CHAPTER 1

THE PROBLEM AND ITS SETTING

1.0 Introduction

Education has always been accepted as a powerful and effective medium to enhance the productivity of individuals, besides its other roles in any society. In as early as 1937, the Wood and Abbott Committee Report on general and vocational education stressed that manual activities should find a place in the curriculum not because the pupils or some of them will earn a living by doing manual labour but because satisfaction of the desire to make or create is necessary to have balanced development of a child's personality. During the same year Zakir Husain Committee on Basic Education had also expressed similar views when it said, "Modern educational thought is practically unanimous in commending the idea of educating children through some suitable form of productive work. Manual work forms a person's character and develops the whole man-body, mind, heart and spirit. It has disciplinary value for one's life and creates self-confidence, self-respect and self-reliance. It provides vast opportunities for initiative, creativity, co-operation and social service".
Psychologists are also of the opinion that productive manual work is extremely desirable because it relieves the child from the tyranny of purely academic and theoretical instruction against which his active nature is always making a healthy protest. Manual work done intelligently and not mechanically helps to develop desired personal and social qualities which are conducive to a secular democratic society. Psychomotor skills thus developed provide the much needed pre-vocational orientation for smoother transition to the world of work (NCERT, 1991).

In India, it was Mahatma Gandhi who first emphasised the idea of integrating work with education as distinct from mere introduction of work in education. The concept of Work Experience, as recommended by the Education Commission (1964-66) is essentially similar to the philosophy of Basic Education. It was, in fact, described as a re-definition of Gandhiji's thinking in terms of a society launched on the road to industrialization.
The National Working Group on Vocationalization of Education (1985) also stressed the importance of Work Experience programme in the ten-year curriculum. It recommended that at the secondary stage pre-vocational programme should be planned for enhancing the employability of the drop-outs at this stage and also to give them the vocational programme at the Senior Secondary stage.

The National Policy on Education (NPE) 1986 reiterated the concept of Work Experience and viewed it as "purposive and meaningful manual work, organised as an integral part of the learning process and resulting in either goods or services useful to the community". The policy has, in addition, visualised "pre-vocational programmes at the lower secondary stage".

As of today, Work Experience in actual practice concentrates either on knowledge thereby giving it a predominantly theoretical orientation, or on production alone giving it a factory orientation. Either of these situations negates the basic aims of introducing the subject into the school curriculum. In fact, Work Experience rightfully belongs to the school curriculum only if the learning
outcomes from this subject fulfil the objectives of general
education, viz. all round development of the child's
personality. This is possible only when each of the
cognitive, psychomotor and affective aspects of the programme
are properly incorporated in a teaching-learning situation.

Based on the recommendations of the Kothari Commission
the component of Work Experience was introduced in the school
curriculum in almost all the States from 1975 onward. However, its implementation varied in emphasis from State to
State and institution to institution (Learning by Doing, 1991).

1.1 Concept of Work Experience

The concept of Work Experience in the form of Socially
Useful Productive Work has been described by the Ishwarbhai
Patel Committee and later adapted in the NPE 1986, as
purposive, meaningful, manual work resulting in either goods
or services which are useful to the community.

According to NPE 1986, Work Experience comprises
activities consisting of services, production of goods and
rendering of community work and social service in various
areas of human need in accordance with mental capabilities and capacity for manual work in children at various stages of education as well as on the availability of local resources. The Policy visualised intensive participation of children in production and service-oriented projects at the middle and lower-secondary stages along with an "Earn while you Learn" dimension for needy students on an optional basis. It assigned equal importance to community work/social service for creating social awareness and concern for the welfare/development of the local community or society at large.

The essential attribute of Work Experience is, therefore, its manual character which means that the children are to work with their hands and thereby develop a sense of dignity of labour and stamina for hard work. Manual work should also be purposive or educative in that it should help develop knowledge, understanding, attitudes, personal-social qualities and skills related to the world of work. Further, Work Experience should be meaningful i.e. it should help in the satisfaction of children's basic needs of life such as those related to food, clothing, shelter, health, hygiene and recreation, through production of goods or rendering of services. Social or community service for the
welfare/development of the community or society at large should also form an essential component of Work Experience.

The concept of Work Experience as mentioned in the NPE-1986 is essentially the same as that of erstwhile SUPW. However, its emphasis is on well-structured and graded programmes at all stages of school education. The most important goal of education is to prepare children for life as adults and to impart knowledge, skills, qualities and attitudes which make them self-supportive individuals and productive citizens. Pre-vocational programmes at the secondary stage, as visualised in the NPE are aimed specially at development of skills in different work areas through well-designed courses so that those who stop studies after the secondary/senior secondary stage are able to enter the world of work directly or with a little more preparation. The emphasis in such courses is on practical work to satisfy the needs of students, school and community and to find the solution of problems. Saleability and commercial acceptability of the goods or services produced should be viewed as ground preparation for vocations for those who drop-out after class X and as preparation for vocational courses for those who opt for them at the plus-two stage.
The introduction of practical productive work in education, tends to break down the existing barriers of prejudice between manual and intellectual workers, harmful alike for both (Sen Gupta, 1981). It cultivates a true sense of dignity of labour and of human solidarity - an ethical and moral gain of incalculable significance. The Ishwarbhai Patel Committee felt "that if Socially Useful Productive Work is given a central and dominant place in the curriculum, the gap between work and education will be reduced, the school will not remain isolated from the community and the gulf that divides the affluent from the weaker and poorer sections of the community will be narrowed. Such a scheme will provide equality of opportunity for working and learning to all children irrespective of caste, creed, sex and economic status".

School is an agency of the community for not only conserving the existing culture but also for progressing, improving and enriching it at the same time. In a way, school is a miniature society which acts as an instrument of change and on its part is influenced by the changes in the society. A sincere implementation of the Work Experience programme by
the schools can go a long way in bringing students closer to the community life and developing them into responsible citizens with productive and service oriented outlook.

Psychologically also, it is important, as it balances the intellectual and practical elements of experience, and may be made an instrument of education of the body and mind in co-ordination. The child acquires not the superficial literacy which implies often without warrant, a capacity to read the printed page, but, far more important, a capacity of using hand and intelligence for some constructive purposes.

Children by nature are active, restless and have an urge to touch, feel, experience, and understand everything. They have God-given curiosity (Sen Gupta, 1988). Anything that is new to them attracts their attention. Their inquisitiveness and curiosity seem to be insatiable. Compelling them to sit and listen passively is against their very nature. On the other hand, they get thrilled when a "train" or "a car" is set in motion by their own efforts or an aeroplane prepared by them floats in the air. In other words, they get interested in an activity when they themselves are actively involved in it by touching, winding,
folding, cutting, etc. It is in this perspective that the curricular area of Work Experience provides an active forum for the nurture and sustenance of their creativity, development of neuro-muscular coordination and an attitude of helpfulness to others; thereby making themselves useful members of a democratic society.

1.2 Historical Perspective

The roots of productive work in Indian education may be traced from the old Vedic culture. In ancient India, when the students lived in the 'ashrams' with their teachers, they had to do every kind of manual work for living and learning. Education was related to their life. The dichotomy between education and work did not exist in an Ashram. However, the society becoming highly segmented with a marked distribution of labour, the intellectual learning became the preserve of a few castes only. In this respect a dichotomy in respect of the type of education available being determined on the basis of one's family or birth did exist which has profound bearing on the relationship of work and education even today.
But it was during the British period that education became increasingly bookish. Hardly any provision was made for productive work in general education system. General education being available to the upper classes only the gap between intellectual and manual work got further accentuated.

The following is an account of the efforts made to bring about a closer relationship between education and work since 1854 when first set of recommendations were made on this subject in Wood's Despatch.

It was in 1854 that the attention of the government was drawn towards practical education by the Wood's Despatch. It said "our attention should be now directed to consideration, if possible still more important and one which has hitherto, we are bound to admit, too much neglected, namely, how useful the practical knowledge suited to every situation of life, may be best conveyed to the great mass of people who are utterly incapable of obtaining any education worthy of the name by their unaided efforts". But evidently this report did not make any noticeable impact until Hunter Commission was set up in 1882 to examine the problems of education as a whole especially of technical and vocational education. It recommended that at the high school stage there ought to be...
two distinctive streams, first for preparing the students for entrance examination to the university courses and the second for practical occupations. These, recommendations, however, were not implemented.

The Hartog Committee (1929) recommended diversified courses at the end of middle school stage to enable the students to prepare for industrial and commercial careers. Again Wood and Abbott Commission (1936) stressed the importance of manual activities in education to cater to the varying needs of student population.

Deploring the ineffectiveness of book learning, Rabindra Nath Tagore also emphasised the role of manual work in imparting all round education.

Thus the importance of productive work in education was pointed out by various Committees and Commissions since 1854, but practically no action ensued in response to these.

It was Mahatma Gandhi, The Father of the Nation, who for the first time, insisted that manual and productive work should not only find a place in the school curriculum but also education should centre around it. The following
resolution was passed at the Wardha National Education Conference in October 1937:

The Conference endorsed the proposal made by Mahatma Gandhi that "the process of education throughout this period (seven years) should centre around some form of manual and productive work, and that all other abilities to be developed or training to be given should, as far as possible, be integrally related to the handicraft chosen with due regard to the environment of the child".

The educational ideas of Mahatma Gandhi were given practical shape by the Zakir Husain Committee and Basic Education was accepted as the National pattern of education for the elementary stage in 1938.

Since then, many issues pertaining to the Socially Useful Productive Work have remained controversial, e.g., its productive aspect, its relation to other areas of curriculum, the position of text books, etc. Clarifications were issued by the Ministry of Education, Government of India in the year 1956. As the Basic Education was being implemented, many practical difficulties came to the surface and efforts were made to find out solutions to remove them.
The Secondary Education Commission (1952-53) also known as Mudaliar Commission reiterated that "the secondary education is a complete unit by itself and not merely a preparatory stage, that at the end of this period the student should be in a position, if he wishes, to enter into responsibilities of life and take up some vocation". It also recommended diversification of courses at the secondary stage. This resulted in the creation of multi-purpose schools. Unfortunately, for various reasons including lack of proper appreciation of the scheme, inadequate preparations and over-emphasis on preparation for university courses, the multi-purpose schools were reduced to shadows of what they were intended to develop.

In 1966, the Education Commission, popularly known as Kothari Commission observed that the activities proposed in Basic Education were concerned with indigenous crafts of the village employment patterns. With a view to forging a link between education and productivity, it suggested that the work experience should form an integral part of general education. The Commission also clarified that the concept of Work Experience is essentially similar to the philosophy of Basic Education as propounded by Mahatma Gandhi and it might
be described as a redefinition of his thinking in terms of a 
society launched on the road of industrialization. 
Consequently, great emphasis was laid on Work Experience in 
the 10+2 pattern of education. The NCERT's document, "The 
Curriculum for the Ten-Year School - A framework" presented 
to the nation an implementable programme on the lines of the 

The Ishwarbhai Patel Committee (1977), which reviewed 
the NCERT's document, came forward with the concept of 
Socially Useful Productive Work (SUPW) as a Central Component 
of the ten year school curriculum. It pointed out that "Work 
Experience which was intended to be an integral feature of 
the curriculum, at all stages, did not find a proper place in 
the teaching-learning process that followed the introduction 
of the new pattern". It defined SUPW as "purposive and 
meaningful manual work resulting in either goods or services 
which are useful to the community".

The concept and objectives of SUPW as defined by the 
Ishwarbhai Patel Committee have been accepted by the 
Adiseshiah Committee (1978) also for the plus-two stage of 
education with minor adaptation.
The National Working Group on Vocationalization of Education (1985) appointed by the Ministry of Education, Govt. of India, New Delhi, considered in depth the concept and operation of WE/SUPW, its implementation in various States and underscored its conceptual aspects as applicable to primary, middle and lower secondary stages. It has suggested certain improvements to be incorporated in the educational programme in future.

The National Policy on Education (1986) re-emphasised the concept of Work Experience which was previously referred to as SUPW.

Janardhan Reddy Committee Report (JRC) 1992 stressed that WE/SUPW courses needed to be toned up in keeping with the common perceptions of NPE and National policy on Education Review Committee (NPERC) 1990 on Work Experience. The JRC 1992 report recommended that Work Experience programme may be systematically implemented by allocating 12.5 per cent to 20 per cent of the school-time for these activities. The activities should have a practical orientation in relation to various subjects under this programme.
More recently the revised policy formulations of 1992 have assigned a very important place to Work Experience in the school curriculum at all stages. It has reverted to the term' Work Experience" which was earlier used by Kothari Commission.

The Revised Programme of Action 1992 has stated that "it has been observed in actual practice that Work Experience has degenerated into trivial activities in the school and in many States the time allocation rarely exceeds 10\%". It further stated that' The "State Government/UT's should ensure that Work Experience is actually included as an integral part of the curriculum, that teachers are trained to impart the instruction and that necessary financial provision is made. Work Experience programmes are aimed at developing in learner's confidence and sufficient psychomotor skills to facilitate their entry into world of work at a subsequent stage. In school where Work Experience already forms a part of the curriculum, these courses need to be toned up in keeping with the perceptions reflected in the NPE".

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The preceding description regarding concept of Work Experience and its importance makes it imperative that in the modern world whose activities are so comprehensively and completely controlled by the fantastic developments in science and technology, every child must be equipped to meet the challenges it will have to face in his/her life span. For such a preparation Work Experience related activities should be integrated with the general education to equip the students with certain elementary skills that will enable them to take care of simple functions such as repair and maintenance of domestic appliances and vehicles, care of garments, raising vegetables, rendering social services, etc.

At the secondary stage such work projects may provide opportunities for pre-vocational training for those who may opt for vocational studies later.

1.3 Objectives of Work Experience

The general objectives of the Work Experience Programme as mentioned in "Work Experience in School Education- Guidelines" (NCERT, 1987) are as follows:
(i) **Knowledge And Understanding**

To Help the Child

- identify his needs and those of his family and community in respect of food, health and hygiene, clothing, shelter, recreation and social service;

- acquaint himself with productive activities in the community;

- understand facts and scientific principles involved in various forms of work;

- know the sources of raw materials and understand the use of tools and equipment in the production of goods and services;

- understand the needs of a technologically advancing society in terms of productive processes and skills;

- understand the process of planning and organizing productive work;

- conceptualize his role in productive situations;

- develop an awareness of social problems;

- develop his abilities for self-evaluation of his performance.
(2) Skills

To Help the Child

-develop skills for the selection, procurement, arrangement and use of tools and materials for different forms of productive work;

-develop his skills to observe, manipulate and participate in work practice;

-develop skills for the application of problem-solving methods in productive work and social service situations;

-develop his skills for greater productive efficiency;

-enhance his working competence sufficiently so as to enable him to earn while he learns;

-use his creative faculties for devising innovative methods and materials;
(3) Attitudes and Values

To Help the Child

- develop respect for manual work and regard for manual workers;

- inculcate socially desirable values such as self-reliance, helpfulness, co-operative spirit, team-work, perseverance, tolerance, etc.;

- develop proper work ethics such as regularity, punctuality, honesty, dedication, discipline, etc.;

- develop a deeper concern for the environment and a sense of belonging, responsibility and commitment to the society.

1.3.1 Objectives of Work Experience at the Secondary Stage

This stage may be regarded as a linear extension of the upper primary stage in respect of aims and goals. However, Work Experience should assume a much greater importance at this stage. Through the Work Experience programme children should be able to contribute meaningfully to environmental improvement and conservation, reduction of pollution, and inculcate good habits of proper nutrition, health and hygiene in the community.
At this stage, pre-vocational orientation should be clearly perceptible as far as the curricular design is concerned. The development of vocational aptitude or interest should be given sufficient importance. The pre-vocational programmes will facilitate the choice of vocational courses at the senior secondary stage. Even for those who opt for the academic stream at the +2 stage, provision for enhanced participation in work would add a much desired dimension to academic education and produce better-educated young people in general, which the academic courses alone would fail to achieve.

1.4 Content of Work Experience at the Secondary Stage

Content of Work Experience at the secondary stage will comprise of two parts, i.e. essential activities for the satisfaction of day-to-day life needs of the children, their families and communities and an Elective Programme of productive work and services, repeated practice of which would result in some remuneration in cash or kind. The component of work practice is very important, especially for the elective programme of productive work and services at the upper primary and secondary stages. However, weightage for it
would vary from stage to stage. It is suggested that the productive work practice component at the primary, upper primary and secondary school stages should be given a weightage of 20, 50, 70, per cent, respectively, depending on the total time available to this curricular area.

Further, the actual selection of activities/projects would depend upon the availability of natural physical and human resources in the locality and the socio-economic background of the particular community. Care should be taken to see that adequate coverage is given to many types of activities or projects and that they result in the production of goods and services.

1.5 National Guidelines for the Implementation of Work Experience Programme

According to the Guidelines, (NCERT 1987) referred to earlier, planning for the Work Experience programme should be a decentralized process. At the national level, only a suggestive frame of syllabus for pre-vocational courses has been prepared to ensure relevance to the needs, resources and conditions, which should be followed by the development of a model syllabus by the State. The model syllabus developed by
the State should be elaborated into detailed syllabus at the
district and local levels. District, taluka and village level
committees should be set up for this purpose by including
representatives from various government departments,
development agencies and the public. These committees should
work at local specific plans and programmes based on local
occupations, needs and resources which should be supplied to
the schools well in advance. They should also consider the
feasibility of the provision of raw materials and the sale of
finished products.

