Organisation of Curriculum at Higher Secondary Stage

3.1 Context

After ten years of general education, the higher secondary stage assumes great significance as students for the first time move toward diversification. By now the students start developing their own thinking and independence of mind. As such, they are better placed to exercise a choice of course keeping in view their needs, interests, capabilities and aptitude, which would enable them to cope with the challenges of future. They may, therefore, choose either specialised academic courses or job oriented vocational courses. For majority of students, the higher secondary stage may be the end of their formal education leading to the world of work. For others, it would be a bridge to the tertiary stage of education — academic or professional courses.

3.1.1 Higher Secondary: The Stage of Maximum Challenge

The higher secondary stage is crucial in many ways. It is the stage of maximum challenge. While the students in this age-group are passing through a critical phase of their lives — transition from adolescence to youth, they have to take important decisions concerning their future career by choosing suitable courses. In fact, more than the need and aptitude, it is the awareness and performance of the students at this stage that ultimately determines their future. Whether they would be able to get into a job or a vocation or pursue further studies of their own choice/preference, is the uppermost concern in the minds of students and their parents. It causes anxiety and stress, which may be avoided by careful planning and strategies adopted for designing suitable courses suited to their future requirements.

Normally, only a small percentage of student population reaches the tertiary level. It is from amongst these that the eventual leadership emerges. The quality of these people depends on the foundation laid in early years especially at the higher secondary stage, the products of which provide the second or intermediate level of leadership in every walk of life. They are expected to make meaningful contributions to developmental efforts in agriculture, industry, business and various other social services. Opportunities for wage employment as such are very limited. Hence, the students at the higher secondary stage must be fully equipped with basic knowledge, skills, attitude and entrepreneurship so that they can qualify for self employment as well.

3.1.2 Learners' Profile: A Stage of Transition from Adolescence to Youth

The higher secondary stage deals with human beings at a sensitive stage of transition from adolescence to youth. This stage is characterised by the process of maturity, both of body and mind. It is at this stage that abstract thinking and logic develop predominantly. Goal fixation and symbolisation are the other characteristics that mark this stage in a big way. Similarly, traits like self-consciousness, self-assertion resulting in an emergence of identity of the self-indicating personal preferences and choices, and ideal formation are typical of this stage. The students also show strong likes and dislikes, reactions and adventurism and have strong peer group influences. There is a tendency to imitate adult behaviour and roles, defiance, moral reasoning and challenging attitude towards the established ideas, practices and authority. This is also marked by an increased sex-consciousness and sexual interests.

At this stage, learners' interests and aptitudes begin to crystallise and stabilise which have a potential to shape the future occupational status of the learners. A feeling of anxiety about the future also begins to haunt them. At this stage, guidance and counselling should go a long way in sorting out such problems as in no way are unnatural.
An important feature of this stage is that it is a transition from the general and undifferentiated curriculum to courses of specialised nature. Therefore, curriculum at this stage has a hangover of general education and the challenge of specialisation, characteristic of the tertiary education. Change is the watchword at this stage of life. In order to equip the youth to cope with change in life it is essential that the cultural and ethical values are appropriately stressed and carefully cultivated. A sense of belongingness to the society and the country at large ought to be nurtured to avoid feelings of rootlessness and alienation from the society.

3.1.3 Access, Equity and Excellence

There is a perceptible change in the socio-educational climate of the country. Emergence of a growing affluent middle class eager to spend money for good education for their wards, has changed the total teaching-learning scenario. No doubt, private initiatives in school education can and do contribute substantially whenever introduced with a sense of service, sincerity and commitment. However, the mushrooming number of private coaching centres these days has shaken the very foundation and philosophy of school education. It is a challenge for those who cannot afford expensive private coaching. Such imbalances need to be corrected by introducing a very strong social purpose in the field of education. It is high time the foundation of school education was strengthened by providing all the necessary quantum of learning experiences needed for diversity and flexibility in school system and by developing an appropriate linkage between the higher secondary and tertiary levels.

