

CHAPTER - II

REVIEW OF RELATED LITERATURE

Contents:-

1. Commentry on Research Studies
2. Brief outline of Research Projects
3. Study of other literature

Researcher has tried to analyze a few research studies in the area of Work Experience and Vocational Education. These studies are divided in three parts :-

1. Research Studies;
2. Research Projects carried out by different institutions;
3. Study of Other Literature.

1. RESEARCH STUDIES :

Bhatt. K.C. (1972) compared vocational education of West Germany with the Vocational Education in India. This study was undertaken with the main purpose of drawing some conclusions from knowledge and experiences of German Vocational schools which could assist in evolving a detailed plan for vocational education in India.

Information about the Vocational Education in Germany was collected through a questionnaire given to 280 students of different schools in the city of Frankfurt, interviews with the Principals of Vocational School, discussions with their teachers and meetings with directors and representatives of industries. In addition, unpublished documents from International Research Center Library, Frankfurt were also consulted. For information about Vocational Education in India, Mr. Bhatt used the reports of various Commissions and Committees on the subject, questionnaire and interviews with the personnel in Indian Vocational and technical institutions.

The main conclusions of the study are in respect to attitudes of Germans towards vocational education, education's nature, administration, status and special provisions. As per the study, the Germans have a more positive attitude towards dignity of labor & hence vocational education in that country is established on stronger footing as compared to India. The education in Germany is supported both by public enterprises and government . There exists a sound system of apprenticeship training. Experts in different vocations are members of examination boards. Vocational Education is according to local needs. Girls also enjoy the same privilege as boys. Guidance bureau help students to offer suitable courses. There is an organized system of transfer from vocational schools to appropriate industry. Provisions for special classes for slow learners and also for in-service training for those who might have missed appropriate channels exist. There are Vocational teacher training institutes and suitable literature for all vocations in Germany.

Dawasthale, R. (1978) made a review of Secondary curriculum in the context of vocationalisation of Education. The important objective of the Study was to investigate the nature, degree and extent of vocationalisation achieved through the present secondary schools' educational curriculum. Identifying different areas in which vocationalisation can be achieved and to frame Syllabi of different Vocational Courses which can be introduced at different levels of Secondary education. Survey of Vocationalisation achieved, which was descriptive in nature, and construction of new Syllabi of Vocational Courses for Secondary Schools' were the two main methods of his study. The techniques used for data col-

lection were Interviews, Observations & visits to Schools.

The main conclusions and recommendations of the study were :-

Academic atmosphere is in favor of vocationalisation. Vocational Courses should begin from Class V. Few Vocational Courses should be framed for dropouts also. Vocational Courses should not be treated as Extra-burden on school authorities. One common Vocational School should be set up to meet the needs of Vocational Courses taught in various neighboring schools. A comprehensive program of vocational guidance is essential for vocationalisation. In Vocational Courses emphasis should be on practical training. A student should be given a Certificate for successfully completing the Course.

Kulkarni, B.C. (1975) Carried out an investigation into the attitudes of pupils, parents and teachers towards work experience. Main aims of the Study were : to measure the attitude of pupils, teachers and parents towards work experience; Difference in attitudes of Boys and Girls, of rural and urban pupils towards the work experience; Pupils preferences for different trades included under work experience; and to assess how far the objectives of work experience are realized in the schools.

A stratified random sample of 50 urban and 50 rural schools were selected from Miraj Taluka in Sangli district. The respondents selected from those schools included 100 teachers, 100 parents, 250 boys and 250 girls. And in order to measure the attitude, a scale was prepared according to the linkert method of summated ratings.

Major findings of the study were that 90 percent of pupils, 96 percent of teachers and 88 percent of the parents had a favorable attitude towards work experience. 'Drawing' was rated as first preference among the different crafts introduced. Need to develop a handbook for teachers of work experience and provision of suitable training to them, was emphasized. Kulkarni recommends introduction of rudiments of work experience at Standard IV and full fledged and compulsory subject in classes VI and VII . Availability of raw materials was told to be the basic criterion for selecting particular craft to be taught under work experience.

Mabel Lahi (1981) made a critical study of the work experience programme in Secondary Schools of Kerala. The major objectives of the study were :- a)to study the functioning of the work experience programme and the difficulties experienced in its working; b)to study advantages which the pupils get from the programme and their difficulties in participating in it; c)to find out pupils' attitudes towards work experience programme and their interest in it; and d)to find out Parents' attitudes towards work experience programme and to find out the improvements needed for the proper functioning of the work experience programmes in schools.

The study is based on a sample of 120 Heads of Secondary Schools, 282 teachers, 520 pupils and 242 parents. Questionnaires, attitude scales and interest inventories are prepared and used to collect data. Interview and Observation methods have also been

used to supplement the data.

The major findings are as follows:-

Schools Subjects are being given more importance than work experience programmes; Heads of schools have difficulties in organizing the work experience programmes for want of accommodation, funds, trained teachers and textbooks. Cleaning, maintenance of school building and beautification of class rooms and gardening are the most common activities in all schools. Most important changes found among pupils is that their aversion towards work is lessening; Parents and students have a very high favorable attitude towards work.

His recommendations are :-

Work experience Programmes be given equal importance to other subjects of school curriculum; A graded syllabus for the programme is necessary; More socially useful productive work to meet the Social need, are needed to be selected and the too simple and irrelevant activities be eliminated.

Few other studies carried out in this field are being presented through a chart indicated below :-

Table No. 2.1

Other studies conducted in this field

S.NO.	Researcher	Title of study	Major Findings :
1.	David, V.C. (1978)	Human Resource Planning in relation to employment and education in Madhya	1. The human resource development depends mainly on the general education in the right di-

S.NO.	Researcher	Title of study	Major Findings :
		pradesh.	rection.
			<p>2. Increase in population is one of major constrains of human resources development, in Madhya Pradesh, as it affected adversely the the employment and education relationship .</p> <p>3. The linkage of occupations in the modern sector with the higher education qaualifications has resulted in devolution of vocational and technical education especially at the secondary level.</p> <p>4. It is difficult to combine academic and vocational education for rural human resources deve-lopment because of lack of trained tea-chers, paucity of relevent courses and literature, inflexi-bility of present courses and fianan-cial constraints.</p>
2.	Jaleel Saheb B. (1980)	A study of Aca-demic and non-academic abili-ties in relation to the Vocational interest of the entrants to the Plus-2 stage of Schools in Tamil Nadu.	<p>1. Academic stream students are higher in their academic abilities than the Vocational stream-students.</p> <p>2. Choice of a stream by a student</p>

contd.

3. Kottya-raman Nair. P. Education in Kerala and the development of human resources.
- does not depend on his socio-economic status.
1. Self employment, technical skills and mobilisation of be important objective of education.
 2. Primary, middle and high - school stages are to be three terminals and diversified courses are to be provided at each terminal.
 3. Students, after their primary, middle and high school courses, as the case may be, should go as on self-employment and wage employment as per necessity.
4. Panny, S.M. (1981) Programme of Work - education for the Schools of Orissa
1. Programme of work experience should be responsive to local needs.
 2. To develop the concept of real work education, integration of school education with the real trade experience and linking it with the productivity is needed.
 3. Factors affecting adversely work experience are : - Negative attitude towards manual work, lack of resources, qualified teachers and provisions of examinations, Schedule &

Contd.

departmental Co-ordination.

5. Sahoo, P.K. Vocational preferences of Secondary school pupils

 1. Higher Socio-economic Class Students preferred electronics electrical, Home Science, agriculture, fisheries.
 2. Most preferable vocations for the Lower Socio-economic Class are agriculture, electronics, fishery, dairy farming, home science, Nursing etc.

6. Yadav, R.K. A Study of motives for the vocational preferences of Adolescents.

1. Needs are stronger Motives for Vocational preferences than values; and adolescents prefer those vocations which have potential to reduce their needs. Thus the result of the study gives some support to Roe's Vocational theory of need reduction.

7. Pillai, J.K. and Thanga Swami (1981) Vocationalisation at the higher Secondary stage of the 10+2+3 pattern of education

 1. Only 15 percent students expressed their desire to set up their own work shop. Finance is major problem in setting up their workshops. Only 25% teachers and pupils feel that students have been trained adequately to start their own business.
 2. Vocational streams is considered best suited to less able students.

CONCLUSIONS : Vocational education in Germany is well organized. Apprenticeship training is based on Sound System. There is an organized transfer from Vocational Schools to industry as the Industries are linked with vocational schools. Bhatt K.C. and Dwasthle strongly recommended implementation of vocational courses in India. Suggestion was made to implement Vocational Courses at Vth standard with an emphasis on practical training and vocational guidance.

While studies of Kulkarni and Lahi proclaim that teachers, students, and parents have positive attitude towards vocationalisation, Pany's findings are contrary. Beneficiaries have negative attitude towards work experience. Studies by lahi, Pany and Pillai state that work experience programme, human resource programme and vocationalisation programme have suffered due to lack of funds, trained teachers and paucity of suitable courses. Study of Yadav reveals that needs are stronger motives in the choice of vocational courses, study by Jalel Saheb discloses that ability of academic stream students is greater than the vocational students. There is No difference as far as socio-economic status is concerned. Studies by Kuttyraman and Pillai tell us that Education must prepare students for self-employment and courses, in schools should be based on local needs.

To sum up, all these studies show that :-

1. The Vocational Education in the school curriculum is necessary in India for it's development.
2. Suitable Courses be framed and necessary funds and well trained teachers be made available for the Courses.

3. Vocational Courses in schools should be linked with Industries to have an organized system of transfer from school to Industry.

2. RESEARCH PROJECTS

Under this heading, Researcher has tried to analyze the reports of Various Projects undertaken by different State Governments' and other national agencies. The total number of projects is 5.

A. Name of the Project : Study of Vocationalisation of Education at the Higher Secondary Stage sponsored by Planning Commission, Government of India (1985).

Major Objectives of the Study :

To make a study of the Criteria on which the institutions of Vocational Education are founded; To study the present position of the Vocational Courses in terms of the admission, procedures, syllabus, teaching methods and evaluation. To know the types of students who opt for vocational courses with reference to their Socio-economic status, academic standard and sex. To find out attitudes of students towards the Courses. To investigate present position of teachers of Vocational Courses in terms of their qualifications, experience and attitude towards the Course. To identify the problems faced by the teachers, students and the management in the institutions running the Courses. To find out the expectations of the employers from these Courses with reference to the products in terms of their skills and abilities. To know the placement of the products of the Courses in the Government, Private sectors and self employment. To recommend

necessary suggestions for the improvement of the Course at the Higher Secondary Level.

Design of the study :

All vocational Institutions in Maharashtra, Karnataka and Gujrat, Students, teachers and Principals of these institutions constituted the Population of the Study. The institutions were sampled on the basis of representativeness of their locations in different zones of respective States and the courses offered therein. All Principals, teachers available at the time of data collection were included as the Samples of the Study.

For the purpose of data collection, General Information Sheet, Principals' questionnaire, Teachers' Questionnaires and Students' Questionnaire were constructed.

Major findings of the study :

Vocational Courses were started in the year 1977 in Karnataka, in 1979 in the States of Gujrat and Maharashtra. Vocational institutions are situated in urban areas and have not touched the areas of rural regions (in 1985). Enrollment in these institutions in all the three states have been increasing every year. Drop out rate has also been quite low, that is 10 percent in class XI and 3 percent in class XII . And the students of vocational courses secure high percentage of marks. But the institutions do not have adequate facilities. Most of the students are male and from Hindu Religion. In Gujrat students belong to backward communities while in Maharashtra, most of them belong to General Castes. Age Group of most of the students is Normal i.e. 15 to 17

years at the Plus Two Stage. Maharashtra could attract better students as regard to their past academic record than Karnataka and Gujrat. Most of the students in Karnataka are comparatively economically poor. Most of the students of Gujrat and Maharashtra States belong to middle and high class families. The reason of joining vocational courses was to get employment at an early stage.

Teachers are mostly Post Graduate and also Technical degree holders . They are qualified academically but lacked practical experience. Due to poor salaries good teachers are not attracted.

Syllabus is lengthy, theoretical and less practice oriented. Text Books are costly and are not available in regional language. There is a need to improve infrastructure facilities in all the schools. Evaluation system is reported to be satisfactory in all the three States. Grants are given by the Government but are inadequate to meet the expenditure of Institutions and the Courses.

B.Name of the Project : Vocationalisation of education in Delhi- A study by Delhi Administration. (1984)

Objective of the Study :

To find out whether the Vocationalisation of Education in Delhi has been introduced according to the plan and the benefits of the study are as have been aimed .

Design of the Study :

Fifteen Senior Secondary Schools, which had introduced vocational courses at Plus Two Level, were the samples of the study. Data were collected through Questionnaire and Interview schedule.

Findings of the Study :

There is no proper arrangement for regular and proper appointment of teachers for the Courses. Vocational Teachers are appointed on ad-hoc basis and they are paid Rs. 450/- per month. This payment is also not regular and sometimes made after six months or even after a year. Teachers of Vocational Courses are not getting salary at par with the teachers of academic Courses. Some Courses are introduced in certain institutions with No consideration of the availability of infrastructure facilities either in the institutions or locality and the possible job opportunities for the students. Students of Textile & Designing, Food & Nutrition, and Health Care & Beauty Culture are getting fairly good training in their fields. But Electric Technology Course lacks trained teachers. Commerce based Courses don't have Practicals. On one hand Students of Vocational Courses are not being fully adsorbed in employment and there is surplus situation, but on the other, employment exchange shows the shortage of technical personnel like electricians, drivers, painters, mechanics and fitters etc. There is no arrangement for on the Job training for the Courses. The Pass-outs from Vocational Courses are quite ignorant about the utility, employment opportunities and facilities available for starting their own trade on the

basis of the skill they had achieved through the Course. There is also no guidance & placement Cell to guide the beneficiaries in selection of their subjects, placement and financial availability. Text-books for the Courses are not available. Students have to rely only on the Notes dictated by a teacher. While preparing Syllabi of Vocational Courses', Employers or their representatives are not called and consulted and the Syllabus often does not meet requirements of the Employers. Courses could not become popular due to lack of vertical mobility and employment opportunities.

C.Name of the Study :

A Critical Study of Vocationalisation of Education Programme in Andhra Pradesh (Sept. 1981), carried out by NCERT.

Objectives of the Study :

To study the organizational set up to implement the Vocational Courses. To find out merits and demerits of the Vocational Programme in the State and to find out whether the Courses are selected on the basis of vocational surveys. To understand the problem faced by the Heads of the Institutions in running the Courses along with the role of the co-ordinating institutions. To know about the infrastructural facilities available for the Courses in the institutions. To find out the background of the teachers and students of the Courses. To study the adequacy of the financial provisions made by the State Government; To know the various curricular issues and problems associated with different vocational areas. To ascertain the views of students on Job-opportunities and vertical mobility. To find out the admis-

sion criteria and selection procedures of the students admitted by the institutions.

Design of the Study :

Data was collected from 56 schools of the state through Interview and Questionnaire.

Major Findings of the Study :

Directorate of Higher Education and the Board of intermediate education share the responsibility of implementing the Scheme in the State. Teachers of Vocational Courses are of three types : viz - (i) Diploma Holders, (ii) Degree Holders and (iii) Post-graduates. Regular full time teachers as well as part time teachers from co-ordinating institutions are employed for the Courses. Students belong to all socio-economic stratas and are from all castes. Syllabus is not well defined. Practical aspect differs from one Course to another, that is, in some courses Practical Training is more than the other courses. Students feel practical training is insufficient. Courses are offered with one co-ordinating institution therefore problem regarding infrastructural facilities is not faced. Students passing out of the courses go for higher studies while a few try to get jobs. After passing out of the Plus Two stage, few student, being still less than eighteen years do not get jobs because of under age while the employers also do not recognize these courses and do not give employment on the basis of the courses. Although Government sanctions adequate funds for the courses, delay in making these funds available, after the sanction to the institutions cause problems in the utilization of funds for the courses.

D.Name of the Study :

" Follow up Study of Vocationalisation of Education in 13 Junior Colleges of Karnataka (1978) (conducted by the NCERT) "

Major Objectives of the Study :

Whether the vocational Courses are selected on the basis of any Vocational Survey conducted in each district as per recommendation of the Council ? And whether the selected Course are relevant to the needs of the district ? Whether the institutions are selected on the consideration that they possess adequate infra-structural facilities, financial stability, reputation for academic excellence, good response from the students' community, possibility of collaborative arrangements for on the job training ? To study the background of teachers. To know the facilities provided by the Government. To understand the attitude of students towards Vocational Courses. To Study evaluation pattern of the Courses. To investigate about the placements of Vocationally trained students.

Design of the Study :

Sample of the study are the 13 Junior Colleges offering Vocational Courses. Data was collected through Questionnaire and Interviews of the Heads of institutions and teachers.

Findings of the Study :

There is a separate directorate with adequate supporting staff to implement the Scheme in the State. Before starting the Courses, though no survey was conducted, yet Courses have been

selected on the basis of recommendations made by experts. Schools for the Courses are selected on the basis of infra-structure available, interest and enthusiasm shown by the Principals and the managements of the institution and after ascertaining the capability of the institution to run the scheme successfully. All the 13 Colleges are Private College and none of them is a government institution. Admission criteria is based on merit. But only such students seek admission to vocational courses who do not get admission in any other course. Teachers, are ordinary graduates and do not have any practical experience to teach the Course. According to the beneficiaries, Syllabus is not well defined. There is a Co-ordinating institution for each Course. Students are required to go to the Co-ordinating institution for practicals. But institutions are situated at a great distance due to which students face problems. Libraries are not suitably equipped for the Course. Most of the students come from Lower Middle Class. Majority of students offering Vocational Courses are third Divisioners in their S.S.L.C. examinations. There are a few IInd divisioners and 1st Divisioners also. Most of the students are desirous of getting employment on their completion of the Course.

E. Name of the Study :

" A critical Study of Vocationalisation of Education in West Bengal (1979) "

Findings of the Study :

Head masters have very poor opinion of aims, objectives and philosophy of the Scheme. Grants are sanctioned but not fully

used. Teaching staff is not qualified. Text Books are not available. Students want Jobs and not mere admission in the Courses.

CONCLUSIONS :

A careful study of all these Project Reports shows that these projects were undertaken mainly to study implementation plan of vocationalisation of education. Major Issues for the studies were : management; funds; quality of pass outs. Findings of the reports reveal that vocationalisation of Education Scheme is being managed by already existing Education Boards with a solitary exception of the State of Karnataka where a separate Directorate has been set up. Staff, to teach these courses, is partly regular and whole time, partly temporary and part time with lesser remunerations than the teachers of the academic courses. Though there is a link with professional Schools but because of certain handicaps it is not fully utilized. Text Books are not available. Students, from all walks of life come to these courses with an aim to get employment on completion of the Courses.

3. STUDY OF OTHER LITERATURE

Besides the study of the Research Literature, researcher has also consulted other literatures available on vocationalisation of education. This literature includes :

- a. National Education Policy of 1986.
- b. Vocationalisation under the Seventh Five Year Plan (1985-90).
- c. Report of the Committee under Indian Council for technical

Education.

d. National Seminar on Vocational Education (1985).

a. National Education Policy of 1986 has laid emphasis on vocationalisation at the Higher Secondary stage. It reads : " The Vocational courses at higher secondary stage are to be regarded not as a preparing an increasingly large number of school leavers for different vocations in life. The need for vocationalisation of higher secondary education has been conceded by all, but the problem in its implementation may be appreciated by the fact that only a small percentage of students population has been covered by vocationalisation in the past nine years ."

Implementation document, published on vocationalisation, sets out following targets for the implementation :-

- (i) Setting up a Joint Council on Vocational Education;
- (ii) Setting up Bureau of Vocational Education;
- (iii) Setting up State Departments of Vocational Education;
- (iv) Setting up Central Institute of Vocational Education;
- (v) Strengthening organizations like NCERT, RCC, TTIs etc.

These organizations will be responsible for carrying out various functions such as curriculum formulation, training of teachers, management and vocational surveys etc.

b. Vocationalisation under the Seventh Five Year Plan : Vocationalisation of education at Plus Two stage has been included in the Seventh Five Year Plan (1985-90). The plan mentions :-

" In view of the importance of linking education with productivity, a major impetus will be given in the seventh plan to voca-

tionalisation of the higher secondary stage. Facilities for vocational education will be suitably diversified to cover a large number of fields in agriculture, industry, trade and commerce and service. It will be ensured that there is no duplication of courses between technical and vocational institutions and the schools. The skills imparted will be of adequate standard for securing gainful employment or self employment. At the same time opportunities for pursuing higher general and professional education must be provided. "

c. Report under all india council for technical education:

Ministry of Education appointed a committee to suggest ways of Implementation of the 'Vocationalisation Programmes'. The Committee was constituted by the Chairman, All India Council for Technical Education. Committee was known as 'National Working Group and its report is known as 'Vocationalisation of Education'.

In this report, suggestions have been given for vocational education at all levels. about Higher Secondary Stage, it says :-

(1) The vocationalisation of higher secondary educations aims at an educational transformation involving large number. The programme, therefore, must be flexible and based on a process interaction.

(2) The components of the curriculum for vocational education programmes are :-

(i) Language

(ii) Related subjects and foundation courses,

(iii) Vocational theory and practice.

(3) Nearly 2.4 Lakhs of students in the higher secondary stream for 10 percent diversion and 6.9 lakhs of students for 29 percent diversion by the year 1990 should be covered by vocationalisation programme during seventh five year plan.

(4) Vocational Courses should have relevance to the economic life in region.

(5) Duplication of efforts made in certificate level courses such as those offered in ITIs and diploma level courses offered in polytechnics shall be avoided.

(6) The vocationalisation programme should aim at making optimum use of the institutional, industrial and organizational facilities available in the neighborhood for instruction and training.

(7) The relevant sections of the community in general must be intimately involved in the formulation and implementation of the vocational courses.

d. National seminar on vocational education, Nov. 1985 : On the request of Ministry of Human Resource Development, NCERT organized a seminar in 1985, known as National Seminar on Vocational Education. The report of this seminar recommends :

(1) There should be two distinct stream at higher secondary level of academic education and vocational education.

(2) Public acceptance to this programme should be enhanced.

(3) Vocational courses can be offered in existing schools or there may be separate schools for the purpose.

(4) Vocational courses should be designed for Rural, Tribal and

Urban poor.

(5) SUPW should be a base for the Plus Two Stage.

(6) On the job training should be made obligatory for all Courses.

(7) In order to accommodate passed out students of vocational course, suitable modifications in the existing rules of recruitment be made.

(8) Vocational Courses should be terminal in nature.

(9) Vocational Courses should be of two years or more duration.

(10) Teachers should be part time and arrangement for their training should be made in ITIs , NCERT etc.

(11) There should be a system of continuous evaluation.

(12) Incentive should be provided to the students for self employment.

(13) NCERT should provide Model Instruction Material.

Seminar on vocationalisation of secondary level education was held in the institute of Applied Manpower Research on March 1986. In which Dr. K.S. Chacha presented a paper on 'Status of Vocational Education and Emerging Needs for Restructuring the Systems. Prof. C.K. Misra threw light on 'Manpower (teachers) needs for vocationalisation'. Dr. N.P. Singh talked about 'Manpower needs for Vocational Education'. Dr. Purnima Mathur discussed 'Present Perspective and its impact on technological changes'.

National Institute of Educational Planning and Administration (NIEPA) published reading material in 'Planning and Management of Vocationalisation of Education at Plus Two

Stage' and "Orientation programme in technical education and vocationalisation of Secondary Education for Women Polytechnic Educators and Administrators of Jammu & Kashmir. NIEPA had conducted a workshop on Development of Implementation Strategies for Vocationalisation of Education at Plus Two Stage."

CONCLUSIONS :

It is evident from the above discussion that Vocationalisation of Education is of prime importance as has been emphasized in the New Education Policy and Seventh Five Year Plan. Report of Sri Kulandaswami (Chairman, All India Council for Technical Education) presents minute details of its implementation NIEPA Report tries to eliminate lacunas in this direction and improve upon it.