- To provide financial support for implementation of the OJT.
- To monitor the OJT programme.

Central Institute of Vocational Education (CIVE)

CIVE, a nodal agency at the national level is to be set up in the NCERT to function as the apex level research and development institutions. Besides other functions, CIVE will be entrusted with the monitoring and evaluation of the OJT programme. It will also provide consultancy to the states in this regard. The specific functions of CIVE will be as follows:

- To prepare guidelines on various aspects of the OJT.
- To ensure comparability in quality and standard of the OJT throughout the country.
- To develop audio and video programmes and print materials for effective implementation of the OJT.
- To collect feedback on the programmes through seminars, symposia and studies.
- To organize orientation programmes for state level officials.
- To evolve an information system for the OJT.
- To provide academic/technical support to JCVE and MHRD regarding OJT.

Role of Boards for Apprenticeship Training:

Since the Boards of Apprentice Training are the regional agencies in their respective regions for implementing the Apprentices Act in respect of vocational students it could also play a prominent role in providing, programming and procuring training facilities for the OJT in various vocational areas.

There is a provision in the Apprentices Act to provide training under sandwich pattern for students undergoing vocational courses as part of the curriculum.

This could be profitably used for obtaining participation of various training agencies for the OJT.

State Council of Vocational Education (SCVE)

The SCVE is a high level body comprising of representatives from government departments, state and private sector organizations/associations and experts in the vocational education field. This council coordinates with various agencies at the state level with respect to vocational programme. The specific functions to be performed by SCVE are as follows:

- To develop norms for the OJT in terms of equipment, raw material and other infrastructures to achieve relevant skills.
- To take necessary steps for the promotion of the OJT programme.
- To conduct periodic reviews of the OJT programme and make necessary changes in the context of the emerging trends.
- To ensure availability of financial support for the OJT as per recommendations of the JCVE/BVE.

Directorate of Vocational Education:

The Directorate in-charge of Vocational Education is essentially vested with administrative responsibilities concerning implementation of the vocational programme. The specific functions of the Directorate will be as follows:

- To provide secretarial support to the SCVE and implement the directives of the SCVE with respect to the OJT.
- To ensure proper coordination between the State and district level Vocational Committees.
- To provide norms and guidelines to identify appropriate work stations (training establishments) for the OJT.
- To ensure timely provision of adequate funds for the OJT.

- To supervise and inspect the OJT programme.
- To provide legal/administrative support to institutions for placement of students for the OJT.
- To collect feedback on the OJT from institutions and work stations and take or suggest remedial measures accordingly.
- To keep close liaison with the national and state level bodies involved in the OJT.

State Institute of Vocational Education (SIVE)/State Council of Educational Research and Training (SCERT)

SCERT provides necessary academic support for implementation of the VE programme in the State through its vocational wing/cell. In view of the enormous task involved in the implementation of VE programme separate body in the form of SIVE is set up with the following functions pertaining to the OJT:

- To prepare detailed practical training programme to be followed by students during the OJT for each vocational course.
- To create awareness about the OJT amongst employers.
- To conduct critical studies of -the OJT programme to ensure the achievement of the envisaged objectives.
- To provide academic support to the DVEC on the matter of policies and programmes with respect to the OJT.
- To collaborate with the employers/associations for designing practical training programme under the OJT.
- To develop audio/video and print materials for effective implementation of the OJT.
- To organize orientation/training programmes for teacher, coordinators/Vice-Principals for effective implementation of the OJT.

District Vocational Education Committees (DVEC) and District Vocational Education Office (DVEO)

DVEO is the grass-root level body for implementing the VE programme in accordance with the guidelines laid down by the state level authorities. In order to have proper coordination among the various agencies for implementation of the VE programme it is proposed to set up DVEC comprising of district level officers of all government departments, employers organizations, financial institutions, professional experts, and representatives of parent-teacher associations. The important functions of DVEO in consultation with DVEC vis-a-vis the OJT are as follows:

- To coordinate strategies and collaborative arrangements for the OJT.
- To extend necessary assistance to the institutions for identification of work stations.
- To organize seminars, symposia, discussions with the various agencies at district level for motivating and increasing the acceptability of the OJT by employers.
- To monitor the OJT programme and furnish the feedback to the appropriate authorities.
- To ensure proper implementation of the OJT programme as prescribed by the Board.
- To ensure timely release of funds and their proper utilization for the OJT.