While accepting the goals of diversification and flexibility as indispensable at the higher secondary stage, one cannot afford to ignore the basic parameters of equity and excellence. Special care needs to be taken of the institutions located in rural, tribal and remote areas and the students therein, by providing them special inputs. The price is none too big for a society that believes in promoting egalitarian values and reducing the existing disparities. The Indian Constitution also provides for positive discrimination to see that the neglected and the weaker sections are brought into the mainstream of the national life, enabling them to make their effective contributions to the harmonious development of the Indian society.

There is a need to identify the various ingredients and variables that ultimately determine the quality of education and its end product. In today’s world of globalisation marked by competitiveness and challenges, it is required more than ever before that the country sets its own national standards comparable to any international standards. Well thought out courses of studies, detailed curricular outlines, identification of learning outcomes, variety of instructional materials — audio and visual — and multimedia packages and improved evaluation tools will have to be developed. Special teachers will have to be provided for promotion of physical education, games and sports, arts and aesthetics and vocational courses. And yet all this may not be enough. It is the process of curriculum transaction, both in and outside the class, that will have to be carefully looked into. The teacher will have to play a catalytic role, entirely different from what he or she is used to, at the moment. A teacher will have to plan meaningfully and imaginatively learning opportunities in which students are encouraged to learn individually, in small groups, from one another and from the society and environment at large. It is the acquisition of learning skills, the ability to explore, observe and discover the unknown and facility in analysis, synthesis, critical thinking and decision-making that need to be the watchwords of curriculum transaction under the supervision of the teacher who should essentially be a facilitator of learning.

3.1.4 Diversification and Flexibility

To suit the varied needs and potentialities of an adolescent, diversification and flexibility should be the major characteristics of the higher secondary curriculum. Since interests and aptitudes of the students largely stabilise by the time they reach this stage, they should be provided opportunities to pursue courses of their choice keeping in view their inclination and preferences.
In the context of the rigidities that characterise the education system, for instance, non-availability of choices which cater to individual differences and interests and lack of opportunity to move at one’s own pace, it is suggested that the content of courses may be made flexible to the extent possible. Courses with credit system and of varying durations may be provided to the students of both the academic and vocational streams. However, the value of a foundation course cannot be underestimated. Core components and value education should also be integrated with different areas of study appropriately.

Courses at the higher secondary stage will fall into two broad streams, academic and vocational. In each of these, there would be a judicious mix of foundation courses and specialised elective courses. The existing groupings like arts, science, commerce, and agriculture should not be treated as sacrosanct compartments. Students should have freedom, within practical limits, to choose courses simultaneously from more than one group according to their needs, interests and aptitude. Over a period of time, the mental inhibitions setting barriers between the academic and vocational streams and between the various traditional groupings can be dismantled.

3.2 Semesterisation

Introduction of the semester system was advocated by the NPE, 1986 with a view to ensuring greater flexibility and functionality among the courses to be offered at the secondary and higher secondary stages. The greatest argument in support of the semester system is the freedom it offers in experimenting with the satisfactory tools and techniques of evaluation in general and the learning outcomes in particular. It supports the universal belief that evaluation should be both comprehensive and continuous and that it should be more formative and corrective in nature than summative and judgemental. The document entitled Higher Secondary Education and Its Vocationalisation (NCERT, 1991-92) dealt with the question of semesterisation particularly in the context of vocationalisation of higher secondary education, which also recommended the semester system for facilitating flexibility in learning and evaluation. During the last fifteen years, semesterisation could be introduced only in a small number of institutions in the country. In most of the cases, a year’s course has been arbitrarily divided into two parts to be covered in the two halves of an academic session.

Semester-based education aims at formulating convenient units of learning and making a quantum jump in educational standards. It can initiate and sustain a process of modernisation and improvement in teaching and learning, and provide flexibility in the choice of courses to suit the individual needs and interests. It can also lead to reforms in the technique of evaluation, the promotion of interdisciplinary approach and studies and internal evaluation by the teacher teaching the courses.

The system of earning and accumulating credits, which is the basis of semesterisation, is followed by only a few advanced institutions of higher learning. The general non-implementation of this reform in curriculum and evaluation, so far, is due to academic, financial and administrative reasons and also due to the physical dimensions of the frequency of examinations conducted by the examining agencies. It is high time now that necessary preparation was undertaken and a modest beginning in vocational and academic streams was made to ensure greater flexibility and diversification in the school system. In the present scenario when the requirement of different sectors including industries is to prefer functionaries with multi-skills, semesterisation based on credits offers a viable solution.

In the semester system, students have the choice to take any number of credit hours as per their requirements and capacity, and at their own pace.

3.2.1 Credits
The semester pattern of education is modelled on credit system. Each course in a semester carries a number of credits depending upon the quantum of work required to be done and the time to be spent on it. Credits usually connote the number of contact hours in a class per week throughout the semester in the form of lectures, tutorials and seminars. One credit course normally implies class instructions of fifty to sixty minutes each supplemented by two to three hours of study at home per week during a semester. In laboratory work and in a field study, one-credit course implies two to three hours of work per week throughout the semester.

In the semester system, students earn credits in a course after they have (i) attended the minimum number of prescribed lectures including tutorials and seminars delivered or practicals including laboratory and/or fieldwork conducted; (ii) have obtained not less than the minimum percentage of marks or qualifying grades allocated for internal assessment; and (iii) have obtained not less than the minimum percentage of marks or grades specified for the semester end examination in that course.

3.3 Curriculum Organisation

After the ten year common programme of studies, primarily of language skills, scientific literacy, basic mathematical and social skills, cultural heritage of the country, issues relating to political, economic and social life and environment, the stage is ripe for exposing the students to differentiated and specialised indepth courses in humanities, social sciences, science, mathematics, commerce and the like on the one hand, and a variety of vocational courses on the other. Thus, according to one of the most important recommendations of the Kothari Commission, the curriculum at this stage is to be organised under two streams, the academic stream and the vocational stream. However, there is a need to ensure that appropriate linkages between the two are not only maintained but systematically strengthened.

3.4 Academic Stream

The objectives of academic courses at this stage may be:

- to expose learners to higher levels of knowledge in different disciplines;
- to introduce them to different ways of collecting and processing data and information under specific disciplines, and help them in arriving at conclusions and generating new insights and knowledge in the process;
- to promote problem-solving abilities and creative thinking in the citizens of tomorrow;
- to cope with the changing demands of a society committed to use science, technology and informatics; and
- to assist students to explore their interests and aptitudes in order to choose appropriate careers for shaping their future.

3.5 Scheme of Studies

The curriculum at this stage will comprise:

(i) Foundation Courses; and

(ii) Elective Courses

(i) Foundation Courses
At the higher secondary stage, students opt for academic or vocational courses. However, they all need to have a foundation course. Nevertheless, the component of general education is to be kept to the minimum by incorporating in the curriculum only a few but highly significant elements. The common component of curriculum thus, would consist of: (i) language and literature, (ii) work education, and (iii) health and physical education, games and sports.

Language: The objective of teaching language as a component of the Foundation Course is to nurture among learners advanced communication and negotiation skills, higher order reading, writing and study skills and a humane, appreciative and futuristic approach to life and its various manifestations.

Whether the students are preparing to enter life (the world of work) or moving upward to higher academic or professional courses or vocational stream, the study of language in its general and specialised form equips them with effective communication and negotiation skills, higher order reading, writing and study skills and a thorough vision of their field of study or work. The study of language prepares a learner both to learn and use language effectively in the classroom, the community and the workplace.

The different texts in the language course materials broaden learners' mental horizon, liberate them from prejudice, dogma and superstition and foster in them the desired personal and social values, an awareness of and pride in the great artistic, literary and cultural tradition of the country and a deep understanding of the social psyche of the nation. The study of language and literature would ensure better mental health for the learners through exposure to finer human emotions, sentiments, mental conflicts and their resolution.

The choice of the language to be studied at this level under the Foundation Course should be left to the learner's personal preference and perceived needs.