The Work Experience programme centres around six areas
of human need, namely, food, health and hygiene, clothing,
shelter, culture and recreation, and social service. A
balanced selection of activities in each of these areas may
be made according to the educational potential of each
activity and the facilities (materials, tools, space, teacher
expertise, etc.) and time available for it. A variety of
activities should be provided as far as possible so that
children can develop self-sufficiency in meeting their needs
and discover their vocational aptitudes and interest in the
selection of pre-vocational courses, local trades and
occupations.
The activities will differ from school to school, depending upon its needs and resources. There can be a programme of Essential Activities which should be undertaken by most of the schools. The programme of Essential Activities should include regular and universal participation of children throughout the year. The elective programme at the upper primary and secondary school stages, should result in the production of goods or services which are saleable or consumable at home, in the school or outside, and which will also provide motivation to students and their parents.

The purpose of Essential Activities is to bring about attitudinal changes and to develop readiness for continued productive work. The purpose of the elective programmes is to give a vocational basis to the Work Experience programme. It may, therefore, require repetition or constant practice according to the time available.

1.5.1 Strategies for Implementation

The guidelines further suggest that the Work Experience activities should not be performed mechanically, and must include planning, analysis and detailed preparation at every
stage, so that it is educational in character. Improved tools and modern techniques should be adopted in the performance of Work Experience activities so that it leads to the understanding of a progressive society based on technology.

It is stipulated that a minimum of six periods per week should be allocated besides the out-of-school hours for productive work and community service. Block periods may also be arranged, if necessary, for productive work, social service or visits to work places.

Two types of facilities are required for the implementation, namely, (a) physical facilities consisting of accommodation, land, workshop, tools, equipment, raw materials, and (b) teacher expertise.

It would be appropriate to utilize community resources extensively for the effective implementation of this programme. Although it is expected that all teachers should work as Work Experience teachers, a large number of activities may require specialized personnel. There should be provision for the involvement of experts from the community. This will be particularly necessary to provide pre-vocational orientation at the secondary school stage.
The traditional type of textbooks meant for the subject areas or teaching of crafts will not suit this area. The problem-solving approach and the integration of knowledge relating to different subject areas will demand a new type of literature for the guidance of teachers. Instructional materials in the form of curriculum guides, handbooks, source-books, manuals, resource-units and doing-learning units will play a very vital role in the implementation of the programme. At the secondary stage, more importance will be given to on-the-job training. Such attachment programmes should be conducted during vacations. These will enable the students to acquire more intensive training through their participation in the production processes directly. While pre-vocational courses may start only at the secondary stage of education, others can provide a continuity with the upper primary stage. At this stage each student may have only one project of a pre-vocational nature. However, more than one closely related areas may be grouped together if the time expected to be spent on each so permits.
1.5.2 Major Tasks at the State Level

Major tasks visualised at the State level for effective implementation of Work Experience programme are:

(a) Creation/identification of State based resource groups

(b) Orientation of officials and key personnel in the States

(c) Development of detailed curricula, instructional materials and other support materials

(d) Awareness and publicity drive

(e) Training of teachers

(f) Establishing linkages of the school with community/institutions/industries/development agencies

(g) Provision of requisite basic facilities within the school according to the programme selected

(h) Classroom instruction to be systematized/improved
Continuous monitoring and evaluation for attaining excellence

It is expected that in the evaluation of student's performance while paramount importance will be given to attitudinal development at the primary stage, skill development will receive maximum weightage at the secondary stage. This will have to be reflected in the weightage assigned to these dimensions in terms of time and marks. It should be remembered that Work Experience is predominantly a 'doing' subject and, therefore, actual work performance should receive maximum attention here. Some of the important aspects of evaluation are as under:

(i) Attitude towards work:

1. Dignity of labour
2. Respect for work and workers
3. Initiative and interest
4. Social commitment and perseverance
5. Discipline
6. Co-operation
(ii) Project or practical work:

1. Selection of materials
2. Selection of tools
3. Proper use of tools
4. Techniques adopted
5. Accuracy and finish
6. Cost estimation

(iii) Social service:

1. Participation in the service activity
2. Organization of work
3. Leadership and decision making
4. Efficiency in execution.

1.6 C.B.S.E Guidelines on Implementation of Work Experience Programme

In schools run by the Directorate of Education, Delhi, the programme of Work Experience as prescribed by the Central Board of Secondary Education (C.B.S.E.) has been implemented. Before probing into the actual implementation of the Work Experience programme in the schools of Delhi it
would be worthwhile to quickly browse through the stipulations of the Board in this respect. The Board has prescribed Work Experience as a compulsory learning area at the secondary stage.

About 10% of the time is required to be spent on Work Experience at the Secondary and Senior School stages. The schools may spend more time on Work Experience in the lower classes going upto 15% of the total time, if possible. In the scheme for secondary school examination (class X), it is laid down that a candidate shall be eligible to get the Pass Certificate of the Board only if he gets a grade higher than 'E' in Work Experience as in other subjects of internal assessment unless he is exempted. If a candidate fails to get the requisite grade as certified by the school, the result of external examination will be withheld but not for a period of more than one year.

1.6.1 Nature of Learning Experience

What is important for the successful implementation of Work Experience is not just the allocation of time but an attempt on the part of schools to integrate it with the process of learning. It should encourage experimentation
with materials, tools and techniques and should familiarize
the students with work practice. At the secondary stage,
exposure to Work Experience should come through activities
which fall under the following areas:

(1) **Essential Area** - under this area students learn to look
after their neighborhood and community including the school
through compulsory activities involving manual work and
social service; and

(ii) **Elective Area** - under this area students through repeated
practice in an activity of their choice acquire enough skills
in productive work and services. This may also be in the form
of pre-vocational experience in some cases.

1.6.2 **Criteria for Selection of Activities**

The Board has listed a number of illustrative
activities both under the Essential and Elective Areas for
the guidance of schools. The list, obviously, cannot be
exhaustive. The schools have the freedom to plan their own
activities according to their own needs. While planning an activity the schools should ensure that it satisfies the following criteria:

1. The activity must be in accordance with the basic concept of Work Experience involving purposive, meaningful and manual work;

2. It should help the students in developing desirable work ethics and social values;

3. It should be suitable to the level of maturity of students;

4. It should generate enough interest among the students;

5. It should be easy to organize by the staff without much outside help and should not be a drain on school's resources; and

6. It should have most of the following dimensions:
(i) Identification of a problem
(ii) Observation of work situation
(iii) Participation in work situation or involvement in manual work
(iv) Cultivation of good habits and attitudes
(v) Conversion of waste material into useful and beautiful objects and
(vi) Production of goods/services.

1.6.3 Organization of Work Experience

The content of Work Experience will be based on the needs of the pupils on the one hand and on the resources available in the community and the facilities available in the school on the other. Since these will differ from place to place, no fixed programme can be prescribed for all the schools in the area, state or country. It is in keeping with this realization that suggestive syllabi in Essential and Elective Areas have been designed for Work Experience programme for the schools affiliated to CBSE. However, it has been ensured that it leaves less scope for varied conceptual interpretations.
Besides including Work Experience activities of a wide variety for upper primary, secondary and senior secondary stages which is not exhaustive, the suggestive list of activities under the Elective Area also includes prevocational courses as a part of the Work Experience programme for the secondary school stage.

The Essential Area covers the following six aspects of human needs:

(i) Food
(ii) Health and Hygiene
(iii) Clothing
(iv) Shelter
(v) Culture and Recreation and
(vi) Social Service

The purpose of this area is to bring about attitudinal changes and to develop readiness for continued productive work. Therefore every pupil has to undertake at least 60 per cent of activities pertaining to Essential Area in each class.
The activities in the Elective Area will give a vocational bias to the Work Experience programme. It may, therefore, require repetition or constant practice according to the time available. A school may select at least two elective activities depending on the availability of time, human expertise, raw materials etc., but a student will undertake only one activity in a class. This is to facilitate provision of funds and make small groups for practical work. A student has to cover at least 50 per cent of the syllabus under the activity he selects in each class in this area to ensure minimum level of competence.

In the teaching-learning process, teachers may adopt problem-solving approach. Pupils should be made aware of the problems related to their needs and the work that should be undertaken to satisfy their needs. They should be led to arrive at the solution of these problems by identifying the materials, tools, and techniques for performing work and services and by undertaking appropriate work.

If a school intends to introduce a Work Experience activity for which the syllabus is not given, the school may design its own syllabus to satisfy the criteria listed earlier.
Since different activities have been suggested for different classes, the most appropriate method of organizing the time-table is to have Work Experience period for all the sections of a class at the same time if the school has a large number of activities to offer, provided number of students per activity does not exceed 15-20. Alternatively, these may be organised sectionwise if there are only 2-3 activities for each class.

The Principal, in consultation with the Work Experience Committee of the school will prepare an Annual Plan of Instruction for the year in the prescribed proforma. Students are expected to keep a record of the activities under Essential and Elective Areas performed by them in a particular class in the prescribed proforma. This record is subject to inspection by the teachers, the Principal and the higher authorities and will be submitted for evaluation at the time of annual examination.

Teacher will also do continuous comprehensive evaluation of the students and keep a record in the prescribed proforma which is also subject to inspection by the Principal, the higher authorities and the CBSE officials.
1.6.4 Management of Work Experience in Schools

The effective implementation of Work Experience programme in schools should comprise the following three dimensions:

1. Scheme of work for the year;
2. Provision of funds and availability of resources—both in terms of expertise and materials; and
3. Orientation of teachers through INSET programmes.

To look after these three dimensions of Work Experience in schools, it is essential to have a Work Experience Committee under the Chairmanship of the Principal/Head of the school consisting of experts, teachers and students. This committee will have the following functions:

1. Preparation of the scheme of work for the year in a prescribed proforma.
2. Preparation of an estimate of funds for consumable and non-consumable materials for performing the Work Experience activities and use of resources, both men and materials.

3. Overall quarterly evaluation and monitoring of Work Experience programme followed by evaluation at the end of the academic session.

1.6.5 Teachers for Work Experience

All the teachers of the school should participate in the Work Experience Programme. Essential areas of Work Experience can be taught by all teachers after due orientation. In the elective areas teachers can teach elective activities after undergoing training/orientation in the concerned field. However, there may be some elective areas which may require teachers with specialized training. School may employ part-time experts from the community. School can also employ a Work Experience teacher specialized in one or two areas. He will also plan, co-ordinate and monitor the Work Experience programme in the school under the guidance of the Principal.
1.6.6 Allocation of Time

At least four periods per week are supposed to be spent on Work Experience in classes VI to XII, out of which equivalent of 2 periods may be outside the school hours. Out of the four periods for Work Experience, one period may be for the Essential activities and three periods for the Elective activities. Some of the activities may be performed during the morning assembly, recess, after school hours or during the time available otherwise.

1.6.7 Facilities for Work Experience

The schools will have the following facilities for the effective implementation of the Work Experience Programme:

1. Physical facilities consisting of accommodation, workshop, tools, equipment, raw materials, etc.

2. Teacher expertise consisting of specialized teachers and other subject teachers with proper orientation and training in concept, philosophy and methodology of Work Experience for specific activities.
1.6.8 Use of Community Resources

Community resources may be utilized for effective implementation of the Work Experience programme. But schools should also have funds to allocate minimum resources. Schools should also take advantage of the resources available in local business enterprises, workshops and work centres for work-site training.

1.6.9 Instructional Material

National Council of Educational Research and Training (NCERT) has prepared instructional materials in the form of curriculum guides, handbooks, sourcebooks, manuals, exemplar materials, etc. Schools may adopt/adapt these instructional materials after necessary modifications to suit their needs.

The syllabus guidelines in Essential and Elective areas will enable the teachers to implement Work Experience with correct conceptual interpretations.
1.6.10 Work Experience Products

Many Work Experience activities will result in the production of tangible goods. They will require a suitable means of disposal. For this purpose it is essential that the activities produce the quantity estimated in advance as per demand of the item/product. The products should be sold through co-operative stores in schools and exhibition-cum-sale at the time of school functions.

Performance of the students in the sale of products should be counted while evaluating them. They may also be given some incentive by giving them a part of the profit.

1.6.11 Evaluation of Work Experience

In the Scheme of Examination prepared by the Board, the evaluation of Work Experience of all classes has been left to the schools. However, the grades as awarded by the schools in classes X & XII will be reflected in the Board Certificates. It is, therefore, incumbent on the schools to draw good scientific programme for the evaluation of Work Experience.
Programmes planned by the schools for the evaluation of Work Experience should be:

1. Objective based
2. Comprehensive
3. Continuous, and
4. Dynamic

To fulfil these four requirements of evaluation the school must keep in view the objectives of teaching Work Experience listed earlier and try to make an assessment in respect of all of them. Especially the focus must be on the important behavioural changes expected through Work Experience. Important aspects to be evaluated are:

A. Progress And Product of Manual Work

1. Selection of materials
2. Selection of tools
3. Proper use of tools
4. Techniques adopted
5. Accuracy and finish, and
6. Cost estimation
B. Attitudinal Changes Through Work Experience

1. Dignity of labour
2. Respect for work and workers
3. Initiative and interest
4. Special commitment, and
5. Co-operation

C. Social Service

1. Willing participation in the activity
2. Organisation of work
3. Leadership, and
4. Efficiency

As mentioned above, the evaluation of Work Experience should be comprehensive which means that all the aspects mentioned above should be assessed. This is based on the important assumption that whatever is tested, is learned better, meaning thereby that if any aspect is not being assessed and students are aware of it, that aspect will not be learned properly by the students. For making comprehensive
evaluation possible, school will also have to use various tools and techniques for evaluation. One thing is clear that traditional written test is out of question for evaluation of Work Experience. It will be largely based on observational techniques. For this purpose check-lists and rating scales should be prepared by the schools.

It is also expected that the schools should draw a programme of continuous evaluation so that students are being observed and assessed all the time when they are taking part in Work Experience. In any case the evaluation should not be one shot affair coming at the end of the year. Levels of achievement of students in Work Experience should be periodically reported to the parents along with the progress report concerning academic achievement and it should also be reflected in the final result of the students.

The dynamism of evaluation of Work Experience implies that it should be used not only for measuring the achievement of students but should also have a diagnostic value and be capable of improving the achievement of students. The continuous assessment of students should be used by the teachers as a feedback for improving the level of motivation as well as the level of achievement.
For Classes X and XII the same tools and techniques as indicated above for use in the entire school be used. The grades of students should be reported to the Board for being reflected in the Board Certificates. These grades should be based on cumulative records meticulously maintained for all the students which should be available to Board authorities to inspect at any time. The grades should be sent to the Board on the prescribed proforma.

1.7 Work Experience Programme in The Asia-Pacific Region

Today multi-dimensional socio-economic, industrial and developmental changes are taking place globally and so also in the Asia-Pacific region. In the countries of this Region, it is perceived that students in general, harbour 'unrealistic' ambitions for higher academic studies and eventual entry into white-collar jobs. A review of the experience of the countries in the region in integrating productive work elements in general education reveals that in recent years they have either adopted new policies or restructured existing programmes for the introduction of Work Experience projects in general secondary schools.
1.7.1 General Work Education Programmes:

Countrywise Analysis

Work education programmes are an outgrowth of a thrust towards making school curricula more relevant to the needs, interests and aspirations of the young people. These programmes help in making the school curricula respond more directly to the needs of national economies by developing in young people usable and marketable skills.

In China, productive work has been included in the curriculum of general education. The underlying philosophy is to raise the level of social productivity and to develop well trained manpower. The work and skill education programme is well established in the primary, junior high and senior high levels. It is closely linked with moral education. The programme also helps in the development of aesthetic values.

The programme of Work Experience in India has been taken as a compulsory component at all stages of education to be provided through well-structured and graded programmes.
The purpose of such work experience is to develop desirable attitudes, values and habits of work for smoother transition to the world of work and a pre-disposition to the selection of a particular vocation later.

In the Republic of Korea, teaching of practical arts at the primary level helps students develop individual disposition of work orientation while middle schools tend to develop the skills and attitudes essential for citizenship in a democratic society, respect for work, inculcating pre-vocational skills, etc.

In Malaysia, it is referred to as pre-vocational elective at the lower secondary level of education. In this country, a well graded programme of work education is found at the primary level as well where practical business studies is integrated as part of mathematics syllabus to expose students to daily business transactions and basic calculations. At the lower secondary level, students follow general academic subject alongwith one of the four main electives of pre-vocational nature.
The programme of work oriented education in the Philippines is directed to linking education to productive work and skilled manpower development and is known as practical arts. In this country, the integration of work activities in all educational subjects seems to have become a general strategy of education. Work Experience course is organised as a separate subject to be taken by all students for one hour daily from the first through the fourth year of the secondary school.

Sri Lanka introduced vocational subjects in school curricula to introduce children to the world of work and to inculcate in them favourable attitudes towards dignity of labour. In Sri Lanka it is referred to as life skills.

In Thailand, skills and knowledge required as a producer, servicer and distributor and to operate one's own business are emphasised at the lower secondary school level. In addition to individual or personality related aims of work oriented education the interaction between education and productive work also manifests itself in social service or community work.
In Vietnam, productive work activities in general education are aimed at creating favourable conditions for pupils to directly participate in practical activities of production, thereby substantially contributing to the material well being of the local community. Productive work in general education schools in the Socialist Republic of Vietnam is of vital significance for building its economy and improving the living standard.

Thus, it will be seen that the philosophy for the inclusion of work oriented education in general education in different countries of the region reflects a broad similarity. Acquisition of work skills, inculcation of work ethics and development of work habits are some of the inseparable goals. It may be argued from the above that any curriculum policy which hesitates to remove the chasm between work and education would prove self-defeating. (Mishra & Sen Gupta, 1994)

Further, it is observed that students of this Region are engaged in Work Experience programmes, both within and outside the school. These programmes have a variety of
contents, viz: teaching of life skills, providing pre-vocational electives, conducting career guidance and career counselling programmes, integrating work activities in general education, placing students for on-the-job work and also introducing vocational/technical subjects like agricultural, home-economics, commercial and industrial art education as integral part of general education. There are also examples of "Earn While You Learn" projects and semi-commercial learning projects being run within the schools.

All these programmes and projects, however, aim at bridging the gap between the world of school and work, between theoretical and practical education and between general and vocational education. Right from the primary stage the programmes consciously endeavour to infuse in children a positive attitude towards work and workers, awareness about the work situations and work practice which in a subtle manner provide a vocational orientation to the young mind.

The programmes and projects described above also indicate that for bringing about an effective integration between education and productive work the projects or activities
chosen should be based on local needs and resources. The programme should be well planned and graded and the teaching-learning be so executed that awareness about the world of work, co-operative work habits and exploratory work experiences at the primary and upper primary or middle classes lead ultimately to pre-vocational skill orientation at the secondary level followed by vocational education at the senior secondary level.

1.8 Work Experience Programme as Implemented in Delhi Schools

Work Experience is a compulsory subject in school curriculum in Government and Government Aided Schools in Delhi from classes VI to XII.

Work Experience programme in the State has two types of activities, viz: (i) Core Activities, and (ii) Elective Activities.

Core activities include cleaning and maintaining of school premises and other social service oriented activities. Elective activities include skill based activities which may lead to production of finished goods. Besides, there are also subject based Work Experience activities. Thus, Work
Experience programme is an outgrowth both of a thrust towards making school curriculum more relevant to the needs, interests and aspirations of young people and of attempts to make school curriculum respond more directly to the needs of national economy by giving young people skills which are readily usable in the labour market. An analysis of various guidelines described above bring out the fact that for bringing about an effective integration between education and productive work the projects or activities chosen should be based on local needs and resources. The programme should be well planned and graded and the teaching-learning be so executed that the three aspects of "do I know?", "do I do?" and "do I have?" are properly emphasised such that awareness about the world of work, co-operative work habits and exploratory work experiences at the primary and upper primary stages ultimately lead to pre-vocational skill orientation at the secondary level followed by vocational education at the senior secondary level.

1.9 Few Major Innovative Experiments in Work Experience

The rapid expansion of work oriented education in the country has posed serious challenges to implementing
authorities all over the country. Several experiments and innovative projects have been tried out to meet these challenges from time to time in various States with varying degree of success.

Madhya Pradesh introduced, on a very large scale an "Earn While You Learn" programme for school students in collaboration with the Khadi and Village Industries Corporation. Rajasthan experimented with Work Experience through camp life. The five day camps which were made compulsory for students at the secondary level provided opportunities for activities in the areas of Community services, survey and collection work, National and emotional integration project work and cultural and recreational activities.

Kerala is yet another State which implemented systematically developed and meticulously planned Work Experience programme which included activities like Book-binding, Chalk making, Fruit preservation, Furniture work, Coir work, making Science equipment, Garment making, manufacture of Exercise books, etc. SCERT, Delhi conducted a pilot project on Work Experience-cum-Vocational Orientation Programme to Secondary School students. This project was
implemented with the active co-operation of various employer organisations. (Sehgal, 1994)

1.10 Need and Importance of the Study

A human being is a positive asset and a precious national resource which needs to be cherished, nurtured and developed with tenderness and care, coupled with dynamism. Rapid strides in the sphere of technology and maintenance of high pace of economic growth require a qualitative transformation in the workforce. In this context, initiation to work ethics, good work habits and creating a distinct work culture at the school stage have been considered crucial. The area of Work Experience in the form of socially useful and productive work in the pre-secondary and secondary classes is of basic significance in this context. Another fact that the researchers in the field should take cognizance is that the world of work is undergoing rapid and profound changes. The factors behind these changes are varied. Some of the factors of significance in the present context are: (a) The economy becoming global and competitive, (b) The changing profile of the learners, (c) Technology becoming all pervasive, and (d) Changing expectations of employers. The change factors have
far-reaching educational implications while preparing the youth for tomorrow's work force.

The programme of Work Experience as described earlier was introduced in the school curriculum for providing education in and through work. Learning by doing is the major plank of Work Experience programme. In the words of Mahatma Gandhi, education means drawing out the best in man-body, mind and spirit. While academic subjects predominantly relate to the cognitive development of children, the psychomotor and affective aspects of behaviour largely remain neglected. This leads to lop-sided development of a child's personality. Work Experience tends to rectify this aberration.

The concept of Work Experience as evolved over the years is not only laudable but desirable also. But the implementation of this programme in schools mostly remains on a theoretical plane. Large number of students in schools, over-crowded classrooms, lack of infrastructural facilities, lack of appreciation of the concept on the part of teachers and the educational administrators are some of the factors inhibiting the proper implementation of Work Experience programme.
Implementation of the Work Experience programme in the country involves a number of agencies for its effective co-ordination, administration, and supervision. The existing administrative apparatus is generally over-burdened with other routine jobs of the education department. Hence, it often fails to give the required attention to the Work Experience programme and to steer it up along the envisioned path. No uniform curricular structure of work education is implemented in the States. Some States have syllabi for all the classes with a suggested list of Work Experience activities, whereas in some other States, Work Experience is confined to some standard of Work Experience activities only. The routine type of textual materials are irrelevant for Work Experience because this curricular area is concerned with learning by doing. Teachers are not well conversant with Work Experience Programme.

Patterns of evaluation vary from State to State. In some States it is internal, while in other States it is a combination of both internal and external evaluation. Internal evaluation requires maintenance of cumulative records showing continuous performance of the pupils. Grades
of marks for Work Experience are not counted towards the award of certificates, though in some States these are shown in the final examination marks-sheet.

In the context of Work Experience, researches have to be viewed as an innovative way of accomplishing and doing things better, of discovering new relationship among facts and solving implementation related problems. In some States evaluative studies on implementation have been taken up which, however, have remained academic exercises only.

Some of the major studies relevant to the problem under study are: Vijaivargiya in Rajasthan (1969), Sali (1978) in Maharashtra, Reddy (1984) in Andhra Pradesh and Mishra (1985) in Assam. These studies have identified some problems relating to implementation of Work Experience Programme in the respective states as: non-availability of trained and specialist teachers, inadequacy of physical and other infrastructural facilities, problems in marketing of finished products, lack of integration of programmes with local resources, students needs and individual differences. Besides, it was found that a few schools had not provided for any type of Work Experience programme.

Thus, it is seen from the above that no systematic study of the total implementation of the Work Experience programme with all its dimensions taken into account and with a view to provide more comprehensive recommendations and guidelines for its implementation has been undertaken at the secondary stage in any state.
So, there is a definite need to undertake comprehensive critical study of implementation of the Work Experience programme at the secondary stage at school, District, State and National levels. In the NCT of Delhi, although the programme has been implemented right from its inception, yet hardly any systematic study has been done at the State level to critically assess the status of implementation and to understand the specific problems and aspects of implementation requiring interventions. Hence, there emerged the need of the present study. The present study was undertaken to comprehensively probe into the problem and critically analyse the various aspects of implementation of Work Experience Programme at secondary stage with the object to identify the bottlenecks so that remedial measures may be suggested for its effective implementation in the NCT of Delhi.

1.11 Statement of The Problem

The present study had been formally stated as: "A Critical study of the Work Experience Programme at secondary stage in Government and Government aided schools of Delhi".
1.12 Objectives of The Study

1. To study the development of the concept of Work Experience programme in a historical perspective;

2. To study the functioning of the Work Experience programme at the secondary stage in National Capital Territory (NCT) of Delhi;

3. To critically analyse the problems faced by the teachers and heads of the institutions in the implementation of Work Experience programme at the secondary stage in NCT of Delhi;

4. To study the problems faced by the students in carrying out the Work Experience activities at the secondary stage in NCT of Delhi; and

5. To suggest measures for the effective implementation of Work Experience programme at the secondary stage in Delhi.
1.13 Delimitations of The Study

A. This study was confined to secondary and senior secondary schools of nine educational districts of Delhi run by the Directorate of Education, NCT of Delhi.

B. The study includes teachers, head teachers and students of secondary and senior secondary schools only.

C. The study includes parents of the students studying in secondary and senior secondary schools of Delhi.

D. The study is confined to only government and government aided secondary and senior secondary schools.

E. The study includes boys, girls and co-educational secondary and senior secondary schools of Delhi.

1.14 Methodology

The present investigation critically studies the implementation of the Programme of Work Experience by following a descriptive survey method. Studies involving survey account for a substantial proportion of the researches done in the field of education. A wide range of educational...
problems, in fact, can be investigated through survey research. The survey approach to study educational problems not only describes and interprets what exists at present but also goes beyond mere gathering and tabulation of data. The survey method involves interpretation, comparison, measurement, classification, evaluation and generalisation—all directed towards a proper understanding and solution of significant educational problems. It brings into the focus of our attention existing educational problems and also suggests ways of solving them.

This study comprehensively explores and critically evaluates many aspects of the implementation of Work Experience Programme such as types and patterns of Work Experience activities, space requirements, infrastructural facilities, administrative procedures, financial support and its procedures, teaching staff, learning objectives, curriculum, teaching methods and evaluation in Government and Government aided secondary and senior secondary schools of Delhi. Based on the quantitative and qualitative analysis of the responses obtained and also on the basis of spot observations conclusions have been drawn and remedial action has been suggested keeping in view the usual constraints.
1.15 Sample

As mentioned earlier, the present study has been conducted on a representative sample of the population of secondary and senior secondary Government and Government aided schools of Delhi.

In the present study the representatives of all the components of population such as schools, heads of schools, teachers, students and parents have been included on random basis. In addition, all the staff members of the Socially Useful Productive Work (SUPW) Unit of the Science Branch of Directorate of Education, Delhi and the Department of Work Experience and Vocational Education (DWEVE) of the SCERT, Delhi have also been included in the study.

1.16 Tools

1. Four questionnaires - one each for (a) heads of schools (b) teachers (c) students and (d) SUPW unit Science branch, Directorate of Education, Delhi were developed by the investigator for the purpose of collecting data from them.
Two interview schedules - one for parents and the other for DWEVE, SCERT, Delhi were prepared and administered to collect required information.

An observation schedule was also developed to observe availability and maintenance of facilities and records relating to Work Experience programme, types of income generating or service oriented programmes carried out in each school and products prepared by students in these schools.

1.17 Analysis of Data

The data collected through the various sources have been critically analysed according to the objectives of the study mainly through calculation of percentages and qualitative analysis of verbal statements.