School Advisory Committee (SAC)

SAC is constituted with representation from various local agencies like DIC, Employment Exchange, employers' associations, PTA, local professional experts associated with the school and DVEO. Principal/V.P. will be the Convenor of SAC and Teacher Coordinator will work as member secretary. SAC will also include vocational teachers/instructors as its members.

The important functions of SAC regarding the OJT are as follows:

- To identify suitable work stations for the OJT •.
- To advice the school regarding proper linkages for placement of students for the OJT.
- To assist the school in organizing seminars, symposia etc. on. Job Training.

3.6.6 Vocational Education Programme in Various States in India:

Given below is a brief overview of the VEP in selected States from India:

Chandigarh:

The VEP in the state of Chandigarh was started in the year 1986- 87. It initially started with five courses and presently runs 21 courses successfully. The student's response towards the course in terms of enrollment is overwhelming. The schools in Chandigarh have made a serious effort in establishing healthy school – industry linkages. As a result of this the students response to OJT is a positive one. The VEP in the State of Chandigarh is a testimony of the fact that the model suggested by NCERT is not just implementable but is capable of achieving the stated objectives provided there is commitment on the part of the state.

Maharashtra:

The VEP in the state of Maharashtra was introduced in 1978- 79. It has been a pioneering state in the implementation of the vocational scheme right from the initial years. The programme however was catching up under the financial assistance of the Centrally Sponsored Scheme which was introduced in the year 1988- 89. The State then introduced 20 vocational courses in 169 HSS making it the state to have the highest number of institutions offering the VEP then. By the year 2001 it offered 31 vocational courses in 1076 institutions with an enrollment of capacity of 67340 students.

instructors appointed on a regular basis and offering a good salary to teach the courses. However out of the 30 courses offered, 6 were not covered under the scheme of Apprenticeship training. In 2001, 380 institutions and 2542 organisations have established the desired school – industry linkage. The process of the conduct of vocational surveys in the past indicated the adoption of rigorous planning and systematic implementation of the VEP in the state.

Karnataka:

The VEP was introduced in the state in the year 1977– 78 in 13 institutions with an enrollment of 1275 students. But after the introduction of the CSS in 1987- 88, the growth of student enrollment has increased drastically. By 1989- 90, 260 institutions introduced the programme with a student enrollment of 16000 students. Like the state of Maharashtra, Karnataka also was one of the pioneering states in starting the VEP. Here vocational courses are introduced both in Government and private institutions in phases. Some courses are progressively discontinued as the needs dwindled and new ones with more demand are added. The Vocational courses somehow experience flexibility to this extent. Studies in the year 1991, shows that about 88% of the students joining vocational courses come from lower and middle class families. And most of them join vocational courses because they want to take up employment at an early age. The institutions keep a record of past students. Here selection of students to vocational courses is done as per reservation policy of the Government, the roster system and by merit in subjects coupled with their interest in the subject and also depending on their family background.

3.4. Conclusion:

It has also been observed that industrialisation has brought about the need for vocationally trained manpower in all countries. It is also a well known fact that countries have realized the importance of vocational and education. Hence it has been introduced in most countries in the educational system, so as to expose students to the world of work.

However, a familiar problem faced by the vocational education programme in most countries is that the student and parent community considers it inferior to higher academic education and hence, the enrollments in many vocational and technical institutes is on a decline. Another familiar problem, faced in most countries offering vocational courses in schools, is that teachers of vocational education are, usually underpaid, under prepared and asked to work miracles, and, as a result, an increasing number of the best teachers are found to leave the profession. Those institutions with full time and permanent teaching staff lack flexibility in deploying staff to meet the changing demands of the marketplace for specific-skills.

Another problem identified is the enormous inequities in the quality of courses and teaching between the rich suburban high schools and the not so financially well off inner city and rural schools. Institutes are found to face the difficulty in providing up-to- date equipment for vocational courses from their relatively meager funds.

Another observation made was that of 'sex-linked enrolment patterns' for courses, with males found mostly in areas such as Trade and Industrial courses and females in Office and clerical courses.