Work Education: The final shape of the emerging India to a large extent, will be determined by the commitment to work ethics in its schools. The country's philosophy and attitude toward work, its efforts to develop skills and healthy work habits, and its resolve to improve productivity in every walk of life would depend, mainly, on the place it assigns to work education in schools, in and outside the classroom. This explains why work education finds a place in the Foundation Course curriculum meant for the academic stream at the higher secondary stage.

The programme may be linked with one or more subjects or it may be even independent of subjects, if necessary. Special efforts, however, may be made to establish linkages with the subject areas and more particularly with the local environment and developmental activities in the neighbourhood. Taking up long term developmental projects in a village or city slums under the auspices of the school would provide practical experience and insights into the social matrix and economic problems and processes. It would help in generating socially desirable values. These developmental projects can be in the areas of adult education, afforestation, water management projects, road building, and the like.

The Generic Vocational Course (GVC) meant for the students of the academic stream cuts across various vocations and aims at developing employment related generic skills needed by an educated work force regardless of the persons' occupations. It would improve the quality of general education by developing key competencies and transferable skills for the technology oriented society.

Health and Physical Education: Health, physical and mental, is the primary wealth in life. Therefore, health and physical education must be perceived as an integral part of curriculum at any stage of education. It should also contain elements of adolescence education and sex education.
Apart from the regular physical training, athletics, games, sports, yoga and physical fitness exercises should receive due attention at this stage as a part of physical education and physical culture. Improvement of local sanitation and public health services should form part of fieldwork under the course.

(ii) **Elective Courses**

The elective courses will have to cater to the varied and heterogeneous clientele. While quite a few of the students may be preparing for entry into tertiary education, many more would be preparing to enter the world of work.

The traditional courses of study in well established disciplines retain their place. However, some new potential subjects of study have also emerged. These include computer science, biotechnology, genomics, yoga and environmental education, for example. The real challenge for educators lies in identifying and planning courses of applied nature that may have adequate employment potential or immediate and direct utility in life. An equally great challenge lies in planning essentially inter-disciplinary courses. Perhaps, the areas like conservation education, consumer education, legal literacy, productivity education, population education disaster management, and family life education, could be explored fruitfully.

A student would be required to choose three elective courses out of the subjects prescribed by the boards. The list of courses may include modern Indian languages and their literature, Samskrit and its literature, classical languages and their literature, English (Academic and Specialised), other foreign languages, physics, chemistry, biology, mathematics, computer science, geology, political science, geography, economics, history, sociology, psychology, philosophy, fine arts, sculpture, instrumental music, vocal music, home science, accountancy, business studies, engineering drawing etc. The list is not exhaustive. It would be essential to review the list of courses periodically in collaboration with various interest groups, such as industry, business, universities, employment and manpower specialists and common people represented through parents, artists, social workers and political representatives for effecting meaningful changes in tune with the changing needs of the society and those of the individual.

It is a common practice with the boards of secondary education to put elective courses under groups like science, commerce, humanities, etc. But it would be more appropriate to list all the courses together without dividing them into mutually exclusive groups which may defeat the real spirit of diversification, flexibility and functional utility. To overcome the related issues of management, certain practices from open learning systems can be borrowed by the conventional system. It may also help in promoting inter-disciplinarity.

3.6 **Instructional Strategy**

New and dynamic techniques including the use of electronic media are to be adopted with a view to inculcating among the students curiosity, encouraging self-study and nurturing problem-solving abilities. Emphasis has to be on learning rather than on teaching, therefore, seminars, tutorial assignments, problem-solving sessions, group discussions, laboratory work, project work and home study will constitute integral parts of instructional programmes and a credit for each activity will be given in continuous sessional evaluation.

3.7 **Instructional Time**

After taking into account the number of days required for organising evaluation activities, tests, examinations, school functions, etc. a minimum of one hundred and eighty actual instruction days in a year must be made available for effective instruction.
It has to be impressed upon schools that the time allocated to the foundation course should not be encroached upon by the elective courses or vice versa. Roughly sixty percent of the instructional time can be set apart for the instruction of elective subjects and forty percent for the foundation course.

3.8 Vocational Stream

Introduction of the vocational stream was a recommendation of the Kothari Commission (1964-66) and it had far reaching consequences in the context of providing skilled manpower enriched with entrepreneurial skills and competencies. The National Policy on Education, 1986 (revised 1992) set a target to cover twenty-five per cent of the higher secondary students under vocational courses by 1995. But, so far, we have reached the enrolment of only nearly five per cent. In order to meet the required targets and also respond to the emerging challenges, vocational education needs to be given a high priority.

The nature of technological advancement and the highly competitive world demand continuous upgrading of knowledge and skills for every person in every walk of life. While opportunities for formal employment in organised sectors are now decreasing, they are increasing in service sectors. Skills necessary for self-employment and entrepreneurship are to be provided to all the students entering the field of vocational education.

3.8.1 Vocational Education for All

Up to the secondary stage, provisions exist for giving the students an opportunity under work education to do work. There is also a provision for an alternative scheme of pre-vocational education programmes at the secondary stage. It is followed by the generic vocational course in the academic stream and also the vocational courses at the higher secondary stage.

Vocational courses are designed as self-contained modules specifying details of the theoretical aspects or basic scientific principles and the practical operational details. Schools will assess the need, relevance and potential of the courses before offering them to students. Their duration may vary depending upon their nature and requirements. These courses in the formal school system would help in enhancing the employability of the students joining the world of work.

The vocational education stream will also have to find its due place in alternative schooling especially in the open learning system. Majority of students leave school after Class X on different grounds. A large number of them may look for an alternative route to learning which suits their interest and also develops their earning capability. The vocational education programme being flexible and modular in nature provides such opportunities. These programmes may also cater to the requirements of adults — neo-literates as well as semi-skilled and non-skilled workers. The non-formal vocational programmes with emphasis on entrepreneurship and the non-traditional and emerging technologies should be specially geared to the needs of the out-of-school girls. In order to meet these requirements, multi-entry and multi-exit modular courses of varying durations may be planned.

The vocational education programme designed to meet the varying needs of the socially disadvantaged groups, such as women, scheduled castes, scheduled tribes and physically challenged persons, would help them acquire suitable productive skills. It will make their lives more meaningful as they will be economically independent and self-reliant. It would be an important step toward their social and economic empowerment.

Vertical and lateral linkages need to be developed in order to offer better career options to vocational students and to give respectability and acceptability to the vocational education programme.
3.8.2 Excellence

Vocational education is often perceived as a second rate education and the excellence of attainments therein suffers in the process due to a variety of reasons and prejudices. While all attempts have to be made toward achieving excellence, it may be borne in mind that the perceived inferior status of vocational education is a global concern. It is also a relative notion. What may be inferior for a certain group of learners is a preferred choice for others. Some shifting of priorities in the matter of choice is becoming evident when pressure from the non-remunerative general education courses is getting transferred on to the vocational areas. More of this shift would be forthcoming in the near future. This is clearly indicated in the private sector vocational courses in the areas of emerging technologies.

Competency based curricula have a great role to play in ensuring excellence. They also help to provide comparability of standards wherever desirable. If the country offers a first rate vocational education channel, its excellence will automatically attract a much larger number of students than at present.

3.8.3 School — Industry Linkages

Linkages between schools and industries catering to the areas relevant to vocational courses will be an important feature of vocational education. The school enters into a mutually beneficial relationship with a nearby industry to share its facilities, teachers, etc. and to provide opportunities to interns. Such a system is also available through the Apprentices Act. In many countries, the industry eventually employs the workers trained in it. It substantially reduces the cost and time spent in the schooling process. The curriculum for such training is largely determined by the industry. Such a symbiosis can be developed by schools with both the organised and the unorganised industry.

The term ‘industry’ in this context includes every such organisation as has direct relevance with the vocational courses offered, and has the potential for employment. As such, vocational education has to cater to the needs of an organised sector, service sector, rural and agro-based industries, agriculture related vocations, business and trades and other crafts.

In order to have experiences related to the world of work, the learners shall have to have interactions with outside organisations, agencies and community at large. The schools shall have to play an important role in establishing these linkages.

3.9 Scheme of Studies

At the higher secondary stage, the vocational education programme aims at developing through diversified courses skills and related knowledge required for a specific occupation or a group of occupations to prepare children for the world of work, especially for self-employment. The courses for the vocational stream will consist of:

(i) Language
(ii) General Foundation Course,
(iii) Health and Physical Education, and
(iv) Vocational Electives.

Vocational education covers a wide variety of areas like agriculture, engineering and technology (including information and communication technology), business and commerce, home science,
health and para-medical services and humanities. Each area in itself comprises a large number of special courses.

The courses will be modular in nature catering to some specified competencies based on the credit system. Accumulation of a prescribed number of credits after successful completion of these courses will be the requirement for the award of a certificate. The vocational courses so offered will have in-built flexibility to suit local needs and the needs of the target groups in order to enhance their relevance and effectiveness.

With the phenomenal strides of information and communication technology and globalisation of economy, the spectrum of areas for which competency and skills need to be developed through vocational education has become very wide. On the one hand, there will be need to develop manpower in the use of information and communication technology so as to spread its applications even into the remote areas and, on the other, the vocational requirements of rural India in agriculture and agriculture-based technology will have to be met. In addition, one cannot forget the traditional artisans and craftsmen. Their skills and competency have to be passed on to the new generation. Formal courses in these trades and crafts will make use of modern technology to improve efficiency and quality, and at the same time, to overcome drudgery traditionally associated with these trades and crafts. These should receive adequate recognition and, wherever necessary, due certification.

(i) Language

The study of language would take care of communication skills which in no way are less important for students pursuing vocational courses. The only, but highly significant, difference would be in organising the language courses in such a way that they take care of the grammatical structures and additional vocabulary peculiar to the trade or vocation of each student. In addition, there would be units on culture and literature to cater to the emotional and intellectual growth of the learner and the harmonious growth of his personality. The choice of the language may be determined by the learners’ need and the infrastructural facilities available in the system.

(ii) General Foundation Course

The General Foundation Course for the vocational stream will mainly comprise general studies, entrepreneurship development, environmental education, rural development and information and communication technology. The course in general studies is the extension of the foundations already laid during the first ten years of schooling. Its purpose is to sensitisce the youth to the social, economic, political and moral or ethical issues of contemporary India and the world. Entrepreneurship development including salesmanship is necessary for self-employment and, as such, forms an important part of the general foundation course.

Addressing environmental issues at the grassroot level is necessary for sustainable development. Therefore, the students of vocational education, who are expected to enter the world of work at an early age, have to be made aware of the concerns and issues related to environmental conservation and development.

In a country where nearly two-thirds of population lives on agriculture, the rural areas have a tremendous potential for providing self-employment opportunities. Rural development, therefore, forms an integral component of this course.

Another significant development of the day is the use of computers in every walk of life which makes the knowledge of Internet, e-mail, and e-commerce absolutely essential. Hence, information and communication technology is also to be included in this course.

(iii) Health and Physical Education
At every stage and in every stream of schooling, opportunities for regular physical training and activities must be provided for physical fitness. However, for the students of vocational courses, the exercises and activities involving less of physical strain will be more suited because these students have to undertake strenuous physical activity in their practical work and on the job training in the regular vocational courses. Keeping this in view, physical activities like yoga, meditation, and light exercises involving posture change, and relaxation may be recommended. Improvement of local sanitation and public health should form part of the fieldwork of this course.

(iv) Vocational Electives

Vocational courses cater to the requirements of varied and heterogeneous clientele. Majority of the pass-outs from the vocational stream will soon be entering the world of work. Students have to be given a large number of options based on the local needs, employment opportunities for wage employment and self-employment, their aptitude and interest, and the geographical location of the school. Students will, thus, get an opportunity to choose courses in the areas of their liking. Within each broad area, a number of courses for developing specific competencies are to be prepared. This can be done after a detailed analysis of the functions and tasks expected to be performed by a worker in that area.

The possible employment opportunities, for wage employment as well as self-employment, are identified by experts drawn from the relevant fields. The related competencies in terms of knowledge, skills and attitudes are identified and the learning experiences are then organised accordingly. Grouping of similar types of learning experiences to form a module to facilitate the teaching-learning process and to manage the implementation of the vocational education programme is then initiated. A careful review of and modifications in the grouping of the options from time to time would also be desirable. Some kind of effective mechanism for standardisation and quality control of the existing courses is needed to enhance the credibility of the vocational courses and the acceptability of the pass-outs among potential employers.

3.10 Instructional Strategy

Vocational education programmes require well tried out strategies for effective teaching-learning and the practice of vocations and entrepreneurship. Practical training is an essential component of the vocational courses, as it helps in developing the required competencies with adequate precision. For this purpose, schools need to make sufficient provision for exposing the students to work at the training-cum-production centres and for integrating their knowledge with skills through job training and project work. The competencies thus acquired would be further reinforced and refined during apprenticeship.

Training-cum-Production Centres

Schools providing vocational courses should strive to have their own training-cum-production centres. These centres provide to the learners real life experiences and an opportunity for acquiring on-the-job skills and developing entrepreneurship abilities. Thus, the schools offering vocational courses may undertake semi-commercial ventures in production and services to generate income. It will provide additional incentives to the learners and teachers in monetary terms as they will share the profits. It is also a sound pedagogical practice. The community should be suitably involved in marketing the products.

Integration of Knowledge and Skills

During the transaction of the vocational courses, a continuous integration of knowledge and skills takes place in the schools. It, however, needs to be augmented through on-the-job training and project work. In order to be enriched with practical experience, the students are taken to a
service centre or repair centre or production unit to work in a real life situation under the guidance of an expert practitioner. There must, therefore, be provision for on-the job training for certain number of hours for every vocational course. The students may be evaluated jointly by the teacher and the expert practitioner.

Students are to be given project work to be done individually or in small groups. It will help them consolidate their learning, learn to communicate, and achieve the time target.

Apprenticeship

Under the Apprentices Act, many of the vocational courses currently being offered are expected to be providing apprenticeship training to the pass-outs. Apprenticeship training enables the pass-outs to get acquainted with the industrial environment and to get first hand experience of working in an industry and its work culture. In order to be acceptable to an industry under the provisions of the Apprentices Act, a student would have to demonstrate the competencies he is supposed to have acquired. However, apprenticeship is not a substitute for the practical work or workshop training in the school.

3.11 Instructional time

For an effective implementation of the vocational education programme, the provision of adequate instructional time as per the requirements of various courses needs to be ensured. It has to be impressed upon the schools/agencies that the time allocation as suggested in the Programme of Action (1992), i.e., thirty per cent time for language, the general foundation course, and health and physical education, and seventy per cent time for vocational courses may be adhered to.

3.12 Evaluation and Certification

Assessment in vocational courses has to be performance oriented. Continuous and comprehensive evaluation, with a built-in procedure for remedial measures, will ensure effective achievement of the requisite competencies. A complete and comprehensive record of the assessment of the students' performance including evidences reflecting their personality traits will be maintained. Both process and product assessment are important for correct evaluation. The certificate issued will make a mention of the competencies acquired along with the credits earned therein.

3.13 Open Learning System

Open learning system is increasingly becoming popular because of its capacity to provide education of comparable standards in a flexible and learner friendly manner, particularly to those who could not get access to the formal system of education obtaining within the country. At the higher secondary stage, the open school system may be utilised fully for both the streams, academic and vocational. It is visualised that many students would like to go in for vocational courses at this level through the open learning system as it provides freedom in the combination of subjects and in the scheme of examination. For maintaining parity of standards, the formal and open learning systems can have separate but comparable syllabi in each subject. This comparability of curricula of the two systems would help learners move easily from the open learning system to the formal schooling system and vice-versa. Such a symbiotic relationship will be of great advantage to the learner.