

**A STUDY OF VOCATIONAL EDUCATION AND ATTITUDES
TOWARDS VOCATIONALISATION OF EDUCATION IN
EAST KHASI HILLS**

ABSTRACT

**THESIS SUBMITTED
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN EDUCATION**

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Investigator : Sherwin M. Sungoh

To



**DEPARTMENT OF EDUCATION
NORTH-EASTERN HILL UNIVERSITY
UMSHING, MAWKYNROH
SHILLONG**



1989

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ABSTRACT

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1.0 INTRODUCTION

Vocationalisation of Education and Vocational Education have been major concerns in the context of an overall transformation of the educational system in India. Vocationalisation of Education according to the National Policy of Education (1986), is meant to enhance individual employability, to reduce the mismatch between the demand and supply of skilled manpower, and to provide an alternative for those pursuing higher education without particular interest or purpose. Vocational Education will be a distinct stream, intended to prepare students for identified occupations spanning several areas of activity.

1.1 THEORETICAL BACKGROUND OF THE STUDY

The study and its setting, unemployment, manpower planning, technical and vocational education in Meghalaya have been dealt with. The meaning of Vocational Education and concept of education have also been depicted. Vocational Education during Five Year Plans, and the different aspects of attitudes were discussed in chapter one.

1.2 REVIEW OF RELATED LITERATURE

A number of Commissions and Committees, international and national in outlook, have emphasized the need for Vocational Education and Vocationalisation of Educational;

particularly at the secondary stage. Studies pertaining to Vocational Education and Vocationalisation of Education have also been conducted by different researchers. Nagaraju (1971), Sharaduma (1972), Dharmadhikari (1973), Kulkarni (1975), Sali (1978), Goyal and Chopra (1979), Somaiah (1980). Lahi (1981), Srivastava and Srivastava (1983) stressed on the need and importance of work-experience in the school curriculum. Bajpai and Seshagiri Rao (1980), Savur (1980) and Savur (1982), indicated the scope of SUPW. Vasudevan and Feroze (1974) and Kumar (1975), showed the need and the requirement for introducing vocational guidance in the school level and plus two level. Dewasthalee (1978), Chikermame (1979), Desai and Patel (1981), Thimmaiah et.al (1981), Soundravalli (1984) and Bareh (1989), presented their findings and recommendations regarding Vocational Education and Vocationalisation of Education. Regarding vocational preferences, Rai (1971), Urmila (1976), Sahoo (1977), Yadav (1980) and Raina (1987) revealed the vocational preferences of high school and secondary students and also rural and urban students.

1.3 METHOD AND PROCEDURE

1.3.1 The design of a descriptive type research conducted by investigator is discussed with its methodology and procedure sequentially. The rationale for undertaking

the study has also been included since it was evolved out of the contents of chapter one and two.

1.3.2 Statement of the problem: The problems of the study was stated as follows: "A study of Vocational Education and Attitudes towards Vocationalisation of Education in East Khasi Hills." The problem was subdivided as follows:

- i. What are the vocational courses available in East Khasi Hills?
- ii. Which are the vocational courses in great demand in East Khasi Hills?
- iii. What are the current attitudes of the plus two level students towards Vocationalisation of Education in East Khasi Hills? and
- iv. do they have positive attitudes towards Work Experience Socially Useful Productive Work, Vocational Guidance, Vocational Education and Vocationalisation of Education.

1.3.2 The operational definitions of the terms used are given in caption 3.3.

1.3.3 The objectives - The present descriptive type research was designed to:

- i. find out the nature and extent of educated unemployment in East Khasi Hills;
- ii. study the present status of Vocational Education existing in various institutions in East Khasi Hills;

- iii. measure the current attitudes of preuniversity students in East Khasi Hills towards Vocationalisation of Education by constructing an attitude scale;
- iv. identify the problem of Vocationalisation of Education in East Khasi Hills; and
- v. suggest measures for effective implementation of Vocationalisation of Education in East Khasi Hills.

1.3.4) The null hypotheses were formulated for testing the attitudes of the different groups of preuniversity students towards Vocationalisation of Education. (vide Caption 3.5).

TABLE 6.1
Description of Sample and Population

Population	N	1619	636	2255	1251	594	1845	2870	1230	4100
	%	39.49	15.51	55.00	30.50	14.49	45.00	70.00	30.00	100.00
Sample	n	395	155	550	305	145	450	700	300	1000
	%	39.50	15.50	55.00	30.50	14.50	45.00	70.00	30.00	100.00

1.3.5) The tools used for the present study are:

- i. Unstructured interview
- ii. Attitude scale constructed by investigator (Likert Type)
- iii. Personal Information Blank.

1.3.6 The reliability of the constructed attitude scale was found to be 0.92 (Test-retest Method) and 0.88 (Split-half method). The scale constructed can be said to have content validity and high reliability.

1.3.7 Procedure for Data Collection: With regards to the information gathered for Vocational Education, Secondary data from various sources were collected. Interviews with difference officers connected with Vocational Education were held to find out the problems and the present status of Vocational Education.

The attitude scale was administered to the preuniversity students in their classroom in a natural setting. After creating proper rapport with the students the investigator requested the students to read the instructions carefully and the necessary directions were given to them orally. They were then further requested to give their responses. The average time taken for its administration was 40 minutes. The response sheets were then collected after the students had finished their responses.

1.3.8 Statistical techniques Used: The main techniques used for construction of the ASVE were Item Discriminating Power and critical ratio for 80 statements in the tryout of the attitude scale. For the analysis of the data Measures

of Central Tendency, viz. Mean, Median and Mode, Measures of Dispersion viz. Range, standard deviation, Skewness and Kurtosis were used. Inferential statistics was also used to find out the significance of the difference between means, for comparison between different groups.

1.4 SCOPE AND LIMITATIONS

The study has the scope of optimising the utilisation of educational resources to upgrade the know-how, skills and competence of the educated contributing for rural and urban development. The findings of the study will be applicable to a great extent to other Districts of Meghalaya too, where the Government has to implement Vocationalisation of Education.

- i. The present study was limited to the second year preuniversity students (1988-89) studying in the colleges of East Khasi Hills. Plus two students of the central schools were not taken, for they belong to a heterogeneous group.
- ii. In the present study, available secondary data was collected from Secretariat Meghalaya Government relating to Vocational Education. Because of scanty information it seems that it is not much reliable.

1.5 CONCLUSIONS

The following are the results of the study.

1.5.1 Vocational Education

There are two sections in the results of Vocational education:

i. Unemployment: From the findings analysed from the secondary data obtained from the employment exchange. it was found that a number of adults are still remaining jobless. Statistics relating to the extent of unemployment is not much reliable because of scanty information.

However it was found that registration per year with employment exchange has risen from 5.2 thousand in 1974 to 10.2 thousand in 1976, but came down to 5.8 thousand in 1980 and increased further to 10.4 thousand in May 1989. The placement effected in a year is also not reducing the number of unemployed on the live registers.

ii. Status of Vocational Education: There are only three institutions imparting Vocational Education in East Khasi Hills. They are (1) The Industrial Training Institute (ITI), Shillong, (2) Shillong Polytechnic, and (3) Don Bosco Technical Institute, Shillong.

The courses offered are, Electrician, Wireman, Fitter, Welder, Stenography, Mechanics (Motor/Vehicle),

Carpentry, Draughtsman, Mechanics (Radio and T.V.), Plumber, Typing, and Dressmaking, Cutting and Tailoring, Hand Composing, Machinists, Printing Machine, Operator, Book-Binding and Electronics.

There are also a few voluntary agencies like YMCA, etc. giving Vocational training in Stenography, Typing, Mechanics, Welding, etc.

1.5.2 Vocationalisation of Education

The following are the major findings regarding the students ATVE.

The Mean Score of the students was found to be 62.65 and the standard deviation was 9.48. The findings indicates that the students attitude towards Vocationalisation of Education was favourable.

- i. There was no significant difference between the male and female students in their ATVE.
- ii. There was a significant difference between the tribal and non-tribal students at 0.01 level in their ATVE. The mean score 63.24 of the tribals was found to be higher than the mean score 61.18 of the non-tribals.
- iii. There was a significant difference between Arts and Commerce students at 0.01 level in their ATVE. The mean score 64.95 commerce students was higher than the mean score 61.69 of ARTS students.

- iv. There was a significant difference between arts and science students at 0.01 level in their ATVE. The mean score 64.22 science was found to be higher than the mean score 61.69 of arts students.
- v. There was no significant difference between commerce and science students in their ATVE.
- vi. There was no significant difference between urban and rural students in their ATVE.
- vii. No significant difference in the attitudes of preuniversity students exists between WE and SUPW.
- viii. No significant difference in the attitudes of preuniversity students exists between WE and VG.
- ix. A significant difference in the attitudes of preuniversity students existed between WE and VE at 0.01 level. The mean score 13.22 of WE was higher than the mean score 12.57 of VE.
- x. A significant difference in the attitudes of preuniversity students exists between WE and VEnt at 0.01 level. The mean score 13.22 of WE was higher than the mean score 11.36 of VEnt.
- xi. No significant difference in the attitudes of preuniversity students exist between SUPW and VG.
- xii. A significant difference in the attitudes of Preuniversity students exist between SUPW and VE at 0.01 level. The mean score of 13.17 of SUPW was higher than the mean score 12.57 of VE.

xiii.A significant difference in the attitudes of preuniversity students exists between SUPW and VEnt at 0.01 level. The mean score 13.17 of SUPW was higher than the mean score 11.36 of VEnt.

xiv.A significant difference in the attitudes of preuniversity students exists between VG and VE at 0.01 level. The mean score 13.32 of VG was higher than the mean score 12.57 of VE.

xv. There was a significant difference in the attitudes of preuniversity students exists between VG and VEnt at 0.01 level. The mean score 13.22 of VG was higher than the mean score 11.36 of VEnt.

xvi.A significant difference in the attitudes of preuniversity students exists between VE and VEnt at 0.01 level. The mean score 12.57 was higher than the mean score 11.36 for VEnt.

A summary of the findings is given in Table 6.2 of the following page.

1.6 EDUCATIONAL IMPLICATIONS

1.6.1 Vocational Education

1. In Tribal areas educated unemployment was found increasing. Most of these unemployed people were found to have arts background. They did not possess skills for any occupation. Due to disappointment many of the tribal youth join anti-social organisations, anti-national

TABLE 1.0

Summary of the Findings

Groups	N	M	SD	't'	Remarks
1. Male	550	62.76	9.81	0.53	NS
Female	450	62.44	9.21		
2. Tribal	700	63.24	9.48	3.21	0.01
Nontribal	300	61.18	9.23		
3. Arts	650	61.69	9.61	3.29	0.01
Commerce	100	64.95	9.17		
4. Arts	650	61.69	9.61	3.74	0.01
Science	250	64.22	8.89		
5. Commerce	100	64.95	9.17	0.68	NS
Science	250	64.22	8.89		
6. Urban	933	62.54	9.55	1.13	NS
Rural	67	63.65	7.72		
7. WE	1000	13.22	2.69	0.41	NS
SUPW	1000	13.17	2.74		
8. WE	1000	13.22	2.69	0.76	NS
VG	1000	13.32	3.15		
9. WE	1000	13.22	2.69	5.34	0.01
VE	1000	12.57	2.75		
10. WE	1000	13.22	2.69	14.98	0.01
VEnt	1000	11.36	2.86		
11. SUPW	1000	13.17	2.74	1.14	NS
VG	1000	13.32	3.15		
12. SUPW	1000	13.17	2.74	4.89	0.01
VE	1000	12.57	2.75		
13. SUPW	1000	13.17	2.74	14.45	0.01
VEnt	1000	11.36	2.86		
14. VG	1000	13.32	3.15	5.67	0.01
VE	1000	12.57	2.75		
15. VG	1000	13.32	3.15	14.57	0.01
VEnt	1000	11.36	2.86		
16. VE	1000	12.57	2.75	9.64	0.01
VEnt	1000	11.36	2.86		

groups and underground elements. So unemployment of the education is a cancer that is affecting the tribal society.

2. The current status of Vocational Education in East Khasi Hills is far from being satisfactory. The output is not in proportion to the input. So quantitative and qualitative improvement of Vocational Education is a must for development of the State.

1.6.2, Vocationalisation of Education

1. The finding that there was no significant difference between the male students and female students in their ATVE implied that Vocationalisation of Education found fertile soil among the youth and coeducation colleges can be established with diversified curriculum for different groups of students based on their aptitude irrespective of the sex factor.

2. The finding that the tribal students were found to have higher ATVE implied that the services of the majority of the tribals could be used for middle level manpower needed for the development of the state.

3. The commerce students were found to have the highest attitude the Science students higher attitude and the Art students high attitude implied that education must

be occupation oriented and it should have sufficient diversification to suit the manpower needs of the society. Training in skills related to any occupation enable the learner to become competent and confident to face the realities of work of work.

4. No significant difference was found between rural and urban college students in their ATVE. It implied the same positive attitude as that was found among urban students. In hill areas the town areas are not well developed. Hence in tribal areas agro-based industries and occupations priority irrespective of rural and urban areas.

5. The attitudes of P.U. students towards the competent of Vocationalisation of Education was found in the order of importance, VG, WE, SUPW, VE and VEnt. Among them students perceived vocational guidance as the most important. This was because the schools/colleges could not provide VG. Many teachers avoid it, since it is not part of the curriculum. Similarly the attitudes of students towards WE and SUPW are positive. The teenagers prefer work with hands instead of continuous theory classes. As there are limited Vocational Education in East Khasi Hills it has not become very attractive and Vocational Environment needs a lot of development to attract students

for vocational courses.

6. The mean scores of the P.U. students in their ATVE was found to be 62.65 which indicated favourable attitude towards Vocationalisation of Education.

1.7 SUGGESTIONS FOR IMPROVEMENT

1.7.1 Vocational Education

1. Taking into consideration the increasing unemployment among the educated it is necessary to increase step by step the number of vocational courses and vocational institutions based on the growing demand especially for the non conventional courses.

2. Science and Mathematics Education at school level and college level should be improved by arranging enrichment courses, remedial course and bridge courses especially for the tribal students. Only on a firm foundation of school education qualitative improvement can be attempted. For this qualified and trained teachers should be appointed at all levels of school education and college education.

3. The following vocational courses computer, technology, electronics, stenography, typing, mechanic (Radio & T.V.), electrician, motor mechanics, machinist, cutting and tailoring, food processing and preservation, dairy husbandry

and fish culture, were found in great demand in East Khasi Hills, so arrangements should be made to offer these courses either through formal and nonformal education.

4. Out of school youth, the physically handicapped and dropouts from high schools also should be given skills through anyone of the training courses suitable to them through nonformal education so that they can also live with dignity.

5. To improve the quality of existing Vocational Education, aptitude test may be conducted for selecting the right aspirant to the right job and the right stream.

6. Manpower planning for the next twenty years may be done and according to that vocational courses may be planned.

1.7.2 Vocationalisation of Education

1. A survey of the facilities available for Vocationalisation of Education in the high schools may be conducted. And those schools which satisfy the essential minimum facilities should be given the opportunity of Vocationalisation of Education by raising its status. This may be done step by step on an experimental basis, one in each district in the initial stage extendable to other schools



in due course. Nowadays schools can make use of the talents of their teachers for Vocationalisation of Education.

2. Career masters should be appointed in all high schools to give educational and vocational guidance to the students.

3. A Vocational Guidance Bureau should be set up in each District and in the university to coordinate the guidance services at school level, college level and the university level. The mass media especially TV and the newspapers should have regular programmes for Vocational Guidance and Educational Guidance. To facilitate this scheme it is necessary to have an educational channel separately in Doordarshan.

4. In the absence of qualified teachers for Vocationalisation of Education, the existing teachers who are interested in the scheme may be selected and special in service courses may be conducted to equip them with the necessary teaching skills for Vocationalisation of Education.

5. The school complex programme may be reactivated to help teachers to understand the innovations and changes and coordinate their activities in each area.

6. Evening classes and morning classes and Distance Education Programmes may be arranged to improve the academic qualifications of those who had opted for Vocational Education.

7. In many offices in Meghalaya State the records are maintained in such a way that they cannot be used after a few years for reliable data. So steps should be taken to maintain records with upto date information to facilitate better planning, coordination and implementation.

8. In some of the schools SUPW has been introduced but there are often no qualified teacher for that, since it is not an examination subject, it is not given the status it deserves neither by teachers nor by students. Hence attempts may be made to evaluate and improve the quality of SUPW in schools.

9. The emerging society is expected to be a learning and working society. To accelerate the process of evolution of such a society, the right to work should become a fundamental right according to the constitution.

10. Training in entrepreneurship should be given to the unemployed youth with vocational skills so that many of them can start trades of their own.

11. The infrastructural facilities in tribal areas need a lot of improvement. Transport and communication, electricity, proper use of water building facilities etc. deserve a lot of improvement.

1.8 SUGGESTIONS FOR FURTHER RESEARCH

1. A summary of high school facilities with special emphasis on feasibility of Vocationalisation of Education may be conducted.
2. A survey of manpower needs for each District in Meghalaya State may be conducted and projections may be made for the next twenty years for the traditional and the emerging non-traditional occupations.
3. A study of attitudes of students and teachers towards SUPW at high school level may be conducted to find out the present status of SUPW in Meghalaya.
4. Case studies of higher secondary schools which have successfully introduced Vocationalisation of Education in the country may be attempted.
5. A critical study of the status and the impact of Vocational Guidance services in the high school stage in Meghalaya may be attempted.

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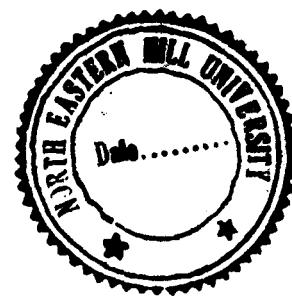
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*Give vocational training to the manually minded, and
the children's courts of the future will have less
to do.*

- Lawes

Dr. Mathew George
Reader
Department of Education
North-Eastern Hill University

CERTIFICATE

I certify that the thesis entitled "A Study of Vocational Education and Attitudes towards Vocationalisation of Education in East Khasi Hills District," submitted by Smti. Sherwin May Sungoh, for the Degree of Doctor of Philosophy of the North-Eastern Hill University, Shillong, embodies the record of original investigation carried out by her. She has been duly registered and the thesis presented is worthy of being considered for the award of the Ph.D. Degree.

This work has not been submitted for any Degree of any other University.

Dated Shillong,
28.12.1989.

Mathew George
(Dr. Mathew George)
Guide

ACKNOWLEDGEMENTS

It is a great pleasure to acknowledge my indebtedness to many persons who have been responsible for the inspiration, direction and execution for the present study. For invaluable assistance and support, I am deeply grateful to:

1. **Dr. Mathew George**, Reader, Department of Education, NEHU, who has been my guide for research/work at M.Phil and in continuation at Ph.D. level;
2. **Dr. K.S. Lyngdoh**, Dean, School of Education, **Dr. M.S. Padma**, Head, Department of Education, and other members of the teaching staff;
3. **Dr. S. Homchoudhury**, Dean, School of Languages, **Dr. Imdad Hussain**, Professor, History Department and **Dr. Jagat Paul**, Reader, Department of Philosophy, as members of the research team from sister Departments of NEHU, present for the Ph.D. pre-submission seminar;
4. *Heads of Departments and Staffs related to Vocational Education and Vocationalisation of Education, Employment Exchange Office, Principals, Teachers and Preuniversity students of all the colleges in East Khasi Hills;*
5. my parents, Pastor and Mrs. Nongtdu, my husband, Shri M. Nongrang, and the two children, Dexter and Adrian;
6. NEHU for granting fellowship;
7. Shri Bipul Syam Purkayastha and Miss Beena George for programming and processing the data in the Computer HCL Work Horse, Mathematics Department, NEHU, and;
8. Mr N.Paul Choudnury who willingly and patiently typed this thesis.

Many others especially the names of my colleagues in the teaching and non-teaching staff in Shillong could also be mentioned. I hope and trust that they will understand and appreciate their omission as nothing more than an investigator's quest for brevity.

Date, Shillong
28/12/89


SHERWIN MAY SUNGOH

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The prosperity of the people is proportionate to the number of hands and minds usefully employed.

- Johnson

CHAPTER - I

THEORETICAL BACKGROUND OF THE STUDY

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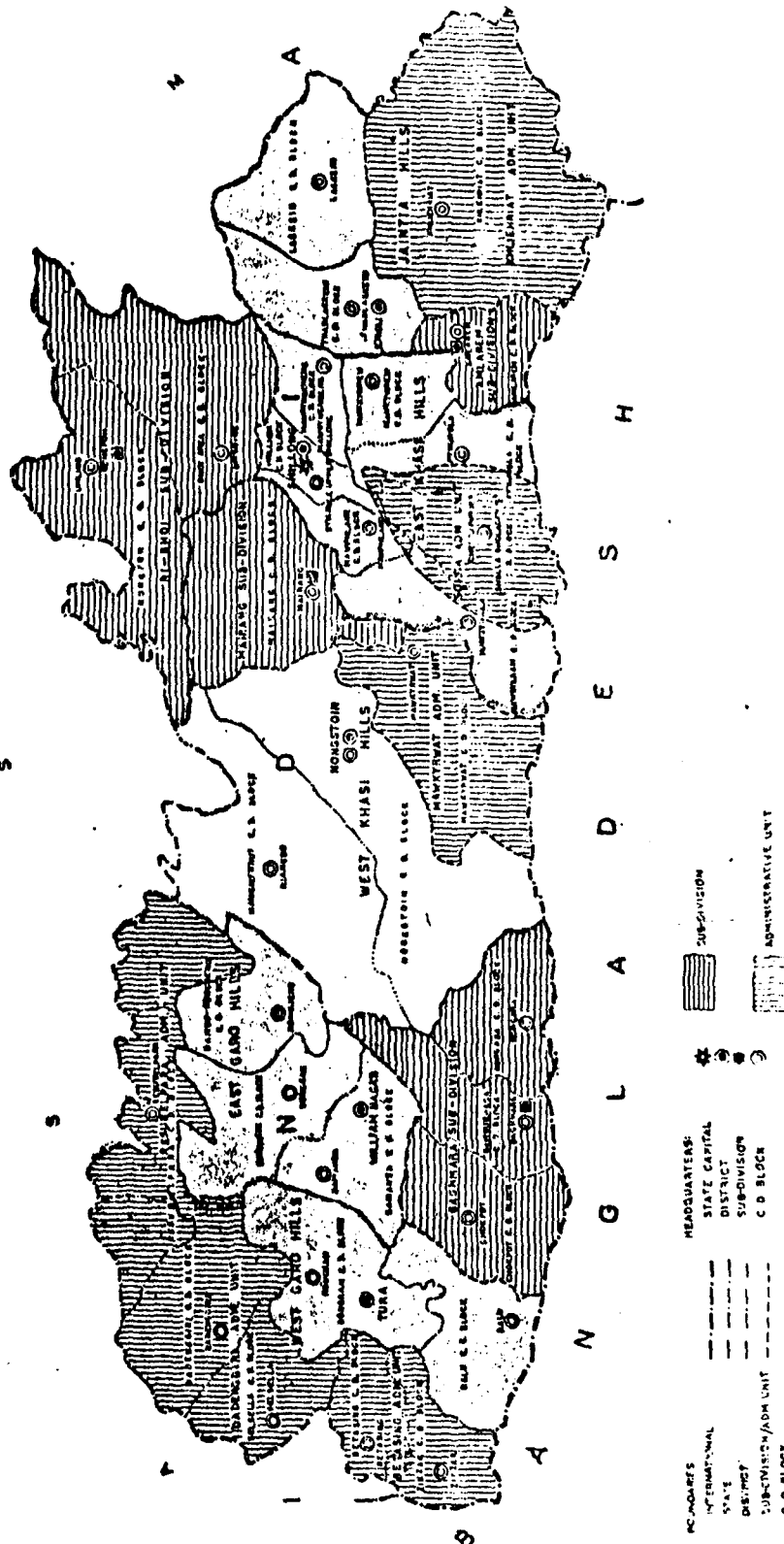
1.0 THE PRESENT STUDY

School Education is a preparation of better adult life. The right academic preparation is the means to achieve the goal of a successful, productive, rewarding and full life through the confluence of the right vocation. The socio-economic status, quality of cultural life, companions, place of work, social mobility, satisfaction, standard of living and contribution to social welfare are dependent on the right interlocking of purposeful learning in academic life with successful practice in Vocational life as two sides of the same coin.

India is a developing country. Hence it is confronted by a number of problems. One of the factors which can help in solving some of the problem of development is through Vocational Education and Vocationalisation of Education. Since Vocationalisation of Education has not yet been implemented in the State of Meghalaya, it was thought desirable to take up the study.

The present research report is divided into six chapters. Chapter One presents the theoretical background of the study. Chapter Two is devoted for a review of the related literature. Chapter Three discusses the method and procedure of the study. Chapter Four is set apart

MEGHALAYA ADMINISTRATIVE DIVISIONS 1981



Source: Survey of India map with the addition of the Survey of India data. The boundary of Jaintia Hills was not incorporated into the map. Survey of India (Compendium) 1981/82 has been used.

for the analysis of data and the interpretation of results. Chapter Five depicts the conclusions, implications, suggestions for improvement of the situation and suggestion for further research. And the final Chapter draws a summary of the research report.

The purpose of Chapter One is reflected in eleven sections. The first-five sections, viz - section 1.1, The Study and its Setting, section 1.2, Unemployment, section 1.3, Manpower Planning, section 1.4, Technical Education in Meghalaya, and section 1.5, Vocational Education in Meghalaya, deal with the background of the study. Section 1.6 and section 1.7, describe the meaning of Vocational Education and concept of Vocationalisation of Education respectively. Section 1.8, depicts the five Components of Vocationalisation of Education. Section 1.9, portrays Vocational Education during Five Year Plans, section 1.10, discusses the different aspects of Attitudes and finally, the last section 1.11, gives a conclusion of the chapter.

1.1 THE STUDY AND ITS SETTING

Meghalaya was created as an Autonomous State within the State of Assam on April 2, 1970. The fullfledged State of Meghalaya came into existence on January 21, 1972.

The State is a land-locked territory of lovely hills with abounding sylvan beauty. It is bounded on the North by Goalpara, Kamrup and Karbi Anglong districts of Assam State and on the East by the District of Cachar and North Cachar Hills also of the State of Assam. On the South and West is Bangladesh.

Carved out of two hill districts of Assam, viz., United Khasi and Jaintia Hills District and Garo Hills District in 1970, Meghalaya (meaning "the abode of clouds") is essentially a Hill state with a people in varying stages of development.

Meghalaya lies between 25°47'N to 26°10'N latitude and 89°45'E to 92°47'E longitude.

Area

The total area of the State is 22,429 square kilometers with a population of 13,35,819. The State is now divided into five administrative districts. They are: (1) Jaintia Hills District created on February 22, 1972; (2) East Garo Hills District created on October 22, 1976 and (4) East Khasi Hills District and (5) West Khasi Hills District created on October 28, 1976. They are predominantly inhabited by the Jaintias, the Garos and the Khasis. These tribal communities are the descendants

of very ancient people having distinctive cultural traits and ethnic origins.

Natural Features

Khasi Hills and Jaintia Hills Districts of Meghalaya form a plateau generally of rolling grassland interspersed by river valleys, which in the southern portion take the form of ravines. Altitude varies from 1,200 metres to 1,965 metres above sea level and the area is characterised by heavy rainfall, especially in the southern region. The average annual rainfall of the State is 10,000 millimetres to 12,700 millimetres. In the Capital City of Shillong rainfall averages 2,032 millimetres per annum.

Cherrapunjee, 53 Kilometres from Shillong is noted for its heavy rainfall. The annual average is 10,871 millimetres which varies greatly, 22,987 millimetres was recorded in 1861 with a maximum precipitation in July of 9296.40 millimetres. The heaviest rainfall in the world is recorded in the nearby village of Mawsynram with an annual average of 12,163 millimetres. The excessive rainfall is due to situation on an amphitheatre relief and on the windward side of the monsoon.

The districts of Khasi Hills and Jaintia Hills are famous for the orange groves and the pineapple plantations.

Garro Hills, like the rest of the state, is a plateau which rises to a height of 657 metres and drops steeply to the Brahmaputra valley on the north and to the plains of Bangladesh on the south and west. The area has a very high amount of rainfall and is covered by thick forests.

The highest peak in the state is the Shillong peak, 1,965 metres. Nokrek in the East Garo Hills District is the second highest peak, 1417 metres.

A number of rivers, none of them navigable, drain this mountainous State. Damring, Jira, Bugi, Dareng and Simsang flow through Garo Hills. Kynshi, Ummawpa, Umngot, Umiam Mawphlang, Umtrew and Umiam Khwan flow through the Khasi Hills, while Kupli flows through Jaintia Hills. All these abound in cataracts and waterfalls. The most picturesque waterfall, the one called Nohsngithiang at Mawsmai village has an appeal unparalleled in the whole of India. Here the water of several rivulets are precipitated over a sheer cliff of several hundred feet high.

Meghalaya is a country of surpassing scenic beauty. Waterfalls and mountain lakes, rising peaks and billowing hills, meadows, valleys and rushing rivers combine to make a rich panorama.

The climate of the State is temperate. The mercury seldom rises above 26 degree celsius.

Flora is exceptionally rich in the state in the variety and number of plants, orchids being especially prolific.

Shillong

Meghalaya's capital, Shillong is a lovely hill station. Situated at an elevation of 1,496 metres above mean sea level, the capital city has a bracing climate throughout the year. This city has been the seat of the Government since the consolidation of British administration in this part of India over a century ago.

Shillong experiences occasional earth tremors and was devastated by the great earthquake of June 12, 1897.

Shillong is the political and social hub of Meghalaya. It is a lovely hill station with a number of beautiful spots. The Wards Lake, the expansive Polo Ground, the green golf course, the Lady Hydari Park and the peak overlooking the city all conjure up the idyllic beauty that is Shillong. Sprawling at the spurs of surrounding hills, Shillong offers arrangements for tourists with good hotel accommodation, facilities for sports, fishing and hiking.

Shillong is connected by good arterial roads with the rest of the country through Assam. A good road connects

Shillong with Sylhet in Bangladesh. It is also connected with other important towns of the state like Jowai and Tura. An airport at Umroi about 20 kilometres from Shillong known as Shillong Airport connects Shillong by air with the rest of the country.

Shillong is also the headquarters of the North Eastern Council. Here there is the North Eastern Hill University and the official residence of the Governor of Assam and Meghalaya. A Bench of the Gauhati High Court has been set up in Shillong.

Population

According to the 1981 census, Meghalaya had a population of 13,35,819 of which 6,83,710 are males and 6,52,109 females. Urban population is 2,41,333 and the density per square kilometer is 60. Rural population is 10,94,486.

The following table shows the district-wise area and population of Meghalaya:-

<u>District</u>	<u>Headquarters</u>	<u>Area</u>	<u>Population</u>
East Khasi Hills	Shillong	5,196 Sq. Km.	5,11,414
West Khasi Hills	Nongstoin	5,247 Sq. Km.	2,62,576
East Garo Hills	Williamnagar	2,603 Sq. Km.	1,32,260
West Garo Hills	Tura	5,564 Sq. Km.	3,69,877
Jaintia Hills	Jowai	3,819 Sq. Km.	1,56,402

The population of East Khasi Hills District as per 1981 Census, as seen above, is 5,11,414. Where the

rural population was 3,30,614 and urban population 1,80,800. The sex ratio (females per 1000 males was 969).

Cultural Heritage

Meghalaya is the homeland of three of India's ancient hill tribes, the Jaintias, the Garos and the Khasis. Dance, music and sports reflect their way of life. Festive sounds of merry-making echo from hill to hill revealing the pulsating life of the tribal people. Mindful of their cultural heritage, these simple-folks are jovial and hospitable.

The Khasis and Jaintias are held to be remnant of the first Mongolian overflow into India. They established themselves in their present homeland in the remote past and owing, primarily to their geographical isolation, they succeeded in maintaining their independence until the consolidation of the British administration in this part of India.

The Khasi language, spoken by Khasis and Jaintias is believed to be one of the very few surviving dialects of the Mon-Khmer family of languages in India today.

A distinctive feature of the Khasi-Jaintia society is its customary law of inheritance by which inheritance to property and succession to tribal office both run

through the female line, passing from mother to the youngest daughter. Office and management of property is of course in the hands of the maternal uncle and not in the hands of the women themselves.

The Garo Hills is the homeland of nearly five lakhs of Garos. Legend has it that the Garos originally inhabited a province of Tibet named Torua. Leaving Tibet in the distant past under their Chiefs, Jappa-Jalimpa and Sukpa-Bongepa, the Garos wandered in the Brahmaputra Valley for centuries in search of a permanent home and survived the ordeals of wars and persecution in the hands of the kings ruling the valley. The Garos branched out into a number of sub-tribes, and the main body, under the legendary leader, Abong-Naga occupied Nokrek, the highest peak in Garo Hills.

The Garos are a part of the great Bodo race, a branch of the Tibeto-Burman family. They mainly practise Jhum cultivation. Like the Khasis and Jaintias they are a mtrilinear society. Life in the hills is hard, but these sturdy people are fond of dances, songs, sports and festivals.

Meghalayans are industrious people, generally good tempered, but they are occasionally prone to outburst of anger accompanied by violence. This is due to the

spirit of freedom which seems to be innate in them.

Administration

The State has a unicameral legislature. The Legislative Assembly consists of 60 members - 29 from Khasi Hills, 7 from Jaintia Hills and 24 from Garo Hills.

Meghalaya was originally comprised of two districts and three sub-divisions. In order to accelerate the pace of development and to bring the administration closer to the people, the State has been reorganised into five administrative districts and ten subdivisions. For an all-round development of the rural areas, the whole State is covered by 30 Community Development Blocks.

District Council

There are three District Councils in Meghalaya under the provision of the Sixth Schedule of the Constitution. They are the Khasi Hills District Council, the Jaintia Hills District Council and the Garo Hills District Council. These Councils look after local administration of primary education, forests other than reserved forests and minor development schemes. The Chief Executive Members with the help of other Executive Members, manage the affairs of the councils.

Economic Activities

Agriculture is the mainstay of the people of Meghalaya. Eightyfive per cent of the State population lives in rural areas and depend on agricultural produce for their livelihood.

Rice, Maize and millets are grown throughout Meghalaya. Wheat has been introduced recently and the result is quite encouraging. Citrus, pineapples and bananas are some of the important fruit crops. Sub-temperate and temperate fruits such as pears, peaches, plums, apples etc., are also grown in the central plateau region of the State.

Potato is one of the principal cash crops of the State. Jute and mesta, short staple cotton varieties and mustard are mostly grown in Garo Hills. Arecanut, ginger, turmeric, betel leaf, black pepper, pipul, tezpata etc., are some of the commercial crops of the State.

Jhumming or shifting cultivation practised in the predominantly agricultural state on a large scale, is one of the biggest problem to be tackled. The State Government has however, made a modest beginning with a scheme to help the farmers to settle on land suitable for steady cultivation.

Under the re-settlement scheme called 'Jhum Control

Scheme,' villagers hitherto depending on jhum cultivation are shifted to the developed lands and are supplied with seeds, fertilizers and irrigation facilities, etc., to start permanent cultivation in the developed lands.

The area under agriculture in the State is 2,23,756 hectares approximately. The State abounds in mineral and forest wealth which is yet to be fully exploited.

Transport and communication are Meghalaya's main bottle-neck. The State is not connected by railways. Roadways are coming up but many of the interior areas are still to be connected by roads.

The State is not so far industrially developed. However, new industrial units set up by or with the help of the Meghalaya Industrial Development Corporation are coming up fast. Some of them are:-

The Meghalaya Plywoods Ltd.

The Komorrah Limestone Mining Company Ltd.

The Associated Beverages (P) Ltd.

The Meghalaya Essential Oils and Chemicals Ltd.

The Meghalaya Phyto Chemicals Ltd.

The Meghalaya Towers and Trusses Ltd., and

The Umiam Calcenates Ltd.

The public-sector cement factory at Cherrapunjee known as the Mawmluh-Cherra Cements Ltd., has been expanded to a production capacity of 930 tonnes per day.

A number of small industrial establishments like saw mills, food processing units, bone mill, cotton ginning, bakeries, lime burning and lime products, rice mill, flour mill, watch assembly unit, etc., are also found in Meghalaya.

Food processing industries have vast scope in Meghalaya. Match Splint and veneer plant is coming up at Barapani Industrial Area. There is also a proposal to extract starch from Tapioca in Garo Hills. Projects like manufacture of calcium carbide, etc., are also likely to come up.

Both the Central and the State Governments offer various financial and other incentives to new units in the private sector.

The Central Government is offering 25 per cent capital investment subsidy and 75 per cent transport subsidy to units set up in Meghalaya. Transport subsidy is for transport of raw materials and finished products from prescribed railway station to the unit.

The State Government helps the units in procuring of raw material especially the scarce one. It also helps new

units to get financial assistance from various Banks.

An industrial area in Byrnihat about 80 Kilometres from Shillong on the Shillong-Gauhati Road, is being developed for providing facilities for setting up of industries. Two industries estates - one at Shillong and the other at Mendipathar in Garo Hills are being established.

The State Government have taken up implementation of an integrated programme for rehabilitation of the economy of the areas bordering Bangladesh, which were badly affected by the partition of the country in 1947.

Mineral Wealth

Meghalaya's mineral wealth is yet to be fully assessed. The estimated reserves of coal are about 1,200 million tonnes. Limestone reserves are of the order of 2,100 million tonnes, and clay deposits ten million tonnes. Sillimanite is found in Khasi Hills in the purest form and is believed to be the largest known deposit in the world.

Power

The state of Meghalaya has many swift flowing rivers from which cheap hydro-electric power can be generated.

There are at present four hydel projects with an installed capacity of 133.66 M.W. Another hydel project is under construction, the installed capacity of which will be 60 M.W. There is also a thermal project of 5.00 M.W. and a diesel project of 1.95 M.W. and a micro hydel project of 1.51 M.W.

Education

The North-Eastern Hill University at Shillong has started functioning since 1973 and Meghalayan students are in a position to obtain post-graduate education in Shillong itself. Besides, a pre-examination training centre for I.A.S. etc., examinations has also been started under the aegis of the North-Eastern Hill University. The Central Institute of English and Foreign Languages has also set up its branch in Shillong in 1974 and has been rendering valuable services to the youth of the State, especially the teaching staff of the different Educational Institutions in the State.

The State has at present 14 general college, one Law College one post-graduate training college, 208 High/Higher Secondary Schools, 488 Middle/Senior Basic Schools, one polytechnic, two Industrial Training Institutes and 4,010 Primary Schools and Junior Basic Schools.

The percentage of literacy in Meghalaya is 34.08

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(census, 1981) which compares favourably with the All India average. The percentage of school dropouts was reported to be above 68 in the 1980's.

Health

There are at present nine Government hospitals, twenty-five primary health centres and fifty-seven dispensaries in the State. The number of beds in the Government hospitals is 1,849.

Forest

Meghalaya is rich in forests. The total forest area is 8,51,42 hectares. The principal timber species are sal, nahor, champa, chap, gonari, bhola and pine. Birch, schima, oak, makria sal, beench and magnolia are also found. The principal forest products are timber, bamboo, reeds, cane, ipecac, lac, medicinal herbs and plants, cinnamon and lemon grass.

Azaleas and rhododendrons grow wild in the forests of Khasi Hills and Jaintia Hills and many kinds of beautiful orchids are found in the woods.

Wild-life

Meghalaya is rich in wild-life, many of which are not to be foundany where else in the world. There are

elephants, tigers, leopards, golden cats, leopard cats and jungle cats, deer of various kinds, bisons, slow loris, monkeys of different types including capped langurs and golden langurs, binturang and hoolock the only species of true ape is found in Meghalaya. There are also many rare and interesting birds including the hornbills, partridges, pheasants, teals, snipes, geese and ducks and drongos. All of these are protected by law.

In conclusion Meghalaya can be summarized as follows:

(A) The land (1981 Census)

1. Area - 22,429 sq.km.
2. Districts - East Khasi Hills, West Khasi Hills, Jaintia Hills, East Garo Hills, West Garo Hills.
3. Number of vilalges - 5,048
4. Number of towns - 12
5. Forest area - 8,51,42 hectares
6. Agricultural land - total cropped area - 2,23,756 hectares approximately.

(B) The people (1981 census)

1. Total population - 13,35,819
2. Rural Population - 10,94,486
3. Density - 60 per square kilometre.
4. Literacy - 34.08 per cent

5. Racial origin of the people - Austric, Tibeto,
Burman and Aryan.

(C) Major Mineral Resources

Coal, Limestone, Sillimanite, dolomite, Fireclay,
Felspar, Quartz and Glass Sand.

(D) Principal Forest Products

Timber, Bamboo, reeds, cane, ipecae, lac, medicinal
herbs and plants, cinnamon, lemon grass and orchids.

(E) Principal Agricultural Products

Rice, maize, potato, cotton, orange, ginger, tezpata,
arecanut, jute, mesta, banana and pineapple.

(F) Wild Life

Animals - Elephant, tiger, leopard, bear, panther,
bison, etc.

Birds - Florican, hornbill, maina, etc.

1.2 UNEMPLOYMENT

India is an underdeveloped country. The nature of unemployment, therefore, sharply differs from the one that prevails in industrially advanced countries. The more developed countries of the world usually suffer from a functional and cyclical unemployment problem. It is meant for a temporary period. But in the case of an underdeveloped country it is a permanent feature.

Unemployment is now a common feature in all market economies irrespective of their level of development. Many in the State of Meghalaya, are unemployed, many without work, still many, though educated, find no or little work to use their skill. Thus it is not confined to unskilled workers but skilled workers sometimes having training in sophisticated technologies also fail to get jobs for long periods. Quite often their services are not required even at the prevailing wage rates. Thus this involves a colossal waste of the nation's human resources.

In all the situations, unemployment refers to a stage at which all workers who are capable of working and willing to work do not get employment. It amounts to a waste of the country's labour force. Frictional unemployment is a temporary phenomenon which occurs due to technical reason like break-down of machineries, storage of raw materials etc. Cyclical unemployment, on the other hand, is a serious involuntary unemployment problem in the advanced countries which occurs during a recession or depression, caused by the lack of effective demand in terms of consumption and investment. This problem can be solved by appropriate monetary and fiscal policies. But in a country like India, there is no such problem of lack of demand which can be easily removed through

the monetary and the fiscal policies.

Types of Unemployment

Broadly speaking, there are three types of unemployment in India:

- i) Agricultural Unemployment
- ii) Educated Unemployment
- iii) Industrial Unemployment

(i) **Agricultural Unemployment:** A major proportion of labour force in India drifts to agriculture, which being backward, simply shares the existing work among larger numbers. An overwhelming part of them find some work, for some idleness for the rest of the year. This irregular unemployment constitutes the substance of the unemployment situation. This situation has operated over very many years in the past. For example, a historically unique fact about the Indian situation is that over the last six decennial censuses beginning with 1921, the share of agriculture in the work force has not diminished. It was 73 per cent in 1921, 74 per cent in 1971, and 74 per cent in 1981. And this continues even today unreduced. And this is despite an impressive development of the large scale manufacturing and infrastructure sectors. There is more of underemployment of those who are employed

in agriculture but are in fact not needed. The marginal productivity of such marginal workers is Zero. It is described as disguised unemployment.

(ii) Educated Unemployment: As early as 1931, the Royal Commission on Labour emphasized that the problem of educated unemployment is of an All India character. With a rapid expansion of educational facilities - both at the school and the university stage - the out-turn of educated persons has increased very fast. A greater part of the increase among the educated people belongs to those receiving liberal education. There has been a comparatively lesser growth of technical institutions, in view of the large amount of investment required to start them. Consequently, the number of persons seeking employment and clerical posts far exceeded those seeking employment in technical posts.

(iii) Industrial Unemployment: On account of a rapid increase in population, the size of the economically active population is bound to increase. With the spread of urbanisation, people from the rural areas have been shifting to the urban areas. Moreover, during the off season quite a good number of workers in agriculture came to the industrial centre to seek employment. The

rate at which the expansion of industries has been taking place, is not keeping pace with the growth of urban labour force. This has given rise to unemployment among industrial workers in India.

Estimates of Unemployment in Meghalaya

It is an undisputed and an accepted truth that quite a large number of workers are forced to remain jobless both in rural and urban areas. Statistics relating to magnitude of unemployment and of manpower resources is not much reliable because of the scanty information and absence of a clearcut demarcation of the areas of outright employment and underemployment.

While analysing the data of employment exchanges as an indicator of unemployment it was found that in Meghalaya, registration per year with employment exchange has risen from 5.2 thousand in 1974 to 10.2 thousand in 1976 but came down to 5.8 thousand in 1980 and increased further to 6.2 thousand in 1981. The placement effected in a year is not very helpful in reducing the number of unemployed on live registers which reached 10.4 thousand in 1981 against 7 thousand in 1974.

Thus, the problem of unemployment that exist in the state and India as a whole is the cumulative result

of a number of factors, namely lopsided and inadequate industrial development, the rapid growth of population after 1921, the decay of small-scale and cottage industries leading to greater pressure of population on land, the low level of investment resulting in lack of expansion of the secondary and tertiary sector, etc. In other words, the failure of the Indian economy to expand at a rate commensurate with the needs to absorb the additions to the labour force had a cumulative effect of increasing the back log of unemployment and underemployment. Unemployment can be removed by raising the level of investment and accelerating the process of industrialisation. Planning should be employment-oriented if it is to have any meaning for the masses.

1.3 MANPOWER PLANNING

The importance of manpower as an economic resource for overall development of country or a region needs hardly to be emphasised. But unless this resource is properly planned and effectively utilised it will likely to become a liability and not an asset. Manpower Planning, therefore forms an essential element of any policy of national development.

Mere availability of physical resources will not help in the development of a country or a region. Alongwith

the availability of other physical resources, the basic economic resource manpower must be available. Manpower resources alone will convert physical resources for the benefit of the society as a whole. The proper development of manpower through creative and effective utilisation of skills of people, should therefore, form a part of the development strategy. The effective utilisation of manpower resource will lead to faster growth of the economy of a country or a region.

Manpower planning has two aspects, namely, the aspect of surplus and the aspect of shortage. Planning for manpower will deal with the situation of surplus. In other words, the first aspect deals with planning of men for jobs and second aspect deals with planning of jobs for men. Manpower planning should not only take into account the situation of shortage but also a situation of surplus manpower. Historically speaking, however, manpower planning was started to deal with a situation of shortage and not of surplus. Manpower Planning is to take into account the existing situation as well as keep in view the shortage and surplus that are likely to arise in future. In other words, manpower planning should be perspective as well as prospective.

"Manpower Planning", as defined by Ministry of Home

Affairs (1960) states, "the process of developing and determining objectives, policies and progress that will develop, utilise and distribute manpower so as to achieve economic and other goals. It includes developing the necessary organisations. Manpower planning as an integrated plan for economic goals to be achieved. It must be part of the general plan of economic development of a country, a region or a state since the target to be achieved and the level of technology to be adopted are determined by the quantity and quality of the available manpower."

The essential element of manpower planning are the manpower assessment, forecasting of manpower requirements and manpower budgeting. A realistic assessment of the existing manpower and assessment of perspective requirements are necessary to make the manpower plan realistic. Manpower is one of the important factor for growth and development of the country.

1.4 TECHNICAL EDUCATION IN MEGHALAYA

At present technical education is imparted in four institutions in the state. They are as follows:

- i) Shillong Polytechnic
- ii) The Industrial Training Institute (ITI) in Shillong and Tura.
- iii) The Don Bosco Technical Institute in Shillong.

The Shillong Polytechnic has an annual intake of 120 students. It offers a three-year course leading to a diploma in Civil, Mechanical and Electrical Engineering. The purpose of this course is to prepare middle level technicians of government and other agencies. The entrance qualification is H.S.L.C. On an average about 50 per cent of the students obtain the Diploma every year but even those who fail to get the Diploma qualify for employment at lower levels. The two Industrial Training Institutes in Shillong and Tura are under the Department of Labour and reservation of seat is according to the Government Training Manual. The Don Bosco Technical Institute has an intake capacity of 230-250 students.

The State has at present no facilities for higher level technical or vocational Education. However, there are provisions for reservation of seats for students belonging to the state in Institutions in other parts of the country. It is a happy augury that the foundation Stone for establishment of Indira Gandhi National Medical College in Shillong has already been laid. And the steps are in full swing to organize courses in the near future.

There is also provision for reservation of seats for M.Sc. (Agril), for Ph.D. in Veterinary, Science and Agriculture and courses in Sericulture and Weaving. There

are also seats in craftsman training in institutions in other States. Reservation of seats is also provided for Medical and Engineering course in different states of the country.

One serious difficulty reported is that there is no overall coordination at the State level in the selection and deputation procedures, resulting in delay and forfeiture of seats. This must be remedied through suitable arrangements to ensure coordination of action at the State level.

1.5 VOCATIONAL EDUCATION IN MEGHALAYA

Vocational Education has been particularly mentioned for consideration because of the serious lacuna and sad lack of this essential field of work and education in Meghalaya. Vocational Education has an important role to play in bringing about progress, development and transformation in the State. Greater provisions for Vocational Education is needed not only for the exploitation of the natural resources but also making use of the opportunities which emerge out of the developmental programmes in the State.

One of the significant trends in the education system in the country is to make it more relevant to

vocational requirements. One of the proposals is to design a vocational stream at the Higher Secondary Stage to channel off half of the students.

Apart from the provision of a vocational stream at the Higher Secondary Stage, it is necessary that facilities for Vocational Education are made available at other levels also. These programmes need not necessarily prepare people for paid employment. They can be self-employment oriented, and can also be aiming at development of vocational skills relevant to job situation.

It may be advantageous to establish vocational training institutes to make available Vocational Education at Pre and Post Secondary levels. In developing the context and organisational structure of different programme in these institutions, it will be desirable to conduct a survey of the existing vocational position and future prospects.

Steps are also necessary to give vocational information to school and college students to help them make a proper vocational choice. The State which offers vocational courses needs a system of Vocational guidance, which should gradually extend its functions to all the High schools and Colleges in the State. To start with, Information Boards, may be set up in these institutions

where regular bulletins containing vocational information can be displayed. In Shillong, a student information bureau is set up to make available information about job opportunities, careers and educational programmes, by the SCERT for the school level, and by the Directorate of Employment and Craftsmen training, Department of Labour for the College level.

It has been recommended that Vocational Education and the problem of a vocational stream should be under the Directorate of Education.

1.6 MEANING OF VOCATIONAL EDUCATION

Smith (1942) states that "Vocational Education means getting people ready and keeping them ready for the types of serving we need. The term has no limitations as to the kind or level of such needed services. Vocational Education is good education, good sociology, good economics, and good democracy." The American Educator's Encyclopaedia (1982) defines Vocational Education as 'a part of the school curriculum designed to make the student employable in at least one occupation....Vocational Education includes the fields of agriculture education, business and office education, distributive education, health occupations education, wage earning, home economics

education, trade and industrial education and technical education." The Encyclopaedia American (1985) defines Vocational Education as "the preparation of young people and adults for skilled trades and semi-professional careers. It is most frequently offered at the high schools or junior college level and does not normally include training for professions such as law and medicine." According to the New Encyclopaedia Britannica (1985) it states that Vocational Education is "instruction intended to equip person for industrial or commercial occupations. It may be obtained either formally in trade schools, technical secondary schools or in the job training programme or more informally, by picking up the necessary skills or the job without actual supervision."

An analysis of these definitions of Vocational Education reveals the totality of experiences through which one learns about and prepares to engage in work as part of him or her way of living (which includes livelihood). It refers to all formal as well as non-formal instruction for students at the secondary and senior secondary level which prepares them for initial entrance and advancement within an occupation or group of related occupations.

1.7 CONCEPT OF VOCATIONALISATION OF EDUCATION

Vocationalisation of Education at the plus two stage is the cornerstone of the new system of Education. Vocationalisation of Education under the new pattern is proposed not only from economic point of view but also from moral and social points of view.

Vocationalisation means, training in a particular vocation at the school stage, secondary and higher secondary and this vocational training may be of the terminal stage. In the second sense, Vocationalisation means training in some vocation at the higher secondary stage along with general education. This is the most acceptable meaning of vocationalisation. The Indian Education Commission (1966) in this connection says, "We visualise the future trend of school education to be towards a fruitful mingling of general and Vocational Education - a general education containing some elements of pre-vocational and technical education and vocational education in turn, having an element of general education."

India at present is moving towards industrialisation. As a result the villagers are shifting to towns and education is getting an urban orientation. Vocationalisation prepares ground for efficient and effective workers for the fast developing country and on the other hand develops

the dignity of labour in the students.

In the Vocationalisation particularly at the plus two stage, the important aim is to change the educational system from one which was oriented to knowledge or knowledge's sake and clerkdom in a colonial administration to a process which specifically prepares children for wide range of avenues in work life, The goal is not that of meeting specific manpower planning needs, it is rather to orient pupils to a range of work areas in technical, commercial, agricultural, pre-primary teaching, home management, paramedical and other areas and to determine the range in response to local employment needs.

The key concept of the higher secondary stage has become a diversification of pupils' choices in situation of serious unemployment and under-employment of highly educated Indians. There is a need to discourage and divert a proportion of pupils from continuing through higher education, since their talents could be better used in the occupation which require technical skills. The Dictionary of Education defines Vocational Education as all activities in or out of school, designed to contribute to occupational proficiency. It includes apprenticeship, guidance in schools, training programmes, on the job training, retraining personnel. Modern definitions include career orientation,

specific skill training and eventual job placement.

Shoemaker states that "Vocational Education helps to give definite purpose and meaning to education by relating it to occupational goals. It provides the technical knowledge and work skills necessary for employment." Vocational Education is challenged in terms of developing an appropriate attitude and respect for work.

Schools were regarded as places of academic learning for knowledge and not for training character. This concept is now changed as a result of the introduction of the plus two with Vocationalisation of Education. Presenting students with a curriculum which includes technical, craft and physical skills is intended to broaden their ability and interest in such productive processes. The aim is to develop proper attitude towards work, to inculcate the dignity of labour, eradicate status and class distinctions and to stress the principles of productivity. The introduction of Vocationalisation of Education at the plus two stage aims to achieve all these objectives.

Important of Vocationalisation of Education

The importance of Vocationalisation of Education may be assessed from the following points:-

- (i) The feeling of fullness in life - Only Vocational or general Education makes the development of the individual one-sided. But Vocationalised Education may bring fullness in his life. General education makes an individual unemployed and dependent on others for economic assistance. Vocationalised Education alone may make a child a skillful workers in some areas, but not a fully developed individual.
- (ii) Hope for getting employment - Vocationalised Education gives one a capacity to earn his living. Today the problem of unemployment of our youths has not yet been solved because education has not been vocationalised.
- (iii) Hope for economic development of the society and nation - There are enough natural resources. But because of lack of Vocational Education exploitation of these natural resources have not been done fully. Consequently, our nation is behind many other countries of production. Vocationalised Education creates the traits of productiveness in the individual. With this trait he may learn how to exploit the natural resources intelligently. This will ultimately add to the economic prosperity of the nation,
- (iv) Hope for creating a spirit of self-dependence - Vocationalised Education creates a spirit of self-dependence in the individual, because through this education he begins to earn something during his school or college career. Thus ultimately he becomes a useful member of the society.
- (v) Hope for satisfaction of many psychological tendencies - Through Vocationalised Education, the individual

may satisfy his instincts of construction and self-display. Many of his latent interests, too, may get full play. He acquires some abilities. If he has talent, it may also be further developed. Needless to say that in Vocationalised Education, the student is not a passive listener. In fact, he becomes an active partner in the very process of his education. He learns by doing things. Various types of vocations should be incorporated in a vocationalised curriculum in order to cater to the varying needs, interests and aptitudes of students.

- (vi) Development of feeling of respect for manual works - In the Vocationalised Education one has to do some manual work for learning some vocational skill. This feature develops in him a feeling of love for manual work. This is not possible when the education is purely general and academic.

Aims of Vocationalisation

In the wake of the acceptance of the recommendations of the Kothari Commission, Programmes for the vocationalisation of higher secondary education in the 10+2 pattern of school education were initiated in the year 1976 by some states. Some most important aims of the programme were:

- i) To reduce the excessive and wasteful pressure on university education by diverting a sizeable numbers of students at the +2 stage to vocational courses.

- ii) To increase the employability of youth and to develop their capacity for self-employment.
- ii) To correct the mismatch between supply and demand of labour by training youth for middle level jobs for which there is high demand but little supply.
- iii) To ensure a steady flow of skilled workers in existing and emerging areas by developing necessary occupational competence.
- v) To link education with productivity thereby ensuring increased production of goods and services for raising the standard of living of the people.
- vi) To promote the economic development of the country by supplying well training workers to manage diverse jobs in diverse fields.
- vii) To accelerate rural development by training manpower for those vocations which have the potential for better utilisation of agricultural resources.
- viii) To ensure optimum development of human resources by training youth for work in accordance with their aptitudes and interests.

1.8 COMPONENTS OF VOCATIONALISATION OF EDUCATION

Vocationalisation of Education has been considered a major instrument for the transformation of the educational system in India. The important components may be divided into five categories such as,

- i) Work Experience
- ii) Socially Useful Productive Work
- iii) Vocational Guidance
- iv) Vocational Education
- v) Vocational Environment

(i) Work Experience

The Education Commission, 1964-66 has defined work experience "as participation in productive work in school. in the home, in a workshop, on a farm, in a factory or in any other productive situation." It recommends that "work experience should be introduced as an integral part of all education - general or vocational." Work Experience has been envisaged by the commission as an instrument of relating education to life and productive.

The system of education in our country has, in spite of various attempts made in the past, remained largely bookish and literary. All educationists are agreed on the need of introducing work experience at all stages in schools. As the Education Commission has pointed out:

- i) Work experience can be an effective educational tool.
- ii) Work experience can inculcate among pupils the habit of hard and responsible work.
- iii) Work experience can lead to better social cohesion.

- iv) Work experience can increase national productivity.
- v) Also, with growing unemployment among the educated youth of the country, it has become imperative to divert, at appropriate stage, a large number of pupils to courses of a vocational character.

The National Policy on Education 1986 pointed out that "work experience, viewed 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 is considered as an essential component at all stages of education, to be provided through well-structured and graded programmes. It would comprise activities, accord with the interests, abilities and needs of students, the level of skills and knowledge to be upgraded with the stages of education. This experience would be helpful on his entry into the work force. Pre-Vocational programmes provided at the lower secondary stage will also facilitate the choice of the vocational courses at the higher secondary stage."

Thus, the first essential attribute of work experience should be its predominantly manual character which should help inculcate among the students a sense of dignity of labour and develop their stamina for hard work. Manual work should also be purposive i.e. educative in that it should help develop knowledge, understanding work

skills, attitudes and personal - social qualities which are necessary for the solution of problems which the students meet in their day-to-day life. Further, Work experience should be meaningful i.e. it should - help in the satisfaction of the students' basic life needs such as food, clothing, shelter, health, hygiene and recreation through production of goods or rendering of services. Social or community service for the welfare/development of community or society at large should also form an essential component of Work Experience.

(ii) Socially Useful Productive Work

Socially Useful Productive Work has been described by the Ishwarbhai Patel Committee (1977) as purposive, meaningful, manual work resulting into either goods or services which are useful to the community. Socially Useful Productive Work should as far as possible, be predominantly manual. The range of Socially Useful Productive Work is very wide. Therefore, it may not be difficult to select items which select opportunities of enough physical exertion and imbibing the gospel of dirty hand.

It is essential that the Socially Useful Productive Work should either result into some material product or involve the children in some form of service. The latter may be remunerative or performed as social service.

Primarily, the benefits of this programme should be enjoyed by the school and local community directly. However, production of marketable goods and rendering of remunerative service are not ruled out. But this should not be encouraged at the cost of educational outcomes.

The Ishwarbhai Patel Committee has strongly recommended that Socially Useful Productive Work must find a central place in the school curriculum. The nature of this curriculum area is such that it draws its knowledge contents from different subjects of the school curriculum. It has further recommended that Socially Useful Productive Work is to be developed in the light of the Gandhian philosophy of basic Education which was work-centered. The Adiseshiah committee (1978) has also recommended allocation of 15 per cent of the working time to this programme in general education course for the higher secondary education.

The contents of Socially Useful Productive Work should be need-based and depending upon the problems of the child, the school and the community. Therefore, it will be very flexible in nature and no fixed programme can be prescribed in all the schools at a time. Even the details of the programme may vary from year to year

in the same school according to the changing needs.

The total programme of Socially Useful Productive Work will have two broad components, viz. - a core programme comprising simple activities belong to the need areas - food, shelter, clothing, health and recreation, community and social services which may be common to all the schools. These activities will not require much investment. The other component will be an elective component concerned with production of goods and services related to the needs and facilities available.

From the point of view of the learning and skill development process, experience in every productive work or service has to be provided in three phases, viz. (i) exploration of the World of work with the help of observation, discussion and very simple manipulation, (ii) experimentation with materials, tools and techniques, (iii) work practice in the form of work projects or crafts trades and services. This aspect should be reflected in the plan of the components.

(iii) Vocational Guidance

The General Conference of International Labour Organisation in its Vocational guidance recommendations described "Vocational Guidance" as "assistance given

to an individual in solving problems related to occupational choice and progress with due regard for the individuals characteristics and their relation to occupational opportunity."

In the definition adopted by the National Vocational Guidance Association, U.S.A., in 1937, "Vocational Guidance is the process of assisting the individual to choose an occupation, prepare for it, enter upon and progress in it."

UNESCO in its recommendation of 1974 on Technical and Vocational Education defined it as a "Comprehensive term embracing those aspects of educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors relating to economic and social life. Such an education would be an integral part of general education and a means of preparing for an occupational field and an aspect of continuing education. Technical and Vocational Education should further contribute to the achievement of society's goals of greater democratisation and social, cultural and economic development, while at the same time developing the potentials of the individuals for active participation

in the establishment and implementation of these goals. It should lead to the understanding of the scientific and technological aspects of the contemporary civilization in such a way that man comprehend their environment and are capable of action upon it while taking a critical view of the social, political and environmental implications of scientific and technological change. Given the necessity for new relationship between education, working life and community as a whole, technical and vocational education should exist as a part of a system of lifelong education adapted to the needs of each particular country."

The aim of Vocational guidance is to serve the individual and Society. For the individual, the main objectives are to prevent the unfortunate consequences arising from maladjustment to an occupation, and to contribute to his total well-being and happiness through job adjustment. Vocational maladjustment may lead to undesirable consequences of various kinds, ranging from mild job dissatisfaction, to serious effects on mental and physical health. From a more positive point of view, vocational guidance is a means of promoting the general well-being of an individual.

Vocational guidance aims at efficient use of manpower and greater economy in the execution of work in industry,

business and government offices. Furthermore, when government make funds available for the provision of vocational guidance services in schools and colleges and employment exchanges, they do so because they view such services as a part of the labour force and thus as one means of coping (indirectly and on a long-range basis) with unemployment and underemployment.

Vocational Guidance at the College Stage

The main function of vocational guidance at the college stage is to make students increasingly aware of the expanding field of work and the unlimited opportunities that are open before them to earn their living and contribute to the welfare of the society by engaging themselves in many types of creative work based on private enterprise. Too much dependence on service jobs should be discouraged.

Medhi (1968) gave a list of some of the specific functions of college guidance programme which are listed as under:

- i) Helping students to relate their studies to the vocations that are open to them at the end of their college career.
- ii) Helping them to make a comprehensive study of the careers which they would like to pursue.

- iii) Helping them to acquaint themselves with the different avenues of work. This supplements the information given to them in the school.
- iv) Helping them to acquaint themselves with avenues for higher studies.
- v) Helping them to know about the various programmes of financial assistance - scholarships, fellowships for improving their prospects.

(iv) Vocational Education

Mahatma Gandhi states, "For the all-round development of boys and girls, all training should, so far as possible be given through a profit yielding vocation. In other words vocation should serve a double purpose - to enable the pupil to pay for his labour and at the same time to develop the whole man or woman in him or her, through the vocation learnt at school." Gandhiji insisted that handicrafts are to be taught not merely for productive work but for developing the intellect of the pupils. He observed, "our boys do not know what to do on leaving schools. True education is that which draws out and stimulates the spiritual, intellectual and physical faculties of the children. This education ought to be for them a kind of insurance against unemployment."

In the words of Karl Marx, as quoted by Aggarwal and et al (1987) "The education of the future will in

the case of every child at a certain age, combine productive labour with education not merely as one of the methods of raising social production but as the only method of producing fully developed human beings.

Vocational Education should aim at helping individuals enter and find a rewarding place in the world of work. It enables individuals to advance economically and socially. It enhances the sense of adequacy of individuals through release and exercise of the creative impulse within them. It checks imbalances in the world of work. It aims at the stability and growth of the local, state and national economies that sustain it, and it aims at increasing national wealth and national progress.

Some of the particular features of Vocational Education can be summarised as: (i) Vocational Education is a programme for the purpose of preparing students for remunerative employment. (ii) Vocational Education emphasises the development of trade skills and occupational competence. (iii) Vocational Education provides for the selection of students with reference to their attitude for work. (iv) Vocational Education programmes provide working conditions and equipment basically parallel to industry. (v) Vocational Education programme are carried on for three or more hours per day in trade practices

and related subjects. (vi) Work assignments are based upon practices in the trade. (vii) Standards of workmanship is judged in the light of demands of trade. (viii) Content courses and duration of courses are arranged through advisory committees. (ix) Teachers are also selected from trades and given professional courses or programmes. (x) Vocational courses are usually offered in classes 11 and 12 and also out of school youth. (xi) Vocational Classes may be held in school or industrial establishments. (xii) Vocational Education is concerned with livelihood. (xiii) Vocational Education stresses the acquisition of skills but their acquisition is not all. (xiv) Vocational Education is important to all individuals and extends from the cradle to the grave.

Hence, "Vocational Education" as stated by Prof. Arthur B. Mays in his 'Principles and Practices of Vocational Education', "In its broader sense, it could mean education preparatory to the entering of all occupations, both professional and non-professionals, and thus encompasses the entire educational process."

(v) Vocational Environment

Donald Super (1957) advanced a conceptual framework defining the vocational environment which influences

the vocational development and vocational maturity of the adolescents as, "Vocational development is conceived as one aspect of individual development. Like social development, emotional development, and intellectual development, it has both distinctive characteristics which make focussing on it worthwhile and common characteristics which reveal it as one way in which general development of the individual manifests itself.....Like other aspects of development, vocational development may be conceived of as beginning early in life, and as proceeding along a curve until late in life."

The component of general environment are: (i) The culture in which the individual lives, e.g., The Indian Culture; (ii) The sub-culture in which the individual lives, e.g. Social-economic class, racial background and geographical region; and (iii) The immediate environment of the individual, which includes his family, school, community and church.

Crites (1969) states that immediate environment of the individual has the most direct and significant impact upon his vocational choice of all the stimulus variables. As the basic social and psychological unit in the transmission of the culture and the development of personality, the family conditions in almost all the

responses the individual makes early in life and continues to exert control over his behaviour into adolescence and sometimes adulthood. Similarly the school acts as a socialization agent which rewards and punishes the individual for his actions and thereby teaches him to respond in certain ways and not in others and to develop certain attitudes and values about such vocationally relevant matters as achievement and satisfaction. Each of these institutions, in its own way, as well as collectively, presumably influences the individual in his selection of an occupation.

Dole (1964) has identified a number of educational choice such as social class, father's occupation, parental education, family income, national, ethnic and religious background, and place of residence are associated both with Vocational and educational choice. Sex is also an important factor. So, too, are such psychological determinants as talents, school achievement, confidence and expressed vocational objectives.

Roe (1966) also indicate that Equality of educational and occupational opportunity is another factor in Vocational Planning.

Ventre (1966) has reviewed the findings of School Environment Research Projects which were conducted at

the University of Michigan, USA. These studies, pioneering as they are, link environment with human behaviour. The strategy of environment research project is that environmental variables interact with each other and induce certain variations in observed behaviour and these immediate behaviour variables in turn, influence performance measured with some specificity.

It is rather difficult to define vocational environment specifically. Equally difficult is to find its dictionary meaning. The total environment is too complex to measure. Total environment may be considered to be composed of specific environment that are likely to be related to the development of different human characteristics. These characteristics can be social, emotional, intellectual as well as vocational.

At least one authority in the field of guidance has tried to define the scope of vocational environment. Holland (1966) conceptualises that there are six categories of people with definite interest orientations as realistic, intellectual, social, conventional, enterprising and artistic.....There are six (corresponding) kinds of environment: realistic, intellectual, social, conventional, enterprising and artistic....People search for environments (at the time of making vocational decision) that will

permit them to exercise their skills and abilities, to express their attitudes and values, to take an agreeable problems and roles and to avoid disagreeable ones. Adjustive orientations (vocational choice) in fact, correspond to the six occupational environments which are designated as motoric, intellectual, supportive, conforming, persuasive, and aesthetic.

1.9 VOCATIONALISATION OF EDUCATION DURING FIVE-YEAR PLANS

The following are the various recommendation on vocationationalisation of education from five year Plan No.1 to 7.

1. Vocationalisation Education in the First Five Year Plan 1951-56

A. Secondary Education

- i. Secondary Education must be closely related to the psychological needs of the adolescents for whom it is being designed.
- ii. It should be vitally related to the existing socio-economic situation, to directive principles of State policy laid down in the constitution and the approved schemes for social and economic reconstruction. In order to equip the youth adequately for the needs for the existing socio-economic situation, it is necessary to give secondary education a vocation bias.

iii. Secondary Education would grow from the education that is being given at the primary stage i.e., it should be closely integrated with the basic education and its essential principles.

B. Professional Education

Organisation of facilities for professional education cannot be strictly related to the existing opportunities for employment but should take into account the developments planned in the various other sphere of national activity which require technical personnel. It is also necessary to turn out young men with initiative and grit in excess of the numbers indicated by the normal employment position in order that new ideas may be developed and small scale ventures might receive an impetus.

The greatest need for expansion of training facilities is at the level of artisans and craftsmen. Institutions run by the Ministry of Labour, trade, schools, industrial schools, production-cum training centres should be opened on an extensive scale, so that the skills of the large numbers of people, engaged in production or likely to be so engaged, are developed.

A sum of Rs.21.45.4 lakhs (9.90.4 for states and 11.55.0) per Centre was allotted for technical and Vocational Education which was 14.2 per cent of the total allocation of the First Plan.

2. Vocationalisation of Education in the Second Five Year Plan 1956-1961

The problems of reorganisation of the system of education may be viewed as comprising a series of practical objectives, such as expansion in the numbers for whom educational facilities are available, provision of larger opportunities for girls and for women generally diversification of education by education stage, replacement of the traditional primary education by education along basic lines, development of social education, adequate provision for technical and vocational education and improvement of education in the universities. Behind these tasks lie more fundamental aims. With so much lost ground to recover, to advance rapidly the nation needs unity, cooperation in all fields and a high spirit of endeavour.

3. Vocationalisation Education in the Third Five Year Plan 1961-66

The secondary Education Commission recommended the setting up of multipurpose schools, which would offer a number of practical courses along with the academic stream, so as to present the pupil with a variety of courses, out of which he could make his choice according to his special interests. During the first two plans 2115 multipurpose schools were established. These offer

more practical courses in Technology, Agriculture, Commerce, Home Science and Fine Arts in addition to humanities and science. Although the concept of the multipurpose schools has been readily accepted and the scheme has expanded rapidly, certain difficulties have been encountered, such as the lack of teachers trained to teach the practical subjects, insufficient teaching material, specially text-books limited range of elective courses and inadequacy of educational and vocational guidance facilities. During the Third Plan, therefore, it is proposed to concentrate on the consolidation of the scheme by strengthening the institutions already established, the programme of expansion being limited to about 331 new schools. An integrated teacher training programme for the multipurpose schools is to be undertaken, and for this purpose four regional training colleges will be established which will prepare teachers for the multipurpose schools through in-service and pre-service training programmes both in the practical and the scientific subjects. Steps will also be taken to stimulate greater experimental work in multipurpose schools for providing courses of study suited to different levels of ability, including special programmes of education for gifted students.

children who do not intend to continue their general education beyond the elementary stage. These courses have to be of varying durations, depending upon the trades and vocations proposed to be learnt. The Industrial Training Institutes will meet a part of this demand. To prepare students to take up employment after the secondary stage, a number of vocational courses are being provided after Class X in industrial training institutes, polytechnics, schools for nursing, and agricultural schools. It will also be necessary to devise a number of additional courses in response to new demands. Provision is being made for pilot projects for the purpose.

5. The report of the Fifth Five Year Plan (1975-79) on Vocationalisation of Education was not available. Hence it cannot be given in this section.

6. Vocationalisation of Education in the Sixth Five Year Plan 1980-85

One of the important links between education and development is provided by manpower development through vocationalisation of secondary education related to employment. This has to be carefully designed based on detailed surveys of existing and potential work opportunities and of available educational and training facilities. It should also keep in view the specific roles and

responsibilities of the different agencies and ensure coordination at the operational level between the developmental programmes and educational system. Such a differentiation would normally commence after the secondary stage and may cover varying periods depending upon the vocation area, group of occupations and the nature and level of skills needed. It envisages deepening of practical bias in the school education to be supplemented by appropriate apprenticeship in actual fields, farm or factory situations. It is not necessary to follow a rigid sequence in the order of acquiring the several skills and it should be possible to supplement exclusive vocational training courses with necessary educational component. In this way, suitable linkages need to be established with a system for occupational mobility and career development over one's employment/working life. For the provision of relevant practical skills agencies like Krishi Udyog and Van Vikas Kendras and other vocational training centre would be utilised particularly for learning by doing. Similarly, experienced craftsmen and practitioners of the arts would be used for imparting operational skills without undue insistence of pedagogic certificates. Wherever new facilities are to be created, they would be located, to the maximum extent possible, in the rural areas.

7. Vocationalisation of Education in the Seventh Five Year Plan - 1984-90

In this section only the relevant paragraphs quoted in the Seventh Five Year Plan (1985-1990) were used for the study. (vide caption No. 10.13; 10.41; 10.42; and 10.43).

10.13 Vocationalisation of education at the higher secondary stage was one of the important reforms included in the Sixth Plan. This programme has made limited progress with an enrolment of about 55,000 (72,000 in 1986) students in Vocational education, confined to nine states and three Union Territories where it has been introduced. Measures have been initiated to establish the necessary links confining Vocationalisation, skill training, inplant apprenticeship and placement in gainful employment as composite parts of an integrated efforts to raise the level of utility of the programmes, and its wider acceptance, and success. The organisational requirements for the planning, implementation, supervision and evaluation of the integrated programmes, along with the mechanism for effective coordination among the concerned agencies, are being assessed and defined.

10.41 The Socially Useful Productive work programme components seek to highlight the link between work and education and to develop positive work ethics and work habits.

The programme would allow for better utilisation and integration of community expertise in the teaching - learning process and the use of facilities available with local industry and development institutions. Besides, the supports system for development, training, management and supervision available for vocationalisation programmes will be utilised for the programmes of Socially Useful Productive Work at the secondary stage. Some courses activities of prevocational character will also be introduced for more effective implementation of this programme.

10.42 In view of the importance of linking education with productivity, a major impetus will be given in the Seventh Plan to Vocationalisation 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 services. It will be ensured that there is no duplication of course 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 would be provided.

10.43 Vocational/Career courses in educational institutions will be introduced in a flexible manner

linked to emerging work opportunities. The current intake will be considerably increased introducing vocational courses in many more institutions.

10.44 Based on the evaluation of the on-going scheme of Vocationalisation, States are taking steps to re-organise and improve the programme.

1.10 ATTITUDES

Concept of Attitudes

An attitude is a kind of mental disposition which is build through experience. According to Cantril (1934), "attitude is more or less a permanent enduring state of readiness of mental organisation which predisposes an individual to react in a characteristic way to any subject or situation with which it is related." Farris (1931), has observed that "an attitude is a way of conceiving an object; it is the mental counterpart of an object." Morgan (1934) is of the view that "attitudes are literally mental postures, guides for conduct to which each new experience is referred before a response is made."

An attitude can be considered as a readiness or preparation for response. Chave (1928) observes, "an attitude is a set of complex feelings, desires, fears, convictions, prejudices or other tendencies that give

an individual readiness to act because his varied experience." Warren defines attitude as "a condition of readiness for a certain type of activity".

An attitude can also be considered as a hypothetical construct which is not directly open to observation but which can be inferred from verbal expression of overt behaviour. Attitudes belong to the category of hypothetical constructs, since one is able to infer them from a limited set of observations. According to English and English (1968), a hypothetical construct is "an entity or process that is inferred as actually existing and as giving rise to measurable phenomena other than the observables that lead to hypothesising the construct."

An attitude may be positive or negative. It provides behaviour that is favourable or unfavourable, i.e., positive or negative, towards the object or class of objects. According to Bogardur (1931), "an attitude is a tendency to act towards or against some environmental factor which becomes thereby a positive or negative value." Sarnaff (1960), observes that attitude is a "disposition to react favourably or unfavourably to a class of objects." Collins (1870) is of the view, "an attitude is a residue, record or measurement of previous experience with the attitude object." Kruger and Reckless (1931) held that an attitude

is roughly "a residuum of experience by which further activity is conditioned and controlled." The experience may be a direct experience with the attitude object or socially mediating experience such as verbal or printed information about the object. The attitude object may be concrete or abstract.

Attitudes are psychological tendencies consisting of cognitive, affective and behavioral components. The cognitive component consists of the person's perception or beliefs about the object. The affective component of the attitude deals with the person's feeling towards the object. The behavioural component of attitude deals with the tendencies to react towards the object in given ways.

There are different types of functions associated with an individual's attitude. They are: Object appraisal, social adjustment and externalisation. The object appraisal function refers to his attitudes' usefulness in orienting him to the object in his environment. This helps him in classifying them. The social adjustment function refers to the part played by his attitudes in maintaining as well as disrupting social relationships. It is obvious that the social adjustment function of one's attitude helps in the mediation of 'self-other' relationship.

Attitudes perform the 'externalisation' function when they defend the individual's ego from anxiety.

An individual's attitude may be inconsistent. Social pressures produce sometimes the necessity for an individual to act contrary to his attitudes. Here, there is a disparity between an individual's private attitude and public commitments. There may also be some inconsistency between the cognitive and affective components of an individual's attitude i.e., in his beliefs and feelings.

Developing Attitudes:

For the successful practice of a vocation, one must have the attitudes appropriate to one's particular calling. Such attitudes as the following are involved in most occupations: pride in one's vocation, a persistent desire for the highest degree of efficiency, a feeling of social responsibility as a worker in the particular field involved, jealousy for the prestige of the calling, and high standards of vocational ethics in dealing with clients or employers and with fellow workers. Attitudes of this sort, as well as the opposite kind, are in large measure acquired by unconscious process.

One is likely to assume, by gradual degrees, the attitudes of his associates or his superiors in authority

in the vocation. Vocational attitudes are, however, much too important to leave wholly to chance, and it therefore becomes a part of the work of vocational education to build desirable Vocational attitudes. Some attitudes are essentially emotional in character, the problem is to produce appropriate or desirable, "feelings" with reference to the vocation. Basic factors are vocational self-respect and occupational pride. The other desirable attitudes seem to be predicated upon these two; hence it is important, as a phase of training, to develop these fundamental feelings.

An effective means of leading a learner to an attitude of vocational self-respect is to bring him, through effective training, to a feeling of mastery. There can be no large degree of self-respect as a practitioner unless one is conscious of the possession of skill and expert knoweldge. Nothing can take the place of such consciousness. Mere overconfidence, or egotism, does not produce the necessary attitude; it must come from genuine possession of knowledge and skill. For this reason the vocational teacher should be much concerned with imparting a rich store of professional, or occupational, lore and technical facts, as well as with rapid development of a high degree of skill.

Occupational pride, on the other hand, grows from a knowledge of the economic and social significance of the occupation to which one belongs and from a feeling of an exclusive fellowship with other members of the occupation. This feeling comes in part from the stressing, by the vocational teacher, of the importance of the vocation; and from putting the student in possession of the history and "secrets" or "mysteries" of the craft. Few things will produce the needed pride of occupation as effectively as a special knowledge of its history and "Mysteries," and the realisation that such knowledge is the peculiar possession of the members of the craft or profession. Inspirational talks, membership in professional or occupational societies, and more than all other influences, perhaps an unimpeachable occupational attitude maintained consistently by the instructor, are also means of producing a desirable occupational pride.

Proper attitudes of social obligations can be developed through example and precept, and through the insistence, on all suitable occasions, upon the practice of a high type of social and occupational ethics. It is not safe to trust to vocational ethics. If the vocational training agency neglects the building of desirable attitudes they may not be developed by occupational practice. Its importance makes it one of the major obligations of Vocational

Education. Above all techniques or methods is the example of the vocational teacher. His attitudes will inevitably affect the attitudes of his pupils.

Aspects of Attitudes

Attitudes are generally agreed to encompass three different aspects. These features are:

- i. A cognitive aspect - pertaining to the ideas or propositions that express the relation between situations and attitudinal objects.
- ii. An affective aspect - pertaining to the emotion or feeling that accompanies the idea.
- iii. A behavioural aspect - pertaining to the pre-disposition or readiness for action.

These aspects are considered to characterize the internal states that are the learned attitudes. In other words, each such state has an affective, or emotional, component, a cognitive component; and an "action tendency", or behavioural, component (Rosenberg and Hovland, 1960). Differences among theories of attitudes pertain to questions about which of these components is primary or which is a cause of the others. Many theorists hold that discrepancies in "beliefs" (cognitive component) result in attitude change (for example, Festinger, 1957). Others emphasize the learning of emotional (affective) responses to stimulus

objects by conditioning (Staats and Staats, 1958). A third and different view maintains that the attitudes follow from the individual's self-perception of behaviour (Bem, 1970). Actually, there is evidence to support each of these viewpoints, and it is difficult to choose among them. For purposes of considering how attitudes function, such a choice may not even be necessary.

Attitudes and Values

Values are often spoken about in the same breath with attitudes. Some investigators make no distinction between these two words, and this is perhaps the simplest point of view to adopt at the present moment. Others consider that value is a name given to a social attitude that enjoys wide-spread societal acceptance.

A widely held view of the relationship of attitudes and values is that the former may be arranged on a continuum that represents increasing degrees of internalization ranging from those that are lightly held to those that are strongly valued.

The most lightly held attitudes, according to this conception, fall into the general category of personal action called Receiving. An example of willingness to receive is "accepting differences of race and culture,

among people known." Increasingly greater degrees of internationalization of attitudes are indicated by the categories of Responding and Valuing. Preference for a value, for example is indicated by the kinds of action reflected in the descriptions "assumes an active role in current literary activities" and "writes letters to press on issues he feels strongly about."

Still greater degrees of internalization of attitudes are indicated by the categories of Organization and Characterization by a Value Complex. Since more than one value may be relevant to a situation values become organised, first, by being conceptualised and later by being conceptualised and later by being formed into a value system in which some are more dominant than others. At the peak of the internalization process a generalised set and a characterization of values is attained that is reflected in the development of conscience, codes of behaviour, and a philosophy of life.

During the course of individual development, different kinds of values, perhaps exhibiting differing degrees of "internalization," may become evident from the individuals' choice of personal action Kohlberg (1966) has described six stages of moral development covering ages from childhood to adulthood. A brief summary of three

stages, categorized in three levels, in as follows:

- i. Preconventional level - Stage 1 is "the punishment and obedience orientation," in which choices of action depend upon the physical consequences of the action. Stage 2 is called "the instrumental relativist orientation"; Choices are made that satisfy the child's own needs and occasionally the needs of others.
- ii. Conventional level - In stage 3, attitudes are characterized by "the interpersonal concordance or 'good boy - nice girl' orientation," a tendency to act in ways that please or help others and bring their approval. Stage 4 is "the 'law and order' orientation," leading to choices in accordance with authority and fixed rules.
- iii. Post-conventional, autonomous, or principled level - Stage 5 is described as "the social - contract legalistic orientation, generally with utilitarian overtones," in this stage, there is consideration of general individual rights and accepted societal standards. Stage 6 is "the universal ethical principle orientation," in which right actions are chosen in accord with self-selected ethical principles (the conscience).

While Kohlberg considers that such stages represent increasing degrees of maturity, he points out that moral development is not automatically achieved, and that some

adults do not attain the highest level. It follows, therefore, that the more mature attitudes need to be a part of what is learned as children grow into adults.

Education in the realm of morality aims at the development of moral character rather than simply a change in attitude in a narrow or temporary sense. A number of dimensions of character have been identified by Hogan (1973).

- i. Socialization, as shown by behaviour conforming to the established moral code.
- ii. Empathy, indicated by an understanding of other people's behaviour and an appreciation of their feelings.
- iii. Autonomy, the tendency of the individual to make moral choices consistent with his or her integrity as a person.
- iv. The ethics of personal conscience, or the ethics of personal responsibility.

Presumably, then, it is stable individual characteristics like these that represent the aim of "character education" in educational systems. It is difficult to identify the social forces, institutions, and experiences that affect such development in the human individual, for they are many. One can realize, however, that the

foundations for these stable character dimensions begin with the instruction for the young child in the family environment and in the early school grades.

Relatively simple, commonly occurring social situations can establish the attitudes that, when reinforced over a period of time, eventually become part of the individual's character. For example, the parent or teacher can exhibit the action choices of a human model in conforming to a prevailing moral code when the child is confronted with the question of respecting mother child's property or "turn" in a game. Likewise, the influence of the human model on an attitude of empathy can be exhibited in a social situation such as the hitting or kicking of another child of course, as the individual grows older, the normal decision to be made become more difficult. Their basis, however, remains in the concrete situations in which a variety of human models are seem to make choices of action.

Problems in Attitude Testing

Kochlar (1984), indicated a number of problems in attitude testing:

- i. Attitude is a complex affair which cannot be wholly described by any single numerical index. It is just as legitimate to say that we are measuring attitudes as it is to say that we are measuring tables or men.
- ii. People's attitudes are subject to change. When we have measured a student's attitude on any issue such as dictatorship as a form of government, we shall not declare such a measurement to be in any sense an enduring or constitutional constant. His attitude may change. Thus it becomes essential that the attitudes are tested after some reasonable interval. At the same time, the scales which are useful at present, may become obsolete after some time.
- iii. It is also difficult to get valid responses. The correlation between paper-pencil questionnaires and observed behaviour is low.
- iv. The scores of the individuals generally concentrate in the middle. That means their attitude is neutral. It is difficult to find out what are neutral attitudes - does this mean an individual who is undecided, who has not decided on either side, or an individual who is least bothered about us or our scale? It is also possible that the individual is not aware of the trait being tested.
- v. Discrepancies between verbally-expressed attitudes and overt behaviour have also been noted in the number of studies.

- vi. Every observation of overt behaviour may not always provide an accurate index of attitude.

1.11 CONCLUSION

This Chapter presented the background of the study. It has been seen that Vocational Education and Vocationalisation of Education has an important role to play in the District Development. Unemployment can be eradicated to some extent if the students' attitudes towards Vocationalisation of education are favourable. In order to meet and cope with the new demands, there is a need for internal restructuring and modification of content in education and for developing strong links between the school and departments, agencies and enterprises concerned with development such as industries, commerce, agriculture, health, etc. New thinking and consciousness are needed among educationists and leading people in other spheres of life. Manpower planning can be effective for improvement and also filling the gaps of demand and supply.

As Vocationalisation is a major transformation in education and cannot be achieved without structural and functional change in the whole set up, education is to be organised in such a manner as can enable the individual, particularly the school-goer, to be equipped as to be able to find opportunities for self-employment

or for work in actual life. In this regard different education commissions right from the Calcutta University Commission (1919) to the Kothari Commission (1966) and the National thrust upon Vocationalisation of Education. The different Five Year Plans have also shown its importance and the need of implementing it in the country as a whole. A review of related literature is given in the next chapter.

*There was a time when the world acted on books;
now books act on the world.*

- Joubert

CHAPTER - II

REVIEW OF RELATED LITERATURE

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2.0 INTRODUCTION

The previous chapter highlighted the background of the present study. The present chapter gives a review of literature relevant to the topic under study. The review comprises eight sections. Section 2.1, describes reports of the Committees and Commissions in India chronologically. Section 2.2, pertains to Work Experience. In Section 2.3, studies on Socially Useful Productive Work have been given. Section 2.4, deals with studies relating to Vocational Education and Vocationalisation of Education. Section 2.6, deals with studies on Vocational Environment. Section 2.7 deals with Vocationalisation of Education in the different states of India. Section 2.8, indicates the brief summary of the status of Vocationalisation abroad. It is followed by a chapter conclusion.

The review of the related literature was done with the following objectives:

- i) The review gives specific direction to the research work.
- ii) It is helpful to identify the problem and its significance.
- iii) It also helps to find out the gaps in the research work, the current trends in educational research and also the priority areas of research.
- iv) It is helpful to generate the hypotheses to be tested in the investigation.

- v) It facilitates the interpretation of the findings of the study.
- vi) The information available from the review regarding the design of the studies, the sample and the tools used are immensely useful to the investigator for avoiding wastage of time by trial and error method.
- vii) Finally the review is also useful to delimit the research area and problem and to organise the research report precisely and meaningful.

2.1 REPORTS OF THE COMMITTEES AND COMMISSIONS

1. The Woods Despatch (1854)

The Woods Despatch (1854) says, "This knowledge must teach the natives of India the marvelous results of the employment of labour and capital, rouse them to emulate us in the development of the vast resources of their country, guide them in their efforts, and gradually, but certainly confer upon them all the advantages which accompany the healthy increase of wealth and commerce, and at the same time, secure to us a large and more certain supply of many articles necessary for our manufactures and extensively consumed by all classes of our population, as well as an almost inexhaustible demand for the produce for the British labour."

The Despatch referred to the introduction of Vocational

Education in Secondary schools. The Despatch wanted new schools to provide more opportunities to improve education and it can be more useful to the members of society.

2. Indian Education Commission (1882)

The Indian Education Commission (1882) gave great attention to the provision of Vocational Education.

The report recommended that in the upper classes of high schools there should be two divisions, one leading to the Entrance examination of the Universities, the other of a more practical character, intended to fit youths for commercial or non literary pursuits. The recommendation was accepted and alternative examinations came to be organised in every province.

3. The Hartog Committee (1929)

The Hartog Committee (1929) observed, "The whole system of secondary education is still dominated by the ideal that every boy who enters a secondary school should prepare himself for the University examination. This indicates a great waste of effort. Such attempts as have been made to provide vocational and industrial training have little contact with the educational system and are, therefore, largely infructuous."

The committee suggested that the retention in the middle vernacular school of more of the boys intended for rural pursuits, accompanied by the introduction of a more diversified curriculum in those schools; and diversion of more boys to industries and commercial careers at the end of the middle stages, for which provision should be made by alternative courses in that stage, preparatory to special instruction in technical and industrial schools.

4. The Sapru Committee (1934)

The main objective of the Sapru Committee (1934) was to find out ways and means of solving unemployment problem. The Committee recommended 11 years of school education with Vocational studies commencing after 11 years of Education.

5. Abbot-Wood Report (1937)

Abbot and Wood (1937) submitted a report on the organisation of Vocational Education in India. On account of lack of time and with a view to having an intensive study of a limited area, the two experts visited only three provinces, viz., Delhi, Punjab and the United Province. They submitted their report on the 10th June, 1937.

The report suggested a complete hierarchy of vocational institutions parallel with the hierarchy of institutions imparting general education. One important result of their recommendation was that a new type of technical institution called the 'Polytechnic' came into existence. Technical, Commercial or agricultural high schools also started conducting non-literary courses.

6. Sargent Report (1944)

In 1944 the Sargent Report of the Central Advisory Board of Education on Post-war Educational Development in India recommended that there should be two main type of schools - The Academic and the Technical. It also recommended for making adequate provision for the efficient training of all these types of workers. Over and above this, the Report pointed out that there was an urgent need in India of what is called the part-time system. Part-time day classes constitute a factor of great importance in any modern scheme for technical Education. The students of these classes will be working in factories and other industrial or commercial concerns as paid workers and they will be given due facilities for improving the knowledge and skill required for their daily work.

One of the major objective of the educational reforms in India after independence was based on Vocational Education.

Therefore the importance of the committees and commissions should be stressed.

7. The University Education Commission (1948-49)

In 1948-49 the University Education Commission emphasised the need of establishing rural universities for teaching agriculture and allied subjects. The Commission also recommended for making medical education, teachers' training and education in law more progressive.

8. The Secondary Education Commission (1952-53)

The Secondary Education (1952-53) recommended the incorporation of Vocational courses in the secondary curriculum. It recommended that multipurpose schools should be started to provide varied courses of interest to students with diverse aims, aptitude and abilities. Technical schools in industrial areas and agricultural schools in rural areas should be set up. It suggested the introduction of diversified courses of instruction for the pupils. In the opinion of the commission the diversified courses should begin in the second year of the high school or higher secondary school stage. The Commission's recommendations do open up a new era of reconstruction and reform of education has also been made at the secondary stage.

9. Sampurnanand Committee Report (1962)

A Committee under the Chairmanship of the late Sampurnanand was appointed to study the problem of emotional and National Integration and to suggest positive educational measures. The Committee submitted its report in 1962. One of its recommendations was directly relevant to the present study. "That education be designed to suit the aptitudes and abilities of people and also meet the socio-economic needs of the country and that the pattern of education be related to the employment potential of the country and the educational and Vocational guidance services of the secondary stage be intensified."

10. The Indian Education Commission (1964-66)

The Indian Education Commission (1964-66) recommended (1) a broadly uniform pattern of education, (2) extension in the total period of schooling to bring about a general rise in the standards of attainment and (3) Vocationalisation of Education. Polytechnics are to be located only in industrial areas. Those in rural areas should give priority to agriculture and agro-industries, alongside polytechnics, clerical, scientific and industrial trades and in areas of special interest to girls.

11. National Policy Education (1968) on Vocationalisation of Education

Under the head 'Secondary Education' the Policy States, "There is need to increase facilities for Technical and Vocational Education at this stage. Provision of facilities for Secondary and Vocational Education should conform broadly to requirements of the developing economy and real employment opportunities. Such linkage is necessary to make Technical and Vocational Education at the secondary stage effectively terminal. Facilities for Technical and Vocational Education should be suitably diversified to cover a large number of fields such as agriculture, industry, trade and commerce, medicine and public health, home management, arts and crafts, secretariat training etc."

12. International Commission on Education and Development (1972)

The greatest event of the nineteen seventies was the release of the report of International Commission on education and Development (1972) under the auspices of UNESCO. The Commission critically assessed the educational situation in 1972 that is, "looking at the world as a whole, to try to discern common features, many of which can only be accounted for in terms of the past,

like the new trends which seems to be emerging in most countries and systems....."

According to the Commission rigid distinction between different types of teaching - general, scientific, technical and professional - must be dropped and education at primary and secondary levels must become theoretical, technological, practical and mental at the same time. Professional and technical training centres must be developed in conjunction with the Secondary Education systems. The instruction they give must be followed by practical training at places of work, all of which must above all, be completed by recurrent education and vocational courses.

13. The Report of the Committee on 10+2+3 Educational Structure (1973)

The Committee under the Chairmanship of Shukla and Singhal (1972) recommended Vocationalisation of Education at the higher secondary stage (Class XI and XII). The curriculum should provide two streams, i.e. (1) Academic stream (2) Vocational stream.

Vocational stream at the higher secondary stage should be taken to supplement the existing facilities for Vocational Education provided by the ITIs, Polytechnics, and Vocational schools.

The Vocational streams should provide specific job-oriented courses in one vocation carefully chosen out of the areas of work relating to agriculture, industry, trade and commerce, public services, e.g. Secretarial, para-medical, insurance, banking, marketing, education, etc.

The course content should include training and practical work to enable the student to get a job or establish himself as a self-employed person depending upon his choice and circumstances. Courses should be locally oriented. The course content of each vocational subject should include the relevant theoretical knowledge of the allied branches on the academic side.

Vocational guidance is required for effective vocationalisation of higher secondary education, some reorganization and strengthening of the existing educational and vocational guidance service in educational institution should be made.

**14. Higher Secondary Education and Its Vocationalisation -
Report of Curriculum Committee (1976)**

The Curriculum Committee Report (1976) under the Chairmanship of Ahmed, R., Suggested that:

- i. Vocationalisation of Education require district-wise surveys of economic activities and potentialities and consequent opportunities of work, or some kind of manplanning at the district level and assessment of manpower needs.
- ii. Adequate provision will have to be made for the students to further improve their qualifications and competencies in suitable higher vocational institutions, and vertical mobility in general.
- iii. The public examination system should be dispensed with and a system of continuous evaluation be adopted. The performance of students should be indicated by grades. The National Council of Vocational Education should determine equivalence among vocational diplomas and certificates issued by various agencies.
- iv. The following pattern and division of time were suggested -

A. Language General Studies	25% time for all streams.
B. Science, Social Science and humanities courses including literature	75% time for the academic stream. Students may offer courses from (C) also.
C. Science, Social Science and humanities courses designed to understand the basis and scope of various vocations.	25% time of the vocational stream.
D. Vocational and Practical Works	50% of the Vocational stream.

**15. Report of the Adiseshiah Review Committee (1977-78)
Vocationalisation of Higher Secondary Schools**

The Adiseshiah Review Committee (1977-78) submitted

a report which was entitled as 'Learning to Do' — towards a learning and working society. The major recommendations of the Committee are as follows:

- i. Work-based learning:- Learning must be based on work either through what Iswarbhai Patel Committee calls Socially Useful Productive Work or through Vocationalised Courses.
- ii. Vocationalised Course:- Vocational Courses should be in agricultural and related rural occupational areas and in managerial, commercial, health and paramedical vocations and not through opening vocational courses at this level in the manufacturing, industrial and engineering occupations. These should be flexible streaming courses.

The higher secondary stage should consist of both general educational spectrum and vocationalised spectrum. The Committee recommended for the setting up of National Council of Vocational Education and all agencies such as the Indian Council of Agricultural Research, All India Council for Technical education, the Nursing Council, the Dental Council, etc. should be members of this apex body.

16. Report of the Working Group on Vocationalisation (1978)

A Working Group on Vocationalisation was appointed under the Chairmanship of Sahanayagam (1978) made the

following recommendation.

- i. Vocational surveys should be conducted to identify the vocations having good employment potential, to locate good schools where the new vocational courses can be introduced and to assess the local assistance for on-the-job training. Vocational surveys should be conducted, in a phased manner before introducing vocationalised courses and only those courses which have good employment potential should be started.
- ii. During the next 5 years, vocational facilities should be provided in a minimum of 2000 schools/colleges in a phased manner of which 50 should be new ones.
- iii. There should be new vocationalised schools in rural areas.
- iv. Adequate incentives in the form of scholarship should be offered to the students of Vocational streams at the secondary stage.
- v. In all vocational schools/colleges, where vocationalisation are implemented, either the Head of the School or College or the Deputy Head should possess vocational qualifications in at least one major vocation, to look after proper implementation.
- vi. Preparation of curricula centrally should be done away with. Curriculum Committee consisting of Professional experts, future employers and academics should be set up for each region. They should be

entrusted to frame the curricula. The accent should be more on preparing students for self-employment than wage employment.

- vii. The programme of vocationalisation in rural areas should be linked with various programmes of rural development. In urban sectors, more stress should be laid on the courses in the areas of commerce and trade, textiles, para-medical electrical and other technical subjects.
- viii. Socially Useful Productive Work should be integrated with general education in the academic stream to equip all the students with certain elementary skills.
- ix. Creative Work Centres/Hobby Centres should be established to encourage creative faculties of the youngsters and to promote productive impulses.
- x. Steps should be given to provide vocational guidance and counselling facilities for careers and courses to all the students.
- xii. Since Vocationalisation of Education falls into the purview of 12 years school education, it is necessary that it remains under the administrative control of a Senior Officer, at least of the rank of a Bureau Head, whose staff should be adequately strengthened to enable the Bureau Head to discharge his responsibilities effectively and expeditiously.

17. National Curriculum in Primary and Secondary Education - A Framework (1985)

The NCERT prepared this document to act as guide to the existing institutional structure for the curriculum research, development and dissemination. It explains the significance of Work-experience, Socially Useful Productive Work and Vocationalisation of Education.

It stressed on the great need of a comprehensive set up for the management of Work-Experience, Socially Useful Productive Work and Vocationalisation of Education programmes within and outside the system of formal education.

Introduction of Pre-Vocational courses based on local trades and occupations under Work-experience and Socially Useful Productive Work at the upper Primary level and Secondary stages may prove to be a source of motivation in the rural and tribal areas. Introduction of these courses in schools may improve the theoretical and technical foundations of these productive activities and services through the mobilisation of professional inputs in these programmes.

18. The Kulandaiswamy Report (1985)

The Government of India took serious note of the tardy implementation of the policy of vocationalisation,

the importance of which had been emphasized time and again by various committees. With a view to accelerating the progress of Vocationalisation and revitalising it so that it can meet the massive challenge of unemployment on the one hand and reduce the overcrowding in higher education on the other, the Government of India appointed a Working Group headed by Kulandaiswamy (1985).

The Working Group was called upon to formulate the concept of Vocationalisation at different levels, recommend the nature of courses and linkages among different agencies, and prepare an action for the promotion of Vocationalisation in the country.

The group submitted its recommendations on all the points and urged the Union Government to come forward in a big way to support the programme of vocationalisation in the country. Besides being responsible for policy making, coordination and standardisation, development of curriculum guidelines and review and evaluation of the programme, it should provide full financial assistance for the achievement of the stipulated targets.

19. The National Policy of Education (1986)

The National Policy of Education (1986) dealt with Vocationalisation in its fifth Chapter which contains

8 paragraphs (5.16-5.23).

The introduction of systematic, well-planned and rigorously implemented programmes of Vocational Education is crucial in the proposed educational reorganisation. These elements are meant to enhance individual employability, to reduce the mis-match between the demand and supply of skilled manpower, and to provide an alternative for those pursuing high education without particular interest or purpose.

Vocational Education will be a distinct stream intended to prepare students for identified occupations spanning several areas of activity. These courses will ordinarily be provided after the secondary stage, but keeping the scheme flexible, they may also be made available after Class VIII. In the interest of integrating Vocational Education better with their facilities the Industrial Training Institutes will also conform to the larger vocational pattern.

Health planning and health service management should optimally interlock with the education and training of appropriate categories of health education at the primary and middle levels will ensure the commitment of the individual to family and community health, and lead to health-

related vocational courses at the +2 stage of higher secondary Education. Efforts will be made to devise similar vocational courses based on Agriculture, Marketing, Social Services, etc. An emphasis in Vocational Education will also be on development of attitudes, knowledge, and skills for entrepreneurship and self-employment.

The establishment of vocational courses or institutions will be the responsibility of the Government as well as employers in the public and private sectors; the Government will, however, take special steps to cater to the needs of women, rural and tribal students and the deprived sections of society. Appropriate programmes will also be started for the handicapped.

Graduates of Vocational courses will be given opportunities, under predetermined conditions, for professional growth, career improvement and lateral entry into courses of general, technical and professional education through appropriate bridge courses.

Non-formal, flexible and need-based vocational programmes will also be made available to neoliterates, youth who have completed primary education, school dropouts, persons engaged in work and unemployed or partially employed persons. Special attention in this regard will be given

to women.

Tertiary level courses will be organised for the young who graduate from the higher secondary courses to the academic stream and may also require vocational courses.

It is proposed that vocational courses cover 10 per cent of higher secondary students by 1990 and 25 per cent by 1995. Steps will be taken to see that a substantial majority of the products of vocational courses are employed or become self-employed. Review of the courses offered would be regularly undertaken. government will also review its recruitment policy to encourage diversification at the secondary level.

20. Programme of Action On Vocationalisation of Education 1986

The programme of Action on Vocationalisation of Education 1986 is given in brief.

In 1976 the National Council of Education Research and Training (NCERT) Document "Higher Secondary Education and its Vocationalisation" was presented to the country setting out a model conceptual framework for implementation. The programme for Vocationalisation of higher secondary education was initiated in 1976. Since then it has

been implemented in 10 states and 5 Union Territories. A number of other States are likely to introduce Vocationalisation in the academic year 1986-87. The current intake in the vocational stream is the order of 72,000. Only about 2.5 per cent of students population entering higher secondary stage is covered by vocationalisation so far.

Being aware of the importance and need for diversification of secondary education - its vocationalisation, the Ministry of Human Resource Development, Govt. of India and NCERT have initiated many actions and made many proposals. Evaluation studies of vocational programmes in most of the States were conducted to provide the findings to the States for improving implementation.

In spite of all these efforts, the scheme of Vocationalisation of Education has not yet picked up. There have been many factors responsible for the slow progress, such as, absence of a well coordinated managements system, unemployability of vocational pass outs, mis-match between demand and supply, reluctance in accepting the concept by the society, absence of proper provision for professional growth and career advancement for the vocational pass outs, etc. Renewed effort are being made in the States to accelerate progress. Urgent steps to strengthen the

Vocational Education System are therefore imperative.

While the factors contributing to the rather unsatisfactory progress on the vocationalisation front may be many, the single most important aspect is the inadequate organisational structure to the task and its consequent inability to implement the accepted policies.

At present the management systems for various sectors of Vocational Education work in isolation and with hardly any coordination either at the National, Regional or State level.

At the National level, the post-secondary Vocational Education (Vocationalisation) and Vocational Education for the out-of-school population are looked after by many organisations under different ministries without having proper coordination and linkages. At the State level the system is still fragmented and inadequate. A few states have a full time Director etc. the others have a middle level official looking after the vocationalisation programme in addition to his other responsibilities. No mechanism is available to coordinate the vocational programme at district levels and to undertake activities like, district level need surveys for identification of manpower requirements, for developing need

based vocational courses etc.

Keeping in view the variety of functions performed in planning and implementing programmes of Vocational Education and the scale of operations commensurate with the desired change at post-primary, post-secondary and post-higher secondary stages it is necessary to organize an effective management systems.

Socially Useful Productive Work (SUPW), Work Experience should form an integral part of the curriculum in many states at the primary, middle, and especially at the secondary stages. These activities at secondary stage are expected to enable students to opt for vocational programmes at the +2 level with better appreciation and understanding.

2.2 STUDIES PERTAINING TO WORK-EXPERIENCE (WE)

1. Nagaraju (1971) studied the attitude of teachers working in secondary schools of Bangalore city towards WE programme. The Likert attitude scale was used in the data collection. Seventy-five high schools were selected giving due representation to Government, Corporation and Aided Schools. Six hypotheses were formulated and tested. A chi-square technique was used to find out the significant difference between the observed and the expected

frequencies of responses.

The findings of the study were:

- i. With regards to the three aspects of attitudes, namely belief (cognitive) feeling (affective) and behavioural (conative), there was marked difference in response towards the three aspects.
- ii. There was agreement to both positive and negative statements reflecting the same type of confusion.
- iii. Teachers in general were found to have positive beliefs but are having unfavourable responses towards the Statements concerning actual practice.
- iv. There is a discrepancy between favourable verbal response and actual practice.
- v. There is a gap between belief, action, and behaviour as a serious handicap to the successful implementation of the WE programme.

2. Sharadama (1972) has made a survey of the problems of introduction of WE. The objective of the study was to find out the extent of awareness among the teachers and Headmasters about the WE programme. A rating scale and a questionnaire form was used as a tool for data collection. A sample of thirty schools were selected and stratified into Government, Corporation and Aided.

The tools were administered to the teachers and headmasters in the sample and data was collected. Chi-square was used to test the hypotheses and their level of significance, percentages were also worked out to support the findings of the Chi-square values.

The major conclusions of the study were:

- i. Most of the Headmasters had not taken any initiative in introducing this programme.
- ii. There is no proper equipment.
- iii. The teachers did not volunteer to help the sponsor teacher; and
- iv. They have not conducted any survey of the We activities implemented in the community.

3. An interesting study was undertaken by Dharmadhikari (1973) in Jalgoan District on 'A Critical Education of Teachers' Handbooks for WE. This study was confined to the analysis of three handbooks, namely, Repairs and Care of Electrical Appliances, Repairs and Care of Electrical Appliances, Repairs and Care of Stores and Book-binding.

The result of the study showed that (i) the handbooks, in general, contained sufficient information and appropriate work charts for achieving the relevant educational

objectives. (ii) The figures given in the book needed to be revised. (iii) British weights and measures used in the handbooks had not been replaced by the metric measures. (iv) The Original English technical terms existed in the handbooks. (v) In some schools, the time schedule did not permit demonstration and practical work specified in the handbooks.

4. Kulkarni, (1975), investigated into the attitudes of pupils, parents and teachers towards WE. The objectives of the investigation were (i) to measure the attitudes of pupils, teachers and parents towards WE (ii) to compare the attitude towards WE among boys and girls, and among rural and urban pupils, (iii) to find out pupils' preferences for different crafts included under WE and (iv) to assess how far the objectives of WE were realised in schools.

The study included the analysis of WE Programme prescribed for standards I to VII. However, pupils of Standard IV to VII only were considered for studying the attitude. An attitude scale was prepared following the Likert method of summated ratings. The scale consisted of ten positive and ten negative items. Means and Standard Deviations were calculated for different categories of respondents, critical ratios were computed in order to

compare the scores of urban and pupils and of boys and girls.

The major findings and conclusions of the study were:

- i. About 90 per cent of the pupils had a favourable attitude towards WE.
 - ii. About 96 per cent teachers and 88 per cent parents had a favourable attitude towards WE.
 - iii. The majority of the respondents expressed that WE was effective in inculcating in the pupils the love of labour, curiosity, scientific attitude and such other characteristics.
 - iv. Among the different crafts introduced both boys and girls gave first preference to drawing, boys gave second place to gardening while girls chose sewing; neither boys nor girls liked spinning as a craft.
 - v. There was need to develop a handbook for teachers of WE and to provide them suitable training.
 - vi. In Standards IV and V only the rudiments of WE should be introduced and it would be treated as a fullfledged and compulsory subject in Standards VI and VII.
 - vii. Availability of raw materials should be a basic criterion for selecting particular crafts under WE.
5. The State Institute of Education (1977) investigated

on 'Working Holidays in Rajasthan,' on fifty pupils of Classes VIII, IX and X. One of the findings showed that the pupils profited through systematically planned Work Experience activities and remedial teaching.

6. A critical study, conducted by Tharyani (1978), on the 'Effectiveness of the Revised Curriculum for Classes VIII, IX and X in Maharashtra State', found that, the programmes of WE and Social Philosophical, Psychological and Educational service included in the new curriculum were not properly integrated with the programme of general education.

7. An investigation conducted by Sali (1978) on 'We in the secondary schools and the Teaching of Optional Subjects pertaining thereof' in Maharashtra, revealed that,

- i. Most schools included two WE subjects; a few schools offered more than two subjects.
- ii. There were eleven schools without any provision of WE;
- iii. Only 1,405 (57.58 per cent) schools offered agricultural subjects under WE; of the 1,405 schools offering these subjects 1,395 schools were in rural areas and 310 in urban areas.
- iv. Four hundred and fifty-four schools most of which were in urban areas, had facilities for technical subjects.



- v. The number of periods allocated for the teaching of the subjects was adequate.
- vi. The training provided to most of these teachers (70 per cent) was through in-service workshops.

8. 'A Study of the Problems Bearing on Teachers Education in the context of the 10+2 pattern' was conducted by Goyal and Chopra (1979). One of the objectives was to find out the problems faced by the various agencies in the preparation of teachers for the new pattern.

The finding revealed that since the syllabus of various subjects in the new pattern of school education had been enriched and a number of new activities had been added, there was an urgent need for in-service training of existing teachers working in the schools under the new pattern. Such areas were environmental studies, arts, music and other aesthetic activities, development of moral values, WE, SUPW etc. Some teacher Education institute in the State were not offering WE activities and SUPW.

9. One of the findings of Somaiah (1980) in the study on 'Effective cost of Education in Karnataka' revealed that the higher percentage of wastage between Classes V and VII indicated that the curriculum should include WE and SUPW.

10. Lahi (1981), in a critical study of the WE Programme in Secondary Schools of Kerala made the following objectives: (i) to study the functioning of the WE Programme and the difficulties experienced in its working, (ii) to study the advantages the pupils get from the programme and their difficulties in participating in it, (iii) to find out pupils' attitude towards WE Programme and their interest in it, (iv) to find out parents' attitude towards WE programme, and (v) to find out the improvement needed for the proper function of the WE.

Questionnaires, attitude scales and an interest inventory were prepared and used to collect data. Interviews and observations were also used to supplement the data.

The major findings of the investigation were: (i) Most of the schools made the WE programme compulsory during 1975-79, but participation in the programme by pupils of Standard IX was not compulsory. The School subjects were given more importance than the WE Programme. (ii) Heads of Schools faced difficulties in organizing the WE Programme for want of accommodation, funds, trained teachers and text books. (iii) Cleaning and maintenance of the school building, beautification of classroom and gardening were found the most common activities

in all schools. (iv) The aversion towards work was reduced considerably. They acquired basic practical knowledge in various kinds of work. (v) Pupils had keen interest and positive attitude towards WE programme even though they were not found aware of the importance of work. The schools had no programme of evaluating pupils' attitude towards WE (vi) Parents also had very favourable attitude towards WE, and (vii) The WE Programme was considered as important as other subjects in the school curriculum.

11. Srivastava and Srivastava (1983) conducted a study of Attitude towards WE. The objectives of the study were (i) to study the attitude of students towards WE, (ii) to measure and compare the attitude of students towards WE belonging to different socio-economic status. A sample of 100 students has been selected randomly from Class VII, VIII and IX who have experience of studying one or more years in WE programme in Kendriya Vidyalaya. A Likert attitude scale was developed by the authors to measure the attitude towards WE.

The conclusions of the present study showed that,

- i. percentage of students having favourable attitude towards WE (25%) is more as compared to percentage of students having unfavourable attitude (25%).

- ii. There is no difference in the attitudes of students towards WE belonging to different socio-economic status group. The WE programme is equally liked and disliked by students irrespective of their socio-economic status.

2.3 STUDIES PERTAINING TO SOCIALLY USEFUL PRODUCTIVE WORK (SUPW)

1. Bajpai and Seshagiri Rao (1980) conducted a study on the potential for SUPW Teaching in our schools. Their inference from the study was summed up as follows:

- i. There is ample scope for utilizing the talents existing in the on-the-job school community for SUPW Programme.
- ii. These teachers may need some kind of refresher training in the area of their interest followed by some financial incentive by the school for their extra attention and overtime work, in order to get the best out of them toward effective implementation of SUPW Programme.
- iii. The help of some experts from the community may become necessary only if the school decides to impart some specialised technical skills to the students through SUPW Programme. Otherwise the existing team may very well be relied upon.

2. Savur (1980) gave a report on Socially Useful Productive Work in Gandhi Shikshan Bhavan. The report

shows that the main objectives of SUPW were:

- i. to acquaint the student-teachers with the world of work and services to the community and develop in them a sense of respect for manual workers;
- ii. to help them understand the principle, processes and skills involved in various forms of work;
- iii. to help them understand their role in developing SUPW activities in schools as a means and medium of learning to the extent it is possible;
- iv. to develop psycho-motor skills and abilities leading to desirable personal and social qualities and positive attitudes to the world of work; and
- v. to provide opportunities for creative self-expression.

After evaluating, the faculty found that out of 83 students, 21 students had shown their interest in learning three to four skills and had produced excellent articles. Fifty-five students were a little slower in picking up skills.

3. A report of students' participation in Socially Useful Productive Work by Savur (1982) indicated that the main objective for introducing SUPW are:

- i. to realise that there should be no dichotomy between the world of classroom learning and the world of work and service to the community;
- ii. to develop initiative and dignity of labour;
- iii. to get opportunities for creative self-expression;
- iv. to develop a few psycho-motor skills and abilities; leading to desirable personal and social qualities;
- v. to realise their role in developing SUPW activities in schools.

The conclusions of the findings indicate that,

- i. the students not only enjoyed the activity, but also learnt some psycho-motor skills;
- ii. they understood how learning becomes enjoyable when it is correlated with certain activities. They experienced it during their practice-teaching lessons in schools;
- iii. the skills learnt during SUPW were used throughout the year for preparing projects, folders, posters, whenever required. The entire faculty of the college enthusiastically participated in their activity in giving training in different areas of work.

2.4 STUDIES PERTAINING TO VOCATIONAL GUIDANCE (VG)

1. Vasudevan and Feroze (1974) conducted a study on the awareness of vocational opportunities of students

in the S.S.L.C. class and found that:

- i. Students are unable to understand certain jobs;
- ii. the ignorance of vocational opportunities available and minimum qualification required to enter them is really a deplorable fact; and
- iii. it is highly necessary to start courses in the secondary schools. Whenever possible, career talks may be arranged by VG Officer. Besides, each school can have one of the teachers trained as career master.

2. A study conducted by Kumar (1975) on vocational aspiration and need of VG found that:

- i. Mostly highly qualified persons want to adopt academic professions rather than administrative or social occupations;
- ii. Social Workers (10.90) and journalists (5.77), showed that they were 16.67% from the total sample of 156 students of Arts, Science courses at the post-graduate level. It shows that a lesser number of highly qualified persons want to be social workers;
- iii. Only 15.38% from the total sample aspired for competitive jobs; and
- iv. 12.82% from the total sample wants to lead independent jobs like business and law.

With regards to VG, there is a great need to introduce it even at a post-graduate level by which time one (20-21 years), almost attains psycho-physiological maturity. The need at a pre-university stage is accordingly much greater as, at that stage, the boy is far less mature and is unable to appreciate relationship between his inner urges and outer demands.

The study highlighted the fact that almost three fourth of the highly qualified students who would be ushered in the main stream of the country's socio-economic life would be there who had felt the need of VG even at the post-graduate levels. What the country would get from them would, therefore, be confused aims and a cluster of ambitions where independence of judgement and adventurism finds a place in the back-yard.

But it also strengthens the view that psychological advice at various stages of life of such persons would be welcome opportunity. It underlines the need of such a study among the selected population of white collared labourers, academicians and others who are not engaged in creative or productive work. Such population consists of guilt-ridden persons who get more (proportionately) for less work. A study of these can be made use of for discovering how this population would endeavour to free

itself of its guilt and crisis of conscience and address itself to more creative manual work through what Maslow said "peak experience."

If these services like vocational evidence and counselling start their role from the very beginning (High School/Higher Secondary level) students can be saved. It can save the parents, guardians and society from the great burden. The society can ill-afford such a wastage and should be able to spend more money to help its member to find a better use for their talents and non-talents.

2.4 STUDIES PERTAINING TO VOCATIONAL EDUCATION (VE) AND VOCATIONALISATION OF EDUCATION

1. Dewasthalee (1978) in an investigation into the present secondary Education curricula (Standard V to X) in the Maharashtra State with a view to revision in the context of Vocationalisation of Education at all levels found and recommended as follows:

- i. The academic atmosphere was in favour of Vocationalisation;
- ii. VE should begin from Standard V;
- iii. some Vocational courses should be introduced for the dropouts;

- iv. Vocational courses should not be treated as extra;
- v. a pupil must be given a certificate for successfully completing a Vocational courses;
- vi. in Vocational courses emphasis should be on practical aspects;
- vii. a comprehensive programme of Vocational Guidance is necessary;
- viii. a common vocational school should be set up to meet the needs of various neighbouring schools.

2. Chikermane (1979), in a study on 'Elementary Non-formal Education for out of school children', experimental to develop a scheme for elementary non-formal education for out-of-school children after an analysis of content and its organisation for achieving a certain level of academic standard in elementary Non-Formal Education Centres (ENFEC). The findings indicate four major educational needs. And a curriculum for six subjects was drawn up. Details of content and activities were listed.

The findings of the experiment were:

- i. Universalisation could be achieved through part-time education for out-of-school children.
- ii. The part-time education should be of three categories, one catering to the majority who dropped out before Class IV, the second being

general education for those who left after Class IV but would be going in for secondary education and the third being Vocational Education for those who left after Class IV, desiring to take up a vocation.

iii. Though it was not feasible to have separate classes for the small number who had studied till Class IV, they required some compulsory education and element of Vocational Education, particularly, agriculture and gardening.

iv. All education should be imparted through activities and their work on farms be related to the instructional programme.

3. In an evaluation study conducted by Desai and Patel (1981) in the Ashram schools of Gujarat found that, the daily programme of work was more or less strictly observed in all schools. Among vocational subjects taught, farming was the most prominent one.

4. Thimmaiah, et.al (1981) conducted a study on Vocational Education, problems and prospect. The main objectives of the study were:

i. To evaluate the overall demand for vocational skills in Karnataka State in relation to the vocational courses offered.

- ii. To review the programme of Vocational Education in the state with respect to enrolment trends, selection, procedures, resource position, etc.
- iii. To focus the problem of VE and highlight its prospects; and
- iv. to make policy recommendations on the future programme of vocationalisation.

All the 45 colleges offering vocational courses in Karnataka were considered for the study. Data from all the Principals were collected through a schedule and interviews were held for intensive information. Such information was also collected from some principals through a questionnaire. The teachers teaching the vocational courses and the students - (18 girls and 118 boys from among the present students, and 20 girls and 20 boys from among those who had passed out of the vocational institutions) of these 13 colleges were also interviewed.

The major conclusions of the study were:

- i. The courses offered for VE were not consistent with the skills identified in shortage category, and the shortage categories did not find a place in the list of courses identified.

- ii. The proportion of the girls taking up vocational courses increased considerably from the base year 197-78 through the succeeding years 1978-79 and 1979-80. The proportion of Schedule caste students in the enrolment also increased. The participation of the scheduled caste girls are slightly higher over the years than the scheduled caste boys.
- iii. In general there was a rush for vocational courses over the years. Engineering courses were more sought after in Urban areas and business courses in non-urban areas.
- iv. The colleges gave greater weightage to the parents traditional occupation while giving admission to students to various vocational courses.
- v. The preception of local needs for the vocationally trained skilled personnel (by the Principal and Staff) and the relative demand by a student for a certain type of vocational course emerged as the two major criteria followed by the colleges when they offered a particular course to a student.
- vi. Wastage in VE was very low as compared to wastage in the general P.U.C. course.
- vii. The equipment position of the colleges offering vocational courses was quite sound.
- viii. The colleges depended heavily on part-time teachers to run their vocational courses.

ix. Quite a few colleges found it difficult to get teachers for vocational courses.

5. Soundravalli (1984) in a critical study of the functioning of the VE Stream in Higher Secondary Schools in Tamil Nadu, found that the attitudes to manual and technical employment are not by any means unfavourable. Of course vocational programmes do not seem to have had any appreciable effect on the motivations or orientations in the world of work of the students taken for the study.

It was suggested that periodical public opinion survey may be undertaken in each district to find out the changing needs of the society.

The plus three stage undertaken by the universities, should include job oriented or job motivated courses. At this juncture, the universities would do well by being aware of the needs and demands of the community as well as the projected industrial trends of the locality.

Some advanced and specialised vocational courses, building on the vocational courses offered at the plus 2 stage could be included at the plus 3 stage. Some of the post higher secondary vocational courses may be offered either in the polytechnic or in the technical

institutes.

A cell for occupational research and curriculum development may be set up at the state level for collecting data on occupational needs and occupational pattern of the workforce for the whole state. Since manpower and development needs differ according to different areas within the state, planning at the district level is an important aspect of planning for VE.

There should be a VG bureau in each school complex which should keep the students know the importance of studying vocational subjects. The employment opportunities, the possibilities of self-employment and the courses, which they can seek after the completion of their higher secondary education.

The selection of students to this group should be based on an aptitude test, unless the students choose the vocational courses with proper aptitude, they would not enjoy the course and they will never become skilled technicians. They will be like square pegs in the round holes. The development of the country depends on skilled technicians in all kinds of technologies. In the higher secondary stage itself proper training should be given to the students to get skilled and interested technicians.

So when a student chooses a vocational course he should be offered the course which suits his interest. Hence aptitude tests should be conducted to students, before admitting them into the vocational course.

Schools should take more interest to find out the local needs as well as the needs of the students before introducing and vocational course in their schools. New courses can be introduced based on the opinion of parents and the standard of students.

There should be wide publicity and proper motivation among the public so that they can realise the importance of Vocational Education.

The industrialists and factory owners should be made aware of the fact that the skills acquired by the vocational group students are in no way inferior to that of an apprentice, learning a trade in the factories. More job opportunities should be given to those vocational course students by the industrialists and factory owners.

From the investigation, it is revealed that the functioning of VE stream in higher secondary schools is satisfactory to a great extent.

6. A project evaluation of arts and crafts, under

the chairmanship of Bareh (1989), was conducted at a few places around Shillong and Jowai in Meghalaya under the aegis of the Centre for Creative Arts, NEHU, Shillong.

The project was undertaken to make an assessment of traditional arts and crafts in the framework of art criticism and vocationalisation. The project covered the traditional enterprises in blacksmithy, handloom-weaving and pottery.

It was found that blacksmithy still existed on a large scale at Sohryngkham, Mongkynrih, Kmai, Shnong, Tuber and Myllem besides other minor villages. The blacksmiths produce iron tools and implements required for mining, masonry, construction work, agriculture and other purposes. Several iron grades are used for forging and modelling the tools, implements and instruments. While blacksmithy confines itself mostly to production of implements of daily use, the processes of operation in gold smithy involve delicate and intricate workmanship for making ornament and jewellery. The gold and silver smiths exhibit considerable skills in moulding and giving shape to precise designs and symbols which are highly aesthetic. Goldsmitheries are still noticed in towns and a few villages.

Activities in traditional handloom weaving operated through a throne shuttle have dwindled to a large extent. Traditional weaving which involves the rearing of the silk cocoons and the cultivation of cotton especially in the hot damp places, has become more and more limited. The processes of genning, spinning, extraction of thread and dyeing of skins have been on the wane. Consequently, weaving and dyeing are decreasingly practised in only a few villages. The flying shuttle introduced in a few government weaving extension centres and units, on the other hand, has assumed considerable importance in the case of the weavers engaged in the production of a few models of aprons, bed clothes, bed quilt covers, towels and curtains etc. Items of festive dresses with colourful designs mostly of silk, errandi and cotton have become fewer. Most of the colourful, precious costumes including jainsem, Dhara, Muka and turbans are now brought from the mills outside the state.

As regards pottery, it was found that the local potters were busy producing several models of jars, basins, dishes, kettles bowls and other items. Some of the earthen pot and bowls have had considerable demand both inside and outside the state. But it was a matter of regret that pottery, which existed for hundreds of

years at Larnai and Tyrshiang met its abrupt end because recently the potters have been prohibited from using the black loamy soil they were accustomed to use for ages by the processes of twisting, modelling and surfacing. The potters are thus deprived of the means to continue the trade. Pottery, thus has been destined to extinction.

The bamboo and cane works are still widely practiced because of the fact that bamboo baskets, trays, canes, cages, sun and rain caps and mats are even now considered essential for commercial purposes and domestic uses. Besides most of the bamboo baskets have considerable demand to be used as market storages and containers of agricultural crops, grains, meat and fishes.

2.6 STUDIES PERTAINING TO VOCATIONAL ENVIRONMENT

1. Rai (1971) while studying the Vocational Preferences of students of Class X in the state of Haryana, found that high school students of Haryana had given their first preferences for nine different professions, viz. Medicine, Teaching, Law, Military, Engineering, Business, Management, Politics, Agriculture and Science.

2. Urmila (1976) indicated that mostly urban students

preferred Engineering, Medicine, Law and Military services, whereas majority of rural students preferred agriculture and teaching.

3. Sahoo's study (1977) on vocational preferences of secondary school pupils say that the nature of vocation is related to the status of students and the difference in vocational preferences have been masked accordingly. The students showed first preference for agriculture because 80 per cent of the rural inhabitants depended upon their vocation. All the groups of students showed preference to this vocation, with low income group students showing more preference than other two income groups. Mechanical jobs, stenography, fine arts, book-binding, carpentry, and masonry are not considered as good vocations in the state. These vocations, except mechanical jobs, did not draw more attention to students in general, but in comparison to higher and middle class students, lower class students showed more preferences. Vocations like Electronics, Electricals, Home Science, Fishery, Nursing and Music were preferred by all the groups of students and no differences were marked among the three income group.

4. In one of the findings in a study of Relationships between Values and Vocational Preferences of Adolescent by Yadav (1980) indicates that the students have shown the highest preferences for executive work and least for music. The same thing has been observed in the case of the Arts and Commerce students. The science students have shown the highest preference for jobs related to the area of physical sciences. Agriculture students have given highest preferences for executive work and least preference for music.

5. Raina (1987) conducted a study on vocational preferences of secondary school pupils of Kashmir Valley. The objectives of the study was -

- i. to find out the most preferred vocation of Class X students;
- ii. to study whether there were any differences in the vocational preferences of economically well-off and backward children;
- iii. to find out the differences in the preferences of rural and urban boys.

A sample of 400 students of Class X of the 12 selected schools, i.e. 200 urban and 200 rural, were taken for the study. A questionnaire listing 100 items on 25 vocation was developed by the investigator. The

findings of the study revealed that (1) there was no significant difference between rural and urban boys of Kashmir valley in their choice of 25 vocations. In other words, vocational choices were almost similar in both the cases; (2) the higher income group students preferred mostly the vocations of Engineering, Medicine, Tourism, Hotel Management, Police, Business, Announcing and Composing, while the boys belonging to the low income group preferred teaching, agriculture, typewriting, forestry, arts and crafts, dairy farming, packing and embroidery. On the other hand the middle income group boys preferred the professions of fishery, police service, medicine, typewriting, tourism, hotel management, announcing and composing and radio, T.V. mechanic; (3) the vocational choices of Class X students in rank order showed that professions like, Engineering and Medicine with the means of 6.04 and 5.58 respectively, were more preferred. The least preferred were professions of Library Science, Dairy Farming and Spinning and Weaving.

6. Bose, et al (1970) investigated into the Interest Patterns of the students in Science, Humanities and Commerce streams at the higher secondary level and concluded that

- i. interest patterns for all groups were not identical and the pair-wise comparison indicated

that there was a wide variation between the groups in this respect;

- ii. there was much similarity between the interest patterns of the commerce and humanities groups but the science groups were much different from both commerce and humanities groups as far as interests were concerned. These similarities and dissimilarities in the interest patterns for different groups could provide adequate aid in a guidance situation.

7. A cross-cultural study of Status and Vocational Aspirations among Aboriginal Tribes of Baster by Mishra (1975) indicated that the father's vocational status did not influence the vocational aspirations of the subject, except in the case of upper-caste females and lower class females where the father's vocational status on the aspirations of subjects appeared significant. Significant difference in the vocational status as a correlate of vocational aspirations were found between the tribal and non-tribal, upper caste and tribal, lower caste and tribal and male and female groups. The upper caste and the lower caste did not appear to differ in their distributions of vocational aspirations while the upper caste were found to differ from other community groups in their vocational aspirations.

8. In a study conducted by Solanki (1976) on the problems of Tribal Students Going for Higher Education, found that out of the twenty-eight tribes in Gujarat State, children from only fifteen tribes had gone for higher education. Most of the students joined arts, while very few joined medical, engineering and agriculture. Forty-five per cent of the students came from families with educated parents. The majority of them hailed from joint families. For more than half of the drop-outs at the college level, the annual income of their parents was less than Rs.1200. One-fourth of the students were in such a condition that they had to either earn while learning, or get a scholarship, or borrow money from their relatives and friends in order to complete their education. Many of them faced financial problems.

All the students agreed that they could not have gone for higher education if special facilities were not provided to them by the government and suggested that the practice should continue. They had friends from non-tribal as well as Scheduled caste group and did not find any problem of social adjustment.

9. In an investigation by Sunderarajan (1977) into

the process of Change in the Values, Attitudes and Career Commitment of Students of Hotel Management and Catering Technology as a Result of College Experiences at the Institute of Hotel Management, Catering Technology and Applied Nutrition, aimed to find out whether College Experience had any influence on the values, attitudes and career commitment of students. The study conducted on the entire population of students undergoing the three-year diploma courses in Hotel Management and Catering Technology. The tool used for data-collection was a Likert-type attitude scale.

The main findings of the study were: (i) In the Second year of the three-year diploma course, the attitudes of the students to most of the traits listed tended to be less favourable. (ii) In the final year of the three-year study, the attitudes of the students to most of the traits tended to become more favourable. (iii) The attitudes of boys and girls to most of the traits did not reveal any significant differences except for empathy in which the girls showed a higher degree of favourableness in the second year. (iv) The attitudes of the students were found undergoing change during the three-year study period at the college.

10. Pendharkar (1977) in a study on Occupational Aspiration

of the students up to undergraduate level found:

- i. that the occupational aspirations, as compared to occupational expectations, were on the higher side;
- ii. approximately 54.5 per cent students aspired for occupations like that of doctor, teacher, lawyer, lecturer and engineer. In general, students aspired mostly for professional/technical occupations;
- iii. male students and not the female students were associated more with aspirations for high, non-manual occupations;
- iv. the level of occupation aspired for was strongly and positively related to the faculty to which the students belonged;
- v. the level of occupational aspiration was substantially associated with the level of the extent of knowledge of occupations and the idea of financial rewards.

11. In a study conducted by Chadha (1979) on some psychological and social factors as related to vocational aspirations of rural and urban high school children, found that;

- i. the urban boys aspired for engineering (48 per cent), protective (11 per cent) and health (10 per cent), occupations where as the rural boys aspired for teaching, welfare (43 per cent)

and engineering (36 per cent) vocations. Other fields were represented by less than 10 per cent each for both rural and urban samples;

- ii. vocations related to health were less popular as early 6 to 12 per cent boys and their fathers aspired for them.

12. In some of the conclusions made by Chand (1979) in his study on correlates of vocational maturity found that (i) positive and significant correlation existed between intelligence and vocational maturity of adolescents; (ii) there was a consistent increase in the mean performance of students from lower to higher grades on all the measures of vocational maturity; (iii) sex differences and rural/urban background differences were not significantly related to vocational maturity of the students.

13. Uchat (1979) in a study of the self-concept of preuniversity students enrolled in the Arts, Science and Commerce faculties found that; (i) the students from the arts faculty had the highest self-concept, while those from the science faculty possessed the lowest self-concept and those from the faculty of commerce ranked in the middle; (ii) the students from advanced class had higher perception of themselves as student,

opportunities for making friend and their community acceptance than the students belonging to backward class. However, social classes did not differ in their perceptions of teachers, examination system and social activities; (iii) sex was related to self-concept. The female students possessed higher self-concept than the male students; and (iv) college students had the poorest perception of the examination system.

14. Phadke and Shukla (1980) in a study of dropouts among the scheduled tribe college students in Vijara, Arts and Commerce college found that the percentage of drop-outs in the case of scheduled tribe students was 53.48 in total, 59.23 for the arts and 42.96 for the commerce faculty. In all, 62.42 per cent tribal male students and 60.46 per cent female students left studies. The drop-out rates among the non-tribal students, both male and female in the arts and the commerce faculties were lower than those among the tribal students. In arts faculty, there were more dropouts in Vijara college than in any other colleges affiliated to South Gujarat University. In the commerce faculty, the drop-out rates was the highest (44.77 per cent) in Vijara college as compared to the colleges situated in the tribal belt of South Gujarat.

15. Paul (1981), in a study of certain motivational aspects of goal behaviour of students in vocational and academic spectrums of the higher secondary pattern of schooling found that; the vocational spectrum students had significantly higher mean scores in goal aspiration, goal perception, goal locus of control and in scholastic achievement.

16. Kamalesh (1981) in a comparative study of self-concept, adjustment, interests and motivation among the scheduled caste and non-scheduled caste students, found that non-scheduled caste students from the urban area belonging to higher SES had brighter self-concept than the scheduled caste students belonging to lower SES. The level of adjustment among the urban scheduled caste students belonging to lower SES was below normal. The non-scheduled caste students, both in urban and rural areas did not have adjustment problem. The students showed great interest in science, medicine and technology.

17. In some of the findings of Kamat (1981) with regards to the comparison of the self-perception of backward class and non-backward class students and their SES, Vocational and Educational Aspirations, Educational Achievement and School Environment, found that; higher

social prestige was enjoyed by those occupations that required greater amount of training, skill and talent; vocations involving manual work got low social prestige values. The backward class and the non-backward class students differed in their educational aspirations, that of the former being below the graduate level and of the latter above the graduate level. The non-backward class students aspired for vocation which had higher social prestige values, whereas backward class students aspired for vocations which had comparatively low social prestige. Generally, white-collar jobs were chosen more than manual jobs.

18. In a study on problems faced by certain tribal groups in Trivandrum District in relation to provision and use of school facilities, by Joshi (1981), found that very few tribals taken for the study, were literate (27 per cent), the heads of tribal families felt that the teachers did not show favourable attitude towards the education of the tribal students. Educational concession given to the tribals were inadequate. Teachers perceived the tribal students as irregular in attending school. Only few were found to have adequate readiness for learning. They were found advanced in sports, games and arts even though they were backward in scholastics.

Poverty, lack of learning materials, language difficulty, lack of school facilities, inaccessibility of schools, ignorance of parents, task-master's influence, child labour and parent's compulsion were among the factors for dropping out of schools and for their non-entrance. And the facilities for students in their homes were inadequate.

19. Phadke and Shukla (1981) studied on the impact of higher education on the tribal students of Vijara college and revealed that, learning, particularly at the higher level, had linkage with jobs. The study revealed that instead of jobs hunting the tribal youths, the tribal youths were hunting for jobs. Due to interaction with the non-tribal students the thought process had started among the tribal students and developed a sense of responsibility and a sense of consciousness of justice and propriety among the tribal students.

Higher education had affected the self interest of tribal students. The selection of subjects, adding more qualification, and appearing at various competitive examinations were some of the instances not only of realising self interest but also of developing self confidence.

20. Sungoh (1987) conducted a survey of Educational and Vocational aspirations of Doordarshan-viewing Pre-University students in Shillong, found with regards to vocational aspirations that; (i) there was a significant difference in the vocational aspirations of the male and female viewers. The male viewers aspiration was higher than the female viewers; (ii) there was no significant difference in the vocational aspirations between the tribal and non-tribal viewers; (iii) there was a significant difference between Arts, Science and Commerce stream. Science having the highest aspiration, followed by Arts and then Commerce stream.

21. Shivarudrappa (1988) states that, vocationalisation has, as its main objective, the change of the educational system from one which was oriented to knowledge for knowledge sake and clerkdom in the administrative field, to a process which specially prepares children for a wide range of avenues in work life. The goal is to orient pupils to a range of work areas in technical, commercial, agricultural, paramedical and other areas and to determine the range in response to local employment needs. The key concept of the higher secondary stage has become a diversification of pupil's choice.

Further, he suggested that the variables such

as; (i) academic motivation (ii) self-esteem; (iii) self-identity; (iv) self-concept; (v) occupational aspiration; (vi) adjustment; and (vii) attitudes, should be kept in mind while selecting the students for vocational courses.

2.7 VOCATIONALISATION OF EDUCATION IN DIFFERENT STATES OF INDIA

A summary of state reports is presented in this section.

1. Andhra Pradesh: Vocationalisation was implemented in the state during the year 1979-80 in 23 junior colleges with 16 courses and 516 students. During 1983-84 the number rose to 107 junior colleges, 21 courses and 3310 students.

2. Assam: Vocationalisation of education has been started in the State during 1983-84 in 5 schools and 10 students in each school, though it was planned to introduce vocational courses in 19 schools initially. Due to rigidity of social structure vocationalisation is not easily acceptable in the society. Industrial development in the state is also very poor. While introducing vocational courses rural population and employment opportunities are taken into consideration.

3. **Chandigarh:** The 10+2+3 patterns of education has been introduced in the Union Territory of Chandigarh during 1983-84 from Class IX. The UT introduced mostly agrobased courses such as diary, poultry, piggery and auto-repairing.

4. **Dadara, Nagar Haveli:** The UT has plans to start 3 vocational courses - one each under agriculture, commerce, and technology. These courses were started in 1984-85.

5. **Delhi:** The vocational courses were started in the UT of Delhi during 1977-78 in 17 schools with engineering, commerce and home science based courses prescribed by the CBSE. In 1979 food preservation course under home science was discontinued. In collaboration with the All India Institute of Medical Sciences a course of Ophthalmic Technician was started during 1980-81. During 1982-83 engineering based courses were discontinued due to closure of technical schools. During 1983-84 136 passed out students from the vocational courses were registered as apprentice under the apprenticeship scheme of Ministry of education, Government of India. In Delhi the program is not getting popularity because of non-availability of vertical mobility and rigid social structure or non-acceptance by the society. At present

the scheme is being run in 15 schools with about 700 students. The main drawback is that the employers are not accepting the product of vocational courses.

6. Gujarat: Vocationalisation of education in the spirit of Kothari Commission was introduced in the state during the year 1982-83 in the area of technology, agriculture, commerce and home science. For providing vertical mobility to technical courses students admission in the 2nd year of polytechnic course is being permitted and commerce students are being admitted in B.Com.

7. Karnataka: Vocationalisation started in 1978 in selected junior colleges. Courses are selected on the basis of district vocational surveys. Courses like Sericulture and some in paramedical area have greater demand. The main difficulty is non-availability of instructional materials and text-books. Teachers appointed under the vocational scheme are on temporary basis, most of them are on a part-time basis. The full-time teachers are posing problems. Twenty meet the demand of trained teachers. It is necessary to organise short term teachers training programmes. The NCERT should take initiative in this direction.

8. Kerala: Vocationalisation of education has been introduced in the state during 1983-84 on a limited scale but not on an experimental basis parallel to the pre-degree education. The medium of instruction is English and the courses are not terminal in nature. Hence no bridge course need to be designed for vertical mobility. All the courses are of two years duration.

9. Maharashtra: Vocationalisation of education started in 1980. The scheme of vocationalisation is said to be bifurcated in nature. The courses have been introduced with the scope for vertical mobility. The course content has one language, 3 academic subjects and in lieu of second language and aone optional subject the students are allowed to offer vocational subjects which have two papers each of 100 marks. The main constraints of the scheme are lack of qualified teachers and instructional materials.

10. Pondicherry: Vocational education was introduced in 4 schools with 6 courses during 1978-79. In 1981 five more courses in technology were introduced along with a course in home science exclusively for girls. Theoretical instructions are being conducted in the school. The skill development/practical classes are being organised in collaboration with the nearby industry

such as textile Mills, Workshops, Bakery etc. For each course there is a permission for recruiting two teachers - one regular and the other on part-time basis.

11. Tamil Nadu: Tamil Nadu switched to the 10+2 pattern of education from the academic year 1978-79 in one thousand schools and simultaneously introduced vocational courses in 720 schools, 52 courses in 6 subject areas; agriculture, commerce, home science, technology, paramedical and miscellaneous.

2.8 VOCATIONALISATION OF EDUCATION ABROAD

Vocationalisation of Education in developed countries like, U.S.a., U.K., Japan, Denmark, Phillipines, New Zealand, Australia, Soviet Socialist Republic, Singapore, France, Germany, play an important role in the growth and development. But a reference to these countries have not been made, due to the fact that they cannot be compared with developing countries.

2.9 CONCLUSION

A number of Commissions and Committees, international and national in outlook, have emphasized the need for Vocational Education and Vocationalisation of Education; particularly at the secondary stage. A brief review

of the recommendations of the various reports was given in the first part of the chapter.

Studies pertaining to Vocational Education and Vocationalisation of Education have also been presented. Nagaraju (1971), Sharaduma (1972), Dharmadhikari (1973), Kulkarni (1975), Sali (1978), Goyal and Chopra (1979), Somaiah (1980), Lahi (1981), Srivastava and Srivastava (1983) stressed on the need and importance of work-experience in the school curriculum. Bajpai and Seshagiri Rao (1980), Savur (1980) and Savur (1982), indicated the scope of SUPW. Vasudevan and Feroze (1974) and Kumar (1975), showed the need and the requirement for introducing vocational guidance in the school level and plus two level. Dewasthalee (1978), Chikermane (1979), Desai and Patel (1981), Thimmaiah et.al (1981), Soundravalli (1984) and Bareh (1989), presented their findings and recommendations regarding Vocational Education and Vocationalisation of Education. Regarding vocational preferences, Rai (1971), Urmila (1976), Sahoo (1977), Yadav (1980) and Raina (1987) revealed the vocational preferences of high school and secondary students and also rural and urban students.

Bose, et.al (1970), Solanki (1976), Uchat (1979), Phadke and Shukla (1980), conducted studies on the interest,

problems, self-conceptual dropouts in the three discipline areas; i.e. Arts, Science and Commerce. Pendharkar (1977), Sunderarajan (1977) investigated on aspirations values, attitudes and career commitment of students. Chadha (1979) conducted a study on Psychological and social factors as related to vocational aspiration. Chand (1979) studied on the correlates of vocational maturity. Paul (1981) conducted a study on certain motivational aspects of goal behaviour. Kamalesh (1981) made a comparative study of self-concept, adjustment, interest and motivation among the scheduled caste and non-scheduled caste students. Kamat (1981) made a comparison of the self-perception of backward class and non-backward class students. Joshi (1981) studied on problems faced by certain tribal groups. And Shivardrappa (1988) studied on the impact of Vocationalisation of Education.

A brief description of state reports on Vocationalisation of Education in eleven states of India was presented. A brief mention was made regarding developed countries who have implemented vocationalisation of Education.

Our grand business is not to see what lies dimly at a distance, but to do what lies clearly at hand.

- Carlyle

CHAPTER - III
METHOD AND PROCEDURE

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3.0 INTRODUCTION

In Chapter two, the review of related literature was presented. The chapter highlighted the trend of Vocational Education and Vocationalisation of Education in India.

The present chapter deals with nine sections. Section 3.1, depicts the rationale of the study. Section 3.3, deals with the operational definitions of the terms used. Section 3.4, is devoted to the objectives of the study. Section 3.5, deals with the hypotheses of the study. Section 3.6, deals with the description of the sample. The tools used were described in Section 3.7. Section 3.8, deals with the construction of the attitude scale. Section 3.9, gives the procedure for final data collection. The statistical techniques used were explained in Section 3.10. Section 3.11, deals with the scope and limitation and conclusion was given in Section 3.12.

The design of a descriptive type research conducted by investigator is discussed with its methodology and procedure sequentially. The rationale for undertaking the study has also been included since it was evolved out of the contents of chapter one and two.

3.1 RATIONALE OF THE STUDY

"There is a great and crying need of providing Vocational Education to conserve and develop the resources of the nation, to promote a more productive and prosperous agriculture, to prevent the waste of home labour, to supplement apprenticeship; to increase the wage earning power of our productive workers; to meet the increasing demand for trained workmen; and to offset the increased cost of living. Vocational Education is, therefore, needed as a wise business investment of our nation, because our national prosperity and happiness are at stake and our position in the markets of the world cannot otherwise be maintained." (U.S. commission on National Aid to Vocational Education 1914).

During the British Period, the system of Education in India was geared to two major goals: (i) providing competent and loyal clerks for running the administration, (ii) and producing the individuals who were Indians in blood and colour but British in tastes and manners, to make them aware of the science and literature of the West.

The number of students who attend vocational courses at the secondary stage, in India, is probably the lowest in the world. For instance in West Germany about 70

per cent of the students at the secondary stage follow vocational courses which prepare them for life. In Japan the percentage is about 60. The position of the advanced and industrial countries are the same. But in India, only 2.5 per cent of the students enrolled at the secondary level of education follow vocational courses.

Vocationalisation of Education can therefore bridge the gap between the educational courses and the needs and requirements of industrialisation. Traditional and Educational courses have failed to prepare the right products for entry into the employment market. The courses are very much divorced from actual needs.

At present, in East Khasi Hills there is a rush for college education. More and more students are seeking admission in various colleges every year. But the colleges cannot accept every student who goes for admission. Whosoever passes their matriculation irrespective of the percentage of marks, wants to enter college, thereby wasting a lot of time and energy and a couple of years till realisation dawns that the effort will not lead them to any fruitful employment situation. Instead if vocational training were provided at the high school leaving stage adequately, perhaps there would have been

a good number of individuals who could be channelised into it.

The problem of unemployment is very serious in East Khasi Hills. At present there are more than 12,456 educated unemployed in the state. Unemployment among the educated must be seen as an integral part of the overall problem of unemployment and underemployment of the labour force. But even in the vast ocean of unemployed people, there are no right type of personnel doing right jobs. There is as much surplus of manpower as there is shortage. There are also a number of jobs going vacant due to shortage of right personnel.

The status of Vocational Education is still very poor in East Khasi Hills and in Meghalaya as a whole. Students in general opt for academic streams like arts and humanities. Mathematics and Science subjects to some extent can bring about diversity in various ways and means, to acquire skills and proficiency. Vocationalisation of Education can help the tribal students in a special way to enter an occupation suited to their abilities. The function of Vocationalisation of Education is to prepare persons for employment and enable them to progress in a Socially Useful Occupation.

There is lack of skilled manpower and competence.

This has also caused a lot of problems in the State. Meghalaya is rich in natural resources and many educated unemployed youth can be absorbed in different trades. Vocationalisation of Education can help in the development and conservation of these natural resources and many educated unemployed youth can be absorbed in different trades. Vocationalisation of Education can help in the development and conservation of these natural resources and it can also prevent the waste of human labour.

It has now been realised all over the country that education should relate to the life, needs and aspirations of the people. The Kothari Commission (1966) states, "The destiny of education is now being shaped in her classrooms. This, we believe, is no more rhetoric. In a world based on Science and Technology, it is education that determines the level of prosperity, welfare and security of the people. On the quality and number of persons coming out of our schools and colleges will depend our success in the great enterprise of national reconstruction whose principal objective is to raise the standard of living of our people.

There are three main aspects to bring about educational revolution such as; (i) internal transformation so as to relate to the life, needs and aspirations of the nation, (ii) qualitative improvement so that the

standard achieved are adequate, keep continually rising and, at least in a few sectors, become internationally comparable; and expansion of educational facilities broadly on the basis of manpower needs and with an accent on equalization of educational opportunities. The link between education and productivity can be forged through the development of different programmes which should receive high priority in the plans of educational reconstruction."

Education should play an effective role in preparing a strong work force for progress and development in all walks of life. The programmes of Vocational Education encompasses the vocational needs of 85 per cent of the persons who enter and work in the country's labour force. It may be recognized that a student's talent may lie in areas other than the academic. Artistic and creative talents must also be sought out. Hence a good number of youths need to be trained in skilled technical crafts and vocations in the areas of agriculture, commerce, industry, health and nutrition, defence and etc. The inclusion of such programmes in our secondary and higher secondary education will meet the middle level manpower needs in the world of work.

Education at different levels should be job-oriented

in a planned economy. The supply and demand for personnel at various levels must be controlled, directed and regulated by the Government and other agencies. Personnels for specific jobs have to be produced to avoid imbalances in the employment market. Right persons for right jobs should be the guiding principle for educational planning in the State. The wastage involved in the human and financial resources is a great deterrent to steady economic growth of the country.

Various Committees and Commissions appointed by the Government have made suggestions and given guidelines for Vocationalisation of Education. It is also clear that through Vocationalisation of Education it can pave a way towards solving the fundamental issues of dropouts, stagnation and wastage. For example, in 1987 there was college students agitation, nearly for a period of eight months in Shillong. One of the demands of the student leaders was to provide institutions in training in skill so that they could become employment worthy and productive.

Surveys and Research studies have been conducted in some states of the country like Gujarat (1977), Karnataka (1978-79), Andhra Pradesh (1979-80), Maharashtra (1979-80), Kerala (1984) and others revealed the weak points of vocational courses especially the relevance

and prospects after completing the course.

There is also a great need for manpower in every field, in order to meet the needs, Vocationalisation of Education can be made vibrant in tune with the aspirations and demands of the society. It should be made employment worthy with the ultimate aim in helping them to attempt for self-employment and to link education with productivity and development. It can provide broad-based occupational experience rather than training for a specified job, with a view to making many avenues as possible after termination of education.

In Shillong, there are a few voluntary agencies giving vocational training to students. Private institutions like Don Bosco Technical school has been existing and has rendered invaluable services to students. More vocational courses should be introduced in schools and colleges. The existing vocational training centre are insufficient to meet the needs and requirements of all the regular students and out-of-school youth. An attempt was made for introducing vocational courses at plus two stage, but upto today it has not been implemented, due to various problems and difficulties.

Attitudes can play an important role and their

studies give a new dimension to think over. Man's beliefs, feelings, responses and tendencies are the outcome of his attitudes. The very fact that attitudes play such a prominent and significant role in shaping social behaviour, speaks strongly for indispensability of attitudes in the analysis of social behaviour. The social actions of the individual reflect the attitudes which are the enduring systems of positive or negative evaluations, emotional feelings and pro and con action tendencies with respect to social objectives (Kretch et al 1962). Social behaviour of the individual is explicable in terms of emotional, motivational, perceptual and learning processes. However, it is unrealistic to describe, analyze and predict individual's social behaviour by reference to those fundamental processes considered singly. Behaviour is a function not only of immediately present stimuli and their momentary perceptions but of more enduring dispositions. It is, therefore, more desirable to work with higher order of enduring organisations of perceptual, motivational and emotional factors known as attitudes. A complete picture of man's attitudes towards various aspects of his social world will yield highly reliable prediction about his behaviour in various social situations.

In East Khasi Hills, the attitudes of the preuniversity students are not known. As the Government of India has lowered the voting to 18 years of age, most of the plus two students are fortunate in determining the destiny of the nation. This is true especially in a tribal belt like Shillong, where most of the college students are the first generation learners who have a decisive role in shaping their own future. Intergenerational mobility is helpful to elevate the tribal youth and their families to the main stream. Vocational Education can help in contributing social and national integration and then bringing the tribals into the main stream. The survey of attitudes of the prospective consumers can also help policy decisions and implementation of Vocationalisation of Education in the State.

Hence, the programme of Vocationalisation of Education should help in checking the unemployment problem and also check the dropouts. It may be reemphasized that an effective and efficient Vocationalisation of Education is a must. In bringing about the above, it should also be kept in mind that useful exploitation and rejuvenation of healthy traditional occupation that have declined, at present, is of great importance in a tribal area and emerging non-traditional occupations.

Hence, it was decided to undertake the present study.

3.2 STATEMENT OF THE PROBLEM

the, problem of the study was stated as follows:
"A Study of Vocational Education and Attitudes Towards Vocationalisation of Education in East Khasi Hills".
The problem was sub-divided into sub-groups as follows:

- i. What are the Vocational courses available in East Khasi Hills.
- ii. Which are the Vocational courses in great demand in East Khasi Hills?
- iii. What are the current attitudes of the plus two level students towards Vocationalisation of Education in East Khasi Hills? and
- iv. do they have positive attitudes towards Work Experience, Socially Useful Productive Work, Vocational Guidance, Vocational Education and Vocationalisation of Education?

The thrust of the present study is on the attitudes of plus two level students towards Vocationalisation of Education in East Khasi Hills, in the context of prevailing Vocational Education in the District.

3.3 OPERATIONAL DEFINITIONS OF THE TERMS USED

The following operational definitions were used

for the present study:

i. **Vocational Education:** Vocational education refers to undergoing training in a special skill to be pursued as a trade or profession. (Reader's Digest Great Illustrated Dictionary 1984).

ii. **Vocationalisation of Education:** Vocationalisation of education refers to provisions of trades or skills, terminal in nature for entering the world of work. (Patel 1987).

iii. **Attitudes:** It is the degree of positive or negative affect associated with some psychological object like any symbol, phrase, slogans, person, institution, ideal or ideas. (Thurstone 1946).

iv. **Work Experience (WE):** WE is defined as participation in productive work in school, in the home, in a workshop, on a farm, in a factory or in any other productive situation. (The Education Commission 1964-66).

v. **Socially Useful Productive Work (SUPW):** SUPW refers to a purposive meaningful manual work resulting into either goods or services which are useful to the community. (Ishwarbhai Patel Committee, 1977).

vi. **Vocational Guidance (VG):** VG is the process of

assisting the individual to choose an occupation, preparing for it, entering it, and progressing in it. (Encyclopedia Americana 1974).

vii. **Vocational Environment (VEnt):** VEnt. refers to specific natural, social, and man-made environment that are likely to be found as social determinants associated with the development of different vocations and related human resources.

3.4 THE OBJECTIVES

The present descriptive type research was designed to:

- i. find out the nature and extent of educated unemployment in East Khasi Hills.
- ii. study the present status of Vocational Education existing in various institutions in East Khasi Hills;
- iii. measure the current attitudes of preuniversity students in East Khasi Hills towards Vocationalisation of education by constructing an attitude scale;
- iv. identify the problems of Vocationalisation of Education in East Khasi Hills; and
- v. suggest measures for effective implementation of Vocationalisation of Education in East Khasi Hills.

3.5 THE NULL HYPOTHESES

The studies mentioned in chapter two has not given a clear-cut direction about the attitudes of preuniversity students towards Vocationalisation of Education. Moreover most of those studies were conducted in an entirely different environment with different population and sample, and specific tools suitable to them. Hence those findings are not at all directly relevant in a tribal area like Shillong. Since it was found difficult to generate positive hypotheses, it was decided to frame null hypotheses for testing in the present study.

Garrett (1966 p.247) states that, "A null hypothesis is ordinarily more useful than other hypotheses because it is exact. Hypotheses other than null can, to be sure, be stated exactly. But it is difficult to set up such precise expectations in many experiments. For this reason it is usually advisable to test against a null hypothesis, rather than some other, if this can be done."

The following null hypotheses were formulated for testing the attitudes of the different groups of preuniversity students towards Vocationalisation of Education:

- i. There is no significant difference between the attitude of preuniversity male and female students towards Vocationalisation of Education.
- ii. There is no significant difference between the attitudes of preuniversity tribal and nontribal students towards Vocationalisation of Education.
- iii. There is no significant difference between the attitudes of preuniversity arts and commerce students towards Vocationalisation of Education.
- iv. There is no significant difference between the attitudes of preuniversity arts and science students towards Vocationalisation of Education.
- v. There is no significant difference between the attitudes of preuniversity commerce and science students towards Vocationalisation of Education.
- vi. There is no significant difference between the attitudes of preuniversity urban and rural students towards Vocationalisation of Education.
- vii. No significant difference in the attitudes of preuniversity students exists between WE and SUPW.
- viii. No significant difference in the attitudes of preuniversity students exists between WE and VG.
- ix. No significant difference in the attitudes of preuniversity students exists between WE and VE.
- x. No significant difference in the attitudes of preuniversity students exists between WE and VEnt.

- xi. No significant difference in the attitudes of preuniversity students exists between SUPW and VG.
- xii.No significant difference in the attitudes of preuniversity students exists between SUPW and VE.
- xiii.No significant difference in the attitudes of preuniversity students exists between SUPW and VEnt.
- xiv. No significant difference in the attitudes of preuniversity students exists VG and VE.
- xv. No significant difference in the attitudes of preuniversity students exists VG and VEnt.
- xvi.No significant difference in the attitudes of preuniversity students exists between VE and VEnt.

The null hypotheses were tested and 0.05 was fixed as the level for rejecting or retaining any of them. (vide Table D. Garrett 1966, pp.461).

3.6 THE SAMPLE

The sample of the study was divided into two sections. Section A includes the sample for collecting information regarding Vocational Education and Section B includes the sample for finding out the attitudes of preuniversity students towards Vocationalisation of Education.

A. Vocational Education

In order to find out the nature and extent of the educated unemployed in East Khasi Hills, the data was collected (from the secondary sources) from the employment exchange office.

To study the present status of Vocational Education in East Khasi Hills, collection of data was done from secondary sources and primary sources as well.

1. The secondary sources were collected from the following: (i) District Plan Document, (ii) District Employment Exchange Report, (iii) Statistical Handbook, Meghalaya 1987, (iv) Agriculture Survey Report.

2. The primary sources were collected from the following persons below: (i) District Employment Officer, (ii) District Agriculture Officer, (iii) District Forest Officer, (iv) Director of Employment and Craftsmen Training, Meghalaya, Shillong, (v) District Statistical Research Officer, (vi) Manpower Planning Officer, (vii) District Planning Officer, (viii) Social Workers, (ix) Principals and Teachers of the ten colleges taken for the sample. There were ten Principals and teachers. A teacher with know-how and recommended by the principal as a representative of the college concerned was included from each

college. Hence purposive sampling technique was used.

B. Vocationalisation of Education

To find out the attitudes of preuniversity students towards Vocationalisation of Education, the data were collected from various colleges of East Khasi Hills.

1. The Population

The population of the study consisted of 4100 preuniversity students in 14 colleges of East Khasi Hills. The number of males were 2255 (55 per cent) and females were 1845 (45 per cent). Tribals were 2870 (70 per cent) and non-tribals 1230 (30 per cent). The names, types, location, courses of the colleges, along with the total population are given in Appendix A.

2. The Sample

The sample of the study was divided into three sub-sections as follows:

- i. Sample for Pre-tryout Stage
- ii. Sample for Tryout Stage
- iii. Sample for Final Stage

i. Sample for Pre-tryout Stage

The sample take for the Pre-tryout Stage of the

first draft of the attitude scale, consisted of 100 (males 55 and females 45) Preuniversity students of Synod College Shillong during the month of March, 1989. Random Sampling Technique was used for selecting them.

ii. Sample for Tryout Stage

The initial sample used for the Tryout Stage of the second draft of the attitude scale consisted of 400 second year Preuniversity students (1988-89). Due to the incompleteness of 30 response sheets, in filling up all the items, they were rejected. And responses of the final sample of 370 preuniversity students were used for analysis. (vide Table 3.1)

Table 3.1 indicated that the sample for tryout stage taken from three colleges in the urban areas, giving due representation to male, female and co-educational colleges. Students belonging to different streams were also taken for the tryout stage. The number of males taken was 203 (54.86 per cent) and females was 167 (45.13 per cent), out of the total 370.

TABLE 3.1

Description of Sample for Tryout

Colleges	Types of Colleges	Location	Course	Male			Female			Grand Total		
				Tribal	Non-Tribal	Total	Tribal	Non-Tribal	Total	Tribal	Non-Tribal	Total
St. Edmunds College	Male	Urban	Arts	70	10	80	-	-	-	70	10	80
			Science	20	11	31	-	-	-	20	11	31
Lady Keane Girls College	Female	Urban	Arts	-	-	-	50	20	70	60	20	70
			Science	-	-	-	31	11	42	31	11	42
Shillong	Co-ed	Urban	Arts	27	17	44	23	15	38	50	32	82
			Science	12	10	22	5	3	8	17	13	30
			Commerce	20	6	26	6	3	9	26	9	35
Total N				149	54	203	115	52	167	264	106	370
%				40.27	14.29	54.86	31.08	14.05	45.13	71.35	28.65	100.00

iii. Sample for Final Stage

Out of the total population of preuniversity students in East Khasi Hills a sample of 1100 preuniversity students were taken for the present study from ten colleges in East Khasi Hills. A rejection of 100 sheets was done due to the incompleteness of the items. And responses of 1000 preuniversity students were used for analyses.

Due representation was given to each strata in proportion to the population, such as, sex (male and female), tribal and nontribal, location (rural and urban areas), streams (arts, science and commerce), co-educational and non-educational colleges. (vide Table 3.2).

Table 3.2 shows the different aspects of the Final Sample. Males were 550 (55 per cent) females were 450 (45 per cent), and tribals were 700 (70 per cent) and nontribals were 300 (30 per cent). The urban students were 933 (93.30 per cent) and the rural students were 67 (6.7 per cent). The total number of all the students added together is 1000. The description of the sample and population is also given in the following page. (vide Table 3.3).

TABLE 3.2
Description of the Sample for Final Stage

College	Type of college	Location	Course	Male			Female			Grand Total		
				Tribal	Non-Tribal	Total	Tribal	Non-Tribal	Total	Tribal	Non-Tribal	Total
St. Edmunds College	Male	Urban	Arts	93	8	101	-	-	-	93	8	101
			Science	57	11	68	-	-	-	57	11	68
St. Anthony College	Male	Urban	Arts	50	18	68	-	-	-	50	18	68
			Science	20	17	37	-	-	-	20	17	37
			Commerce	12	6	18	-	-	-	12	6	18
Lady Keane Girls College	Female	Urban	Arts	-	-	-	154	28	182	154	28	182
			Science	-	-	-	40	20	60	40	20	60
Union Christian College	Co-ed Vo-cational	Rural	Arts	18	2	20	20	17	37	38	19	57
Ri Bhoi College	Co-ed	Rural	Arts	6	2	8	2	-	2	8	2	10
Synod College	Co-ed	Urban	Arts	30	20	50	30	19	43	60	39	99
			Science	8	-	8	2	-	2	10	-	10
Raid Laban College	Co-ed	Urban	Arts	7	3	10	4	4	8	11	7	18
			Science	7	6	13	2	5	7	9	11	20
			Commerce	8	7	15	-	1	1	8	8	16
Shillong College	Co-ed	Urban	Arts	3	2	5	10	25	35	13	27	40
			Science	10	6	16	3	2	5	13	8	21
			Commerce	7	4	11	3	4	7	10	8	18
Sankardev College	Co-ed	Urban	Arts	16	30	46	20	9	29	36	39	75
			Science	8	10	18	7	9	16	15	19	34
Shillong Commerce College	Co-ed	Urban	Commerce	35	3	38	8	2	10	43	5	48
Total:		N		395	155	550	305	145	450	700	300	1000
		%		39.50	15.50	55.00	30.50	14.50	45.00	70.00	30.00	100.00

TABLE 3.3
Description of Sample and Population

Courses											
			Tribal	Non-Tribal	Total	Tribal	Non-Tribal	Total	Tribal	Non-Tribal	Total
Arts	Population	N	983	309	1292	960	413	1373	1943	722	2665
		%	23.97	7.54	31.51	23.41	10.07	33.49	47.39	17.61	65.00
	Sample	N	223	85	308	240	102	342	463	187	650
		%	22.30	8.50	30.80	24.00	10.20	34.20	46.30	18.70	65.00
Science	Population	N	398	241	639	227	159	386	625	400	1025
		%	9.71	5.88	15.59	5.53	3.88	9.41	15.24	9.76	25.00
	Sample	N	110	50	160	54	36	90	164	86	250
		%	11.0	5.00	16.00	5.40	3.60	9.00	16.40	8.6	25.00
Commerce	Population	N	238	86	325	64	22	86	302	108	410
		%	5.80	2.10	7.90	1.56	0.54	2.10	7.37	2.63	10.00
	Sample	N	62	20	82	11	7	18	73	27	100
		%	6.20	2.00	8.20	1.10	7.00	1.80	7.30	2.70	10.00
Total	Population	N	1619	636	2255	1251	594	1845	2870	1230	4100
		%	39.49	15.51	55.00	30.50	14.49	45.00	70.00	30.00	100.00
	Sample	N	395	155	550	305	145	450	700	300	1000
		%	39.50	15.50	55.00	30.50	14.50	45.00	70.00	30.00	100.00

3.7 THE TOOLS USED

The following tools were used for the study:

I. For finding out the data related to Vocational Education, only secondary data were collected from various sources like District Census Handbook, District Statistical Digest and Handbook of the State Bureau of Economics and Statistics, Employment Exchange Data, Agriculture Census, and the Industrial Development Potentialities of the District.

II. Data regarding attitudes towards Vocationalisation of Education was obtained by the administration of an attitude scale, which was constructed by the Investigator. The procedure involved in this are described below.

Lindgren (1969) states that "Attitudes cannot be directly observed but must be inferred from behaviour, either from observation of an individual's responses to objects, persons, and other events or from his evaluative statements and other verbal expression." The degree of an individual's attitude can vary from extremely positive to extremely negative. Instruments for measuring attitudes are commonly classified according to the types of responses subjects make to a statement referring to an object. One way of testing a person's attitude is through observation of behaviour, but this may not always

be possible. Another means is verbally, i.e. through interviews, but this can again be influenced by the situation and circumstances under which a person is placed. Scales and questionnaires are another method for obtaining the attitude of the individual. One advantage of this scale would be that a great deal of information would be collected in a minimum duration of time and the instruments used could be defined and elaborated. This has been the reason why social psychologists used this approach more than others. The result obtained from these scales would be easier to analyse statistically.

Measurement of Attitude

Some attitudes are enduring organisations of perceptual, motivational and emotional processes. They cannot be measured directly. But they may be measured indirectly in a variety of ways by studying the behaviour of the individual's concerned.

One of the most widely used methods of measuring an attitude is by making use of an attitude scale. In the scaling method, the individual has to react to a series of verbal expressions through endorsements or rejections of a set of carefully standardised items or propositions. The total pattern of one's reactions to

the different items reveals one's attitude. The items in a scale must

- i. be psychologically related to the attitude being measured
- ii. discriminate sharply among people and
- iii. be sufficiently numerous so as to cancel random and accidental imperfections.

1. Thurstones Technique

In Thurstone's technique of construction of attitude scales, also, known as the method of equal appearing intervals, a large number of statements regarding the attitude objects are collected from several groups of people and also by reviewing relevant literature. These statements are then edited. They are classified by a group of judges on an eleven-point scale. This can be done by their placing each statement in one of the eleven piles in accordance with the degree of favourableness or unfavourableness of the attitude, they in their judgement represent. The scale value of a statement is the median of the values assigned by the judges to it. Each statement is analysed for its consistency with reference measured to the attitude measured by the entire scale. For example, in an attitude scale to determine one's

attitude towards Vocationalisation of Education, if it is found that many persons having a favourable attitude check a statement that is apparently unfavourable, then that item is discarded for its irrelevancy. Ambiguous statements are also discarded. Ambiguity of an item is determined by the variability of the spread of positions assigned to it by the different judges. The quartile deviation of the values assigned is taken as the index of ambiguity of statements. Statements yielding high quartile deviations are eliminated from the final scale. An individual taking the attitude test checks those statements with which he agrees. His score is the median scale value of the items he has endorsed.

2. Likert Method

Likert's method, known as the method of "Summated ratings" does not require the classification of items by a group of judges. Items are selected only on the basis of responses of the subjects, to whom they are administered in the course of developing the scale. The Likert type scale calls for a graded response to each statement. The respondent reacts to each statement on a five-point scale ranging from 'strong' agreement to 'strong' disagreement. The points are usually devoted by 'strongly agree', 'agree', 'undecided', 'disagree' and

'strongly disagree'. The different points on a scale are assigned arbitrary weights - for example, 4, 3, 2, 1 and 0 in the order of 'strongly agree' response to 'strongly disagree' response for favourable statements. The scoring key is reversed for unfavourable statements - in the example given above, the 'strongly disagree' response is given the weight of 4 and 'strongly agree' response a weight of 0. Items not correlated well with the total scores on the scales are weeded out in order to make the scale reliable. The total scores for an individual can be obtained by adding his or her scores for the individual items.

3. Gutman's Technique

Gutman developed what is called the 'Scalogram Analysis' to measure one's attitude. He constructed his scale to measure the morale of the American Soldiers during the second world war. The main principles governing the construction of Gutman's scale is that of homogeneity. He believed that a true scale which is capable of legitimate measurement exists only when homogeneity is complete. Each item shall measure only one factor and the scale shall be univocal. The criterion in this type of scaling is that when an individual endorsed a more extreme item, he should endorse all the less extreme items too.

The major steps in the construction of the Gutman's scalogram are as follows:

1. The first step is that the investigator hypothesized a variable which he thinks exist and is also worthy of measurement.
2. The second step is to collect a large number of descriptive statements to indicate the degree of this quality. This is known as 'universe of items'. In the actual test only twenty or less than twenty items are selected. For each statement there are two or more alternative responses. The statements can be administered to a group of examinees who should respond to all the items. On a priori basis a key is prepared to obtain the experimental score. On the basis of this experimental score the examinees are placed in the rank order and they are listed in a column. The item responses of the examinees are placed in each row of the matrix. The responses to each item are listed by columns in an order in relation to the total score. Then the relationship of the items is studied to find out whether they are behaving as in a homogeneous test. Then the number of reversals of responses which deviate from perfect correlation are summed up for all items. The index of reproducibility is given by deducting the percentage of error from 100. If the value is less than 90 per cent, then a scale does not exist in these scoring conditions. If the value is between

85 and 90 per cent a quasi-scale exists. When the index of reproducibility does not indicate a scale, it is improved by the combination of response categories to an item. When the combinations are made, a new scoring key is developed to obtain a revised total score and the procedures are repeated with these new categories and scores.

3.8 CONSTRUCTION OF THE ATTITUDE SCALE ON VOCATIONALISATION OF EDUCATION (ASVE)

Most of the scales to measure attitudes are based on either the Thurstone or the Likert Method of scale construction. The Likert is generally preferred for constructing attitude scales for the reasons given below:

- i. It is less laborious and time-consuming than the Thurstone technique.
- ii. It does not require the opinions of a group of judges as to the degree of favourableness or unfavourableness each statement expresses.
- iii. It is more reliable.
- iv. As to the amount of information got, the advantage seems to lie with the Likert approach which gets a five-point judgement on each item rather than the mere acceptance or rejection of the Thurstone item.
- v. The Likert-type score is easy to score.

Therefore, for the reasons stated above, it was decided to construct a Likert-type scale in the present study.

Steps in the Construction of the Attitude Scale

After review of literature and discussion with the experts, the first step in the preparation of the Likert Type scale was to identify the components of Vocationalisation of Education. The identified components were Work-Experience (WE), Socially Useful Productive Work (SUPW), Vocational Education (VE), Vocational Guidance (VG) and Vocational Environment (VEnt.).

The next step for the construction of the attitude statements on Vocationalisation of Education, was to obtain items that represented the five components identified. Some items were written by the investigator, additional statements were obtained from different sources such as books, magazines, articles, newspaper and related literatures. At the end, a total number of one hundred and fifty statements were collected.

The third step involved the modification of the items with regard to the structure, language and format. A number of thirty statements were written under each area. There were fifteen favourable and fifteen unfavourable statements in each of the five areas.

The next step in the construction of the scale was that these 150 statements were typed and given to

experts in the Department of Education for their comments and suggestions for modification of the items. They were requested to check the structure, format, content and language of each statement. After collecting the sheets from the experts, the statements were modified according to the feedback given by them. Statements which were left as they were, and statements which were less relevant were rejected. A number of forty items were rejected.

Again, 110 statements were edited after modification and these statements were again distributed equally where each component had twenty two statements, having eleven favourable and eleven unfavourable statements. The distribution of the statements can be seen in Table 3.4.

TABLE 3.4
Distribution of Statements to Experts

Components	Favou- rable	Unfavou- rable	Total
1. Work Experience(WE)	11	11	22
2. Socially Useful Productive Work (SUPW)	11	11	22
3. Vocational Guidance (VG)	11	11	22
4. Vocational Education (VE)	11	11	22
5. Vocational Environment (VEnt.)	11	11	22
Total	55	55	110

The one hundred and ten statements were again distributed to five experts in the Department of Education. Their feedback and suggestions were again utilised. A number of ten statements were rejected, and a number of 100 were retained.

One hundred statements were thoroughly scrutinized and modified using the suggestions given by Likert (1932) and others by avoiding statements that:

- i. refer to the past rather than to the present;
- ii. are factual or capable of being interpreted as factual;
- iii. may be interpreted in more than one way;
- iv. are irrelevant to the psychological object under consideration;
- v. are likely to be endorsed by almost everyone or by almost no one;
- vi. do not cover the entire range of the affective scale of interest;
- vii. exceeds 20 words;
- viii. contain more than one thought;
- ix. are not simple, clear and direct;
- x. contain universals such as 'all', 'always', 'none' and 'never';
- xi. contains 'only', 'just', 'merely' and other similar nature;

- xii. have the use of words which may not be understood by those who are given the complete scale; and
- xiii. have the use of double negatives.

Pre-Tryout Drafts Attitude Scale

After one hundred statements were selected out of the one hundred and ten statements, the pre-tryout scale was then prepared for administration. The scale was administered in Synod College, Shillong.

The sample for administering the pre-tryout attitude scale was 100 pre-university students, 55 were males and 45 were females.

For the administration of the scale, the statements were read and explained to all the participants. Instructions were given and proper rapport was developed with the students. If any difficulty arose, the students were requested to ask the investigator. They were then asked to respond to the statement. The attitude scale was then collected after the students had responded to all the statements.

Scoring was done to all the responses of the students to the statements. The total score of each student was found out by using Likert's method of summated ratings. The score for favourable items were rated as 4, 3, 2, 1 and 0, and for unfavourable items they were rated as

0, 1, 2, 3 and 4. The sum of the items represented the individuals total score.

In the selection of the statements, all the responses were scored and analysed for the purpose of eliminating, editing and modifying statements which were not suitable. Based upon the observation and findings in the administration the scale to the students, twenty statements were dropped, and 80 statements were retained.

The 100 items which were retained were then rated on a 5 point scale ranging from 'Strongly agree', 'agree', 'undecided', 'disagree', and 'strongly disagree'. Table 3.5 shows the distribution of the items on the five components, chosen for pre-tryout stage.

TABLE 3.5
Distribution of Statements for Pre-Tryout

Components	Favour- able	Unfavour- able	Total
1. Work Experience	10	10	20
2. Socially Useful Productive Work	10	10	20
3. Vocational Guidance	10	10	20
4. Vocational Education	10	10	20
5. Vocational Environment	10	10	20
Total	50	50	100

As seen above, the items were distributed equally for favourable and unfavourable items in all the five components. These 100 items were then cyclostyled. They were then kept ready of pre-tryout administration.

Tryout of Draft Attitude Scale

The statements for the tryout stage were then prepared. Out of 100 statements, 80 statements were chosen, keeping in mind the equality of statements (both favourable and unfavourable) in each component. The distribution is shown in Table 3.6.

TABLE 3.6
Distribution of Statements for Tryout Stage

Components	Favou- rable	Unfavou rable	Total
Work Experience	8	8	16
Socially Useful Productive Work	8	8	16
Vocational Guidance	8	8	16
Vocational Education	8	8	16
Vocational Environment	8	8	16
Total	40	40	80

For the draft attitude scale for tryout, the statements were printed and kept ready for administration for the tryout stage. (Appendix B).

The main objective of the tryout stage were:

- i. to find out adequate items for the final stage;
- ii. to find out statistical evidence about the test as a whole about the characteristics of each item;
- iii. to find out poor and irrelevant items;
- iv. estimating the discriminating power of each item;
- v. determining the critical ratio for each item; and
- vi. incorporate needed improvement in the process of scale administration.

The sample of the tryout stage was already described (vide Table 3.1).

The list of eighty items of the draft attitude scale was administered to the Preuniversity students. The procedure carried out during the pre-tryout stage was follows.

The scoring of the respond sheets of 370 preuniversity students were properly screened and checked. Scoring of the statements was again done as suggested by Likert (1932), for favourable items, the 'strongly agree' response was given a weight to 4, the 'agree' response a weight of 3, the 'undecided' response a weighty of 2, the 'disagree' response a weight of 1 and the 'strongly disagree' response a weight of 0. For unfavourable statements,

the scoring system is reversed with the 'strongly disagree' response being given the weight of four and the 'strongly agree' response the zero weight. For each student a total score was obtained by summing the scores of individual statements.

The 't' value of each statement was found out by analysing the responses of the top 27 per cent of the subjects whose range was 240-263 and also from the 27 per cent of the subjects with the lowest score whose range was 70-190. These two groups formed the criterion groups. The critical ratio of each item was found out by using Formula 20 (Edwards 1957). The level of significance taken for selecting the statements was at 0.05 level.

The statements, both favourable and unfavourable were arranged in the descending order on the basis of discriminating power and critical ratio under each component. Then five statements from the top under each component with equal importance for favourable statements and unfavourable statements were selected for the attitude scale towards Vocationalisation of Education. After finalising the statements for the scale they were rearranged in such a way that statements under one component are distributed after every sixth statement. (vide Table 3.7).

TABLE 3.7
High Score and Low Score, ID & CR of Each Item (Try-Out)

Item No.	High-Score Total	Low-Score Total	I/D	CR	Remarks
1	2	3	4	5	6
+ 1	298	275	0.23	1.98	
2	294	255	0.39	2.71	
+ 3	297	255	0.39	3.37	
4	215	205	0.10	0.56	
+ 5	310	282	0.28	2.09	
6	226	201	0.25	1.56	
+ 7	342	289	0.53	3.79	
8	274	234	0.40	2.93	
+ 9	302	244	0.58	3.89	*
10	237	182	0.55	3.70	
+11	327	286	0.41	3.10	
12	222	207	0.15	0.86	
+13	270	216	0.54	3.24	*
14	265	191	0.74	4.66	
+15	279	237	0.42	2.80	
16	237	191	0.40	2.56	
+17	257	221	0.36	2.20	
18	324	249	0.75	4.54	*
+19	227	220	0.07	0.42	
20	278	216	0.62	4.18	
+21	303	261	0.42	2.61	
22	220	197	0.23	1.45	
+23	234	218	0.16	1.04	
24	268	232	0.36	2.39	
+25	316	288	0.28	2.13	
26	271	217	0.54	3.57	
+27	241	223	0.18	1.11	

Contd..

1	2	3	4	5	6
28	225	207	0.18	1.25	
+29	252	239	0.13	0.77	
30	226	198	0.28	1.73	
+31	293	246	0.47	3.17	
32	223	207	0.16	0.89	
+33	237	231	0.47	2.69	
34	135	170	-0.35	-1.05	
+35	174	210	-0.36	-2.19	
36	277	220	0.57	3.75	
+37	274	239	0.35	2.57	
38	171	162	0.09	0.56	
+39	241	196	0.45	3.18	
40	221	205	0.16	1.00	
+41	274	232	0.42	2.80	
42	231	208	0.23	1.45	
+43	260-	219	0.41	2.91	
44	236	189	0.47	2.85	*
+45	300	226	0.74	4.67	*
46	248	173	0.75	4.13	*
+47	286	219	0.67	4.38	*
48	252	215	0.37	2.48	
+49	252	216	0.36	2.48	
50	254	202	0.52	3.19	
+51	285	211	0.74	4.25	*
52	242	194	0.48	3.07	*
+53	295	207	0.88	5.25	*
54	290	214	0.76	5.19	*
+55	313	241	0.72	4.62	*
56	283	204	0.79	54.09	*
+57	277	226	0.51	3.37	

Contd...

1	2	3	4	5	6
58	240	210	0.30	1.98	
+59	259	218	0.41	2.62	
60	184	179	0.05	0.33	
+61	239	188	0.51	3.09	*
62	249	189	0.60	3.80	*
+63	253	207	0.46	2.89	
64	264	198	0.66	4.13	*
+65	257	256	0.01	0.06	
66	260	192	0.68	4.11	
+67	300	229	0.71	4.66	*
68	267	204	0.63	4.05	*
+69	290	241	0.49	3.42	*
70	286	227	0.59	3.78	*
+71	296	246	0.50	3.55	*
72	222	182	0.40	2.77	*
+73	288	238	0.50	3.11	*
74	178	150	0.28	1.83	
+75	268	203	0.65	3.82	*
76	247	197	0.50	3.14	
+77	298	233	0.65	4.29	
78	233	191	0.42	3.04	
+79	254	220	0.34	2.33	
80	164	152	0.12	0.77	

+ = Favourable Items
blank = Unfavourable Items
* = Items selected for final stage.

To find out the 't' value or CR. formula 21 by Edwards (1957) was used.

Selection of Items: In the method of summated ratings by Likert (1932), what is desired in a set of 20 to 25 items that will differentiate between the high and low groups. These items are selected by finding out the 't' value for each item. A selection of 25 items with the largest 't' values were taken for the final scale.

Out of 80 items, 25 items were retained viz. 9, 13, 18, 20, 44, 45, 46, 47, 51, 52, 53, 54, 55, 56, 61, 62, 64, 67, 68, 69, 70, 71, 72, 73 and 75. The rest i.e. 55 items were rejected. (Appendix C).

Thirteen items were favourable and twelve items were unfavourable Table 3.8 shows the distribution of items.

TABLE 3.8
Distribution of Items for Final stage

Components	Favourable	Unfavourable	Total
1. Work Experience	3	2	5
2. Socially Useful Productive Work	2	3	5
3. Vocational Guidance	3	2	5
4. Vocational Education	2	3	5
5. Vocational Environment	3	2	5

Table 3.9 shows the list of all the 25 items with their I/D and CR.

TABLE 3.9
List of twenty five statements

Sl. No.	Statement No	Discriminating Power	Critical Ratio
1	9	0.58	3.89
2	13	0.54	3.24
3	18	0.75	4.54
4	20	0.62	4.18
5	44	0.47	2.85
6	45	0.74	4.67
7	46	0.75	4.13
8	47	0.67	4.38
9	51	0.74	4.25
10	52	0.48	3.07
11	53	0.88	5.25
12	54	0.76	5.19
13	55	0.72	4.62
14	56	0.79	5.09
15	61	0.51	3.09
16	62	0.60	3.80
17	64	0.66	4.13
18	67	0.71	4.66
19	68	0.63	4.05
20	69	0.49	3.42
21	70	0.59	3.78
22	71	0.50	3.55
23	72	0.40	2.77
24	73	0.50	3.11
25	75	0.65	3.82

.05 level of significance was taken for retaining the items.

Final Attitude Scale

The final attitude scale was printed and prepared. Before the final administration of the attitude scale towards Vocationalisation of Education, the Reliability, Validity and the Percentile norms of the attitude scale was found out.

Reliability

Freeman (1965) defines the term reliability as follows, "the term reliability has two closely related but somewhat different connotations in psychological testing. First, it refers to the extent to which a test is internally consistent, that is, consistency of results obtained throughout the test when administered once. In other words, how accurately is the test measuring at a particular time? Second, reliability refers to the extent to which a measuring device yields consistent results upon testing and retesting. That is, how dependable is it for predictive purposes."

Repeated measures of an attribute, characteristics or a trait by a test may produce different results. These may be due to either a real change in behaviour or to the unreliability of the test itself. If the variation in the results is due to a real change in behaviour, the reliability of the test is not doubtful. However,

if the variation is due to the test itself, then the test is either internally inconsistent or it can have little predictive value.

There are four procedures in common use for assessing the reliability of a test. They include: (1) the test-retest method, (2) the alternate or parallel form method, (3) the split-half method and (4) the rational equivalence method.

For the present study the split-half method and test-retest method were used to find the reliability of the attitude scores.

For the split-half method to find the reliability of the attitude scale, the Spearman's Brown Prophecy Formula 79 was used.

TABLE 3.10
Split-half Reliability fo the Final Attitude Scale

Items	N	M	SD	r	Reliability
Odd Scores	100	31.95	8.4	.79	.88
Even Scores	100	31.35	8.2		

Table 3.10 indicates that there was a high correlation between the odd scores and even scores. The reliability was found to be .88. Hence the result shows a high reliability between the odd scores and even scores.

For the test-retest method the scale was administered and readministered to 100 Preuniversity Students of Synod College. The time interval taken was eight weeks. Table 3.11 shows the reliability coefficient of the test-retest method using Kuder Richardson Formula (21).

TABLE 3.11
Result of Test-Retest Reliability

Tests	N	M	SD	tt	't' value
Test I	100	59.85	16.75	.92	.19
Test II	100	60.30	16.35		

Table 3.11 shows that there was no significant difference between Test I and Test II. The reliability was found to be .92. Hence the attitude scale was found highly reliable.

Inter-correlation Co-efficient of the Sub Scales

The correlation of the sub scales was found out by using the Product Moment Method. The results found out is given in Table 3.12.

TABLE 3.12

Correlation Coefficient Between Sub-Scale Scores with the Total Scores

Name of the Subscale	Correlation
1. Work Experience	.58
2. Socially Useful Productive Work	.86
3. Vocational Guidance	.89
4. Vocational Education	.74
5. Vocational Environment	.74

Validity

The test, as a data collection tool, must produce information that is not only relevant but free from systematic errors; that is, it must produce valid information. In general, a test is valid if it measures what it claims to measure. A test, however, does not possess universal and eternal validity. It may be valid for use in one situation, but invalid if used in another.

Cronbach (1964) says that a test which helps in making one decision in a particular research situation may not have values at all for another.

There are different types of validity including: (1) context validity, (2) criterion-related validity, and (3) construct validity.

The present study had content validity and criterion related validity. The attitude scale for final administration contains a good number of twenty five statements representing the five different components of Vocationalisation of Education - viz. WE, SUPW, VG, VE and VEnt. It may be recalled that the original scale consisted of 100 statements. Thus it may reasonably be claimed that the attitude scale used had content validity.

A summary of the tools used in th study is given in Table 3.4.

TABLE 3.13
Tools Used and Variables Derived

Sl. No.	Tools Used	Variables
1.	Interview (unstructured)	Collecting information for 1. Unemployment 2. Problems 3. Status of Vocational Education
2.	Personal Information Blank	1. Male and Female 2. Tribal and Nontribal 3. Arts, Science and Commerce Streams 4. Rural and Urban Areas 5. Co-educational College and Non-educational college. 6. No. of colleges.
3.	Attitude Scale	1. WE 2. SUPW 3. VG 4. VE 5. VEnt. 6. ATVE (Attitude Towards Vocationalisation of Education)

Percentile Norms

The percentile norm for the attitudes of 1000 pre-university students towards Vocationalisation of Education was calculated.

TABLE 3.14
Percentile norms for total Attitude Scope
 (N = 1000)

Percentile	Total Score
P100	94.50
P90	74.18
P80	70.95
P70	68.10
P60	65.56
P50	63.08
P40	60.65
P30	57.81
P20	54.63
P10	50.05

TABLE 3.15
Percentile Norms for male and female students
 (N_M = 550, N_F = 450)

Percentile	Male	Female
P100	90.50	94.50
P90	74.39	73.54
P80	70.31	71.35
P70	67.50	58.54
P60	64.89	66.04
P50	62.76	63.45
P40	60.64	60.70
P30	57.41	57.82
P20	53.89	54.83
P10	49.89	50.05

TABLE 3.16
Percentile Norms for Tribal and Nontribal Students
 ($N_T = 700, N_{NT} = 350$)

Percentile	Tribal	Non-tribal
P100	94.50	91.50
P 90	74.46	73.32
P 80	71.47	69.06
P 70	68.66	65.94
P 60	66.21	63.52
P 50	63.78	61.11
P 40	61.38	58.77
P 30	58.75	56.39
P 20	55.25	53.13
P 10	50.46	49.00

TABLE 3.17
Percentile Norms for Arts, Commerce and Science Students
 ($N_A = 650, N_{SC} = 250, N_C = 100$)

Percentile	Arts	Commerce	Science
P100	94.50	93.50	89.50
P 90	73.77	76.50	74.50
P 80	69.80	72.59	71.95
P 70	67.08	70.32	69.41
P 60	64.46	67.94	67.14
P 50	62.14	65.17	64.86
P 40	59.82	62.45	62.36
P 30	56.83	59.82	58.81
P 20	53.43	56.71	56.36
P 10	48.82	52.79	52.10

TABLE 3.18

Percentile Norms for Urban and Rural Students(N_U = 933, N_R = 67)

Percentile	Urban	Rural
P 100	94.50	82.50
P 90	74.14	73.58
P 80	70.39	70.42
P 70	68.07	67.85
P 60	65.51	65.89
P 50	62.99	64.03
P 40	60.49	62.07
P 30	57.60	59.68
P 20	54.43	57.17
P 10	49.90	53.44

3.9 PROCEDURE FOR FINAL DATA COLLECTION

The procedure followed in the data collection for the present study was as follows:

- i. Procedure for collecting data on educated unemployment: Information regarding the educated unemployed in East Khasi Hills was found out from the different officers connected with unemployment. Additional data was collected through a prepared questionnaire regarding the position of educated unemployment in East Khasi Hills from the Employment Exchange Office.
- ii. Procedure for collecting data for the existing courses in each centre: All the trades offered in all the ITI's, Polytechnic, and centres were collected.

- iii. Procedure for collecting data on the present status of Vocational Education: The data for the present status of Vocational Education were mostly collected from secondary source. Primary data was collected from various institutions, administrators and officers connected with Vocational Education.
- iv. Procedure for finding out the attitudes of preuniversity students towards Vocationalisation of Education: The ASVE was administered to the preuniversity students belonging to different groups. The same procedure utilised during the pre-tryout and tryout stages was adhered to during the administration of the final stage.

The responses of 1000 students in the sample were scored. They were classified and organised into frequency distribution. The descriptive statistics and the inferential statistics for testing the hypotheses was done by the investigator and the first draft of the report writing was done. The findings of the investigation were presented with the designed and methodology in the pre-submission Seminar on 13th September, 1989, in the presence of the faculty members of the Education Department and members of the Research Committee from other Department. At the end of the seminar after discussions it was unanimously approved for submission for Ph.D. To refine and confirm

the calculations further the investigator fed the data in HCL Work House II, Mathematics Department, NEHU, Shillong, with the help of Shri Bipul Syam Purkayastha in the month of October 1989. The input data is given in appendix D.

- v. Procedures for identifying the problems on Vocationalisation of Education: Various problems and suggestions on Vocationalisation of Education was collected from various principals of colleges, teachers and officers connected with Vocational Education.

3.10 STATISTICAL TECHNIQUES USED

- i. **Construction of the ASVE:** The main techniques used were Item Discriminating Power and Critical Ratio for 80 statements in the tryout of the attitude scale.

- ii. **Analyses of the Data:** For the analyses of the data (a) Measures of Central Tendency, viz. Mean, Median and Mode, (b) Measures of Dispersion, viz. Range, Standard Deviation, Skewness and Kurtosis were used.

- iii. **Inferential Statistics:** For the inferential statistics mainly significance of the difference between means was used for comparison between different groups. Students 't' was found suitable for testing the null hypotheses on the attitudes of the different groups of preuniversity students.

3.11 SCOPE AND LIMITATIONS

The study has the scope of optimising the utilisation of educational resources to upgrade the know-how and skills, reduce dropouts and unemployment and competence of the educated contributing for rural and urban development. The findings of the study will be applicable to a great extent to other Districts of Meghalaya, where the Government has to implement the scheme of Vocationalisation as early as possible.

The limitations of the study are as follows:

- i. The main thrust of the study was on the attitude of preuniversity students towards Vocationalisation of Education in East Khasi Hills.
- ii. The investigator was dependent only on secondary data available from the Secretariat, Government of Meghalaya, regarding Vocational Education, Technical Education and Unemployment.

3.12 CONCLUSION

The rationale of the study was highlighted in the beginning of the chapter. The statement of the problem and operational definitions of the terms used were given. The objectives and hypotheses of the study were also stated. The sample of the study were discussed with the help of appropriate tables. Construction of the

questionnaire and the steps for the construction of the final attitude scale were discussed. The procedure for data collection and statistical techniques used for analyses of data, and testing of the hypotheses were also described. Lastly the scope and limitations of the study were stated. Thus, the third chapter was devoted to the method and procedure used for the study. Analysis of the data, results and discussions are given in chapter four.

In many things a comprehensive survey of a subject is the shortest way of getting at a precise knowledge of a particular division in it.

- Charles Hodge

CHAPTER - IV
ANALYSIS OF DATA AND INTERPRETATION OF RESULTS

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4.0.0 INTRODUCTION

In the previous chapter the method and procedure of the study was given to get a total picture of the design. This chapter is set apart for analysis of the data collected using the tools mentioned in the previous chapter and interpretation of the results.

The chapter contains mainly two sections. The first section 4.1, deals with the data on Vocational Education - i.e. unemployment, manpower, demand and supply and the current status of Vocational Education in East Khasi Hills. In continuation, the data on Vocationalisation of Education are analysed and the results are interpreted after testing of the null hypotheses in section 4.2. The problems of Vocationalisation of Education are also discussed in section 4.3.

The main thrust of the study based on qualitative and quantitative data are presented with their analyses, interpretation and findings to help the investigator to draw conclusions from the study.

4.1.0 VOCATIONAL EDUCATION

4.1.1 Introduction

One of the major objectives of the study was to find out the nature and extent of educated unemployment

in East Khasi Hills. The data was collected from secondary sources and discussions were held with the officers concerned.

The growth rate over the years and the projections for the future with regard to employment were discussed. There has been an imbalance in the demand and supply of manpower in the District and the State as a whole. Whereas, there is an acute shortage of manpower in certain areas, and on the other hand there is also a large number of unemployed persons who do not find jobs. Complete elimination of this situation may not be possible but the gap can be reduced. A percentage of labour force will always remain unemployed even in a condition of full employment also. This situation has been accepted as natural even in developed countries.

4.1.2 Unemployment Situation

Unemployment problem is one of the crucial factors everywhere in the country. As per employment exchange data, the number of persons in the live register of the Employment Exchange may be seen from the Table 4.1.1.1.

TABLE 4.1.1.1
Pattern of Job Seekers as on 1st December 1987

	All Categories	Matriculate and above	Proportion of Matriculates and above	Percent Change 1987 over 1986	
				All Categories	Matriculate and above
	100 Nos	1000 Nos	%	%	%
1. Meghalaya	19.1	8.7	45.8	16.2	16.5
2. NE Region	1327.5	695.9	52.4	6.0	11.2
3. All India	30247.3	16735.4	55.3	0.6	1.7

Source: DCE & T New Delhi and Status Paper - Arunachal Pradesh.

An analysis of the job seekers on the live register of the Employment Exchange shows a growth rate of all categories of job seekers to be 16.2% during 1987 over 1986, in the State of Meghalaya as against the all India Growth Rate of 0.6 per cent. This growth rate is very much alarming. The Table 4.1.1.1 shows that the percentage of educated job seekers in 1987 (45.8 per cent) was less than the All India rate (55.3).

4.1.3 Manpower - Supply and Demand

The total number of job seekers on the Live Register of the Employment Exchange in the State shot upto 20235 at the end of the current quarter from 1977 at the end of March 1988, showing a rise of 2.3% of the total number

of job seekers on the live register 13290 were males and 6945 females. The number of unskilled workers was 2649 and others 17586.

A clear picture is given in Table 4.1.1.2.

The number of vacancies notified to the Employment Exchange by various employers in Public and Private sectors recorded a fall from 203 during January - March, 1988 to 191 during April-June, 1988, registering a decrease of 5.9%. This does not, however, reflect the actual picture of demand for and supply of labour market as neither all the vacancies are notified to the Employment Exchanges nor are all the unemployed registered with the Employment Exchange. Also not all job-seekers registered with the employment Exchanges are necessarily unemployed.

The increase in the number of educated job seekers is a cause of concern for all the Districts in the state of Meghalaya. The State at present is giving loans to unemployed educated youths. This loan can help the unemployed to establish their own business and be self-employed. Yet this scheme has not solved the unemployment problem to a very great extent.

TABLE 4.1.1.2

Occupational Break up of Applicants on the Live Register as on 30.6.1988

N.C.O. Div.	Occupational Description of applicants on the Live Register	Unskilled	Others	Total
1	2	3	4	5
0-1	Professional/technical & related Worker	-	428	428
2	Administrative, Executive and Managerial Workers	-	24	24
3	Clerical and related workers	-	136	136
4	Sales Workers	-	1	1
5	Service workers	108	281	389
6	Farmers, Fisherman, Hunters Logger and related workers	4	24	28
7,8,9	Production and related workers Transport Equipment operator and labourer	50	643	693
Workers not classified by occupations:				
x01.10	Matriculates	-	6294	6294
x01.15	Higher Secondary (11 yrs course).	-	1948	1948
x01.20	Intermediates and Higher Secondary (12 years course)			
x01.30	Graduates Arts	-	612	612
x01.35	Post Graduate Arts	-	56	56
x01.40	Graduates Science	-	170	170
x01.45	Post Graduate Science	-	30	30
x01.50	Graduate Commerce	-	165	165
x01.55	Post Graduate Commerce	-	-	-
x01.30	Graduate Others	-	-	-
x02.10	Middle School Standard	-	6774	6774
x02.90	Literate others	1366	-	1366
09.90	Workers without occupation others	1121	-	1121
Total of all divisions		2649	17586	20235

Source: Employment Exchange Office

do not have strong basis for science and mathematics, the quality of students admitted in the Vocational Education is not comparable with their counterparts outside the North Eastern Region. Depending on the poor quality of the admitted applicants, the standard of the classes and the output of the students are also not upto the expectations. Often the students who fail in the vocational courses also gets jobs. So they do not have high motivation for doing their best in their studies.

TABLE 4.1.13
Results of the Shillong Polytechnic

Particulars	1985-1986			1986-1987		
	Civil Engineering	Electrical Engineering	Mechanical Engineering	Civil Engineering	Electrical Engineering	Mechanical Engineering
Number of students Appeared:						
a. Boys	39	9	6	50	13	4
b. Girls	3	1	-	-	-	-
c. Total	42	10	6	52	13	4
Number of Students Passed:						
a. Boys	35	9	6	44	11	4
b. Girls	2	1	-	1	-	-
c. Total	37	10	6	45	11	4

Source: Principal, Shillong Polytechnic.

The Industrial Training Institute in Shillong has an intake of 230 students every year in all the trades. It

offers courses like, Electrician, Wireman, Fitter, Welder, Stenography, Mechanic (Motor-Vehicle), Carpentry, Draughtsman, Mechanics (Radio & T.V.), Plumber, Typing, and Dress Making. This ITI is under the Department of Labour and reservation of seat is according to the Government Training Manual. The entrance qualification is H.S.L.C. passed. From the year 1986 to 1989, eighty numbers of students were employed in different establishments of the State.

Table 4.1.1.4 indicates the number of trainees admitted and passed out for the last three years:

TABLE 4.1.1.4
Results of the ITI Shillong 1986-1989

Trades	Admitted ITI Shillong	Passed out Shillong
1. Electrician	79	28
2. Wireman	36	8
3. Fitter	39	31
4. Welder	57	20
5. Steno	58	17
6. Mechanic	91	10
7. Carpentry	42	1
8. Draughtsman	31	14
9. Mech (R & T.V.)	30	-
10. Plumber	-	-
11. Typist	30	-

The Don Bosco Technical Institute has an intake capacity of 250-260 students every year. The trades offered

in this Institute are, Machinist, Motor Mechanics, Cutting and Tailoring, Hand Composing, Printing Machine Operator, Book-binding, Wireman, Electrician, Electronics and Carpentry. The preference is given to tribals in the enrolment. In addition to I.T.I. course, the students have the opportunity to attend morning classes to prepare them for the H.S.L.C. Examinations. The Diploma were conferred from 1976.

Young Men Christian Association, Social Welfare and other voluntary agencies, NEHU, are providing Vocational skills to improve one self and be prepared for self employment.

The State has at present no facilities for higher level technical or Vocational Education. However there are provisions for reservation of seats for the students belonging to East Khasi Hills.

4.1.5 Vocational Courses in East Khasi Hills

In order to find out the various Vocational courses offered in East Khasi Hills, the data was collected from various secondary sources. And interviews were also held with various experts of different fields.

After fully scrutinising the information, the following areas of vocational courses were identified.

- I. Technical Group
 - a. Electrical domestic appliances and rewinding
 - b. Mechanics (Motor/vehicle)
 - c. Fitter
 - d. Welder
 - e. Wireman
 - f. Draughtsman (Civil)
 - g. Carpentry
 - h. Mech. (Radio and T.V.)
 - i. Printing Machine Operator
 - j. Book Binding.
 - k. Electronics
 - l. Hand Composition

- II. Business and Office Management
 - a. Stenography
 - b. Type Writing

- III. Animal Management based Courses
 - a. Dairy Husbandry
 - b. Pig Husbandry.
 - c. Fisheries
 - d. Poultry
 - e. Bee Keeping

- IV. Horticulture Based Courses
 - a. Fruit and Vegetable Preservation and Processing

- V. Home Science Based Vocations
 - a. Food Preservation
 - b. Catering, Food and Catering Technology
 - c. Cookery
 - d. Baking

- e. Dress designing and Making
- f. Child Care and Nutrition
- g. Weaving
- h. Cutting and Tailoring.

VI. Computer Courses

4.1.6 Quality of the Vocational Courses

In East Khasi Hills, Vocational courses are not popular, since most of the students usually rush for general courses like Arts. Due to this factor, unemployment problem rises and many educated students do not get the right type of jobs. There are very few skilled people in various areas.

Agriculture is one of the priority areas in the Seventh Plan, but so far no vocational courses relating to agriculture is imparted in any of the training institutions.

The vocational courses under the Technical group and the Business and Office Management group have a lot of scope for the dropouts at the college level. Students having any of these skills under the said groups have more scope for employment in various sectors. They also have the scope for getting self-employed in any field they are skilled in. Animal husbandry also offers significant employment opportunities especially to small and marginal

farmers in rural areas. Horticulture has very little scope in this area. Home Science based vocations are mainly for girls. But these courses are offered by Private and voluntary agencies only. It is interesting to note that only one college in Meghalaya, namely St. Mary's College offers Home Science courses at the P.U. and Degree level.

At present electronics and computer courses have a lot of scope. Students find self-employment opportunities after they have obtained diplomas in Electronics. The computer is also becoming an essential item in our lives. It is expected that it will replace files, documents, ledgers, and all sorts of temporary records in the near future. In a country like India the computer is dreaded as an unemployment creating device. But computers have become very popular in East Khasi Hills, especially in Shillong area. Thus computers can bring about a lot of new job opportunities in the area.

4.1.7 Courses in Great Demand

Through the interviews held with the experts concerning Vocational Education, and through the scrutinisation of the Secondary sources it was found that the following courses are in great demand.

- I. Computer Technology
- II. Electronics
- III. Stenography
- IV. Typing
- V. Mech (Radio and T.V.)
- VI. Electrician
- VII. Motor Mechanics
- VIII. Machinist
- IX. Cutting and Tailoring
- X. Food processing and Preservation
- XI. Dairy Husbandry
- XII. Fish Culture

4.1.8 Summary

We can see that Vocational Education is still in its infancy. Only two ITIs and a few voluntary and private agencies like YMCA, Don Bosco Technical School, etc. are imparting vocational skills in some trades. But these are insufficient to meet all the needs of the individuals. These institutions and agencies cannot help in the fast development of the State. Unemployment problem will still be existing, unless the State Government takes an active part and give an initiative to implementation of Vocational Education in Schools and Colleges.

Hence, Vocational Education can play an important role in the growth and development of the country.

4.2.0 RESULTS RELATING TO THE ATTITUDES OF PREUNIVERSITY STUDENTS TOWARDS VOCATIONALISATION OF EDUCATION

The raw data that have been collected employing the methods and procedures described in Chapter III, have been organised and classified according to the requirements of the objectives and hypotheses framed. The present chapter is devoted to the appropriate tables relating to attitudes of preuniversity students towards Vocationalisation of Education in general and dividing them into different groups, as follows:

- (1) Male Preuniversity Students
- (2) Female Preuniversity Students
- (3) Tribal Preuniversity Students
- (4) Nontribal Preuniversity Students
- (5) Urban Preuniversity Students
- (6) Rural Preuniversity Students.
- (7) Arts stream
- (8) Commerce stream
- (9) Science Stream

4.2.1 Description of the Data

TABLE 4.2.1.1

Frequency Distribution of the total Attitude Score (N = 1000)

Scores	f		
90 - 94	2		
85 - 89	3		
80 - 84	23	Range	= 56.00
75 - 79	62	Mean	= 62.65
70 - 74	155	Median	= 63.09
65 - 69	197	Mode	= 63.79
60 - 64	205	SD	= 9.48
55 - 59	157	SK	= -.14
50 - 54	108	KU	= 0.292
45 - 49	56		
40 - 44	19		
35 - 39	13		

The range of the scores was 56.00. The mean and the Median were 62.65 and 63.09 respectively. The mode and the standard deviation were 63.79 and 9.48 respectively. The distribution was negatively skewed and it was found to be slightly platykurtic.

TABLE 4.2.1.2

Frequency Distribution of Female Students (N = 450)

Scores	f		
86 - 90	1		
81 - 85	10	Range	= 54.00
76 - 80	22	Mean	= 62.44
71 - 75	54	Median	= 62.76
66 - 70	80	Mode	= 63.47
61 - 65	106	SD	= 9.21
56 - 60	68	SK	= -.10
51 - 55	59	KU	= 0.268(P)
46 - 50	41		
41 - 45	5		
36 - 40	4		

The range of the Score was 54.00. The mean was 62.44 and the Median was 62.76. The Mode was 63.47. The Standard Deviation was 9.21. The distribution was negatively skewed and it was platykurtic.

TABLE 4.2.1.3

Frequency Distribution of Male Students (N = 550)

Scores	f		
90 - 94	1		
85 - 89	2	Range	= 55.00
80 - 84	13	Mean	= 62.76
75 - 79	36	Median	= 63.45
70 - 74	92	Mode	= 66.29
65 - 69	110	SD	= 9.81
60 - 64	100	SK	= -.21
55 - 59	92	KU	= 0.288(P)
50 - 54	55		
45 - 49	23		
40 - 44	15		
35 - 39	11		

The Range of the Score was 55.00. The Mean and the Median was 62.76 and 63.45 respectively. The Mode was 66.29 and the Standard Deviation was 9.81. The Distribution was negatively skewed and was platykurtic.

TABLE 4.2.1.5

Frequency Distribution of Tribal Students (N = 700)

Scores	f		
90 - 94	2		
85 - 89	2		
80 - 84	17		
75 - 79	48	Range	= 55.00
70 - 74	117	Mean	= 63.24
65 - 69	143	Median	= 63.78
60 - 64	146	Mode	= 64.19
55 - 59	100	SD	= 9.48
50 - 54	68	SK	= -.17
45 - 49	35	KU	= 0.27 (P)
40 - 44	13		
35 - 39	9		

The Range of the Scores was 55.00. The Mean and the Median was found to be 63.24 and 63.78 respectively. The Mode was 64.19 and Standard Deviation was 9.48. The distribution was negatively skewed and was platykurtic.

TABLE 4.2.1.4
Frequency Distribution of Nontribal Students (N = 300)

Scores	f		
87 - 91	1		
82 - 86	3		
77 - 81	12		
72 - 76	22	Range	= 50.00
67 - 71	45	Mean	= 61.18
62 - 66	62	Median	= 61.11
57 - 61	64	Mode	= 61.00
52 - 56	46	SD	= 9.23
47 - 51	30	SK	= .02
42 - 46	10	KU	= 0.264 (L)
37 - 41	5		

The Range of the Scores was 50.00. The Mean and Median was found to be 61.18 and 61.11 respectively. The Mode was 61.00 and the Standard Deviation was 9.23. The distribution was positively skewed and was leptokurtic.

TABLE 4.2.1.6

Frequency Distribution of Rural Students (N = 67)

Scores	f		
78 - 82	2		
73 - 77	6	Range	= 38.00
68 - 72	13	Mean	= 63.65
63 - 67	18	Median	= 64.03
58 - 62	14	Mode	= 64.72
53 - 57	9	SD	= 7.71
48 - 52	3	SK	= -.14
43 - 47	2	KU	= 0.529 (P)

The Range of the scores was 38.00. The Mean and the Median were 63.65 and 64.03 respectively. The Mode was 64.72 and the Standard Deviation was 7.71. The distribution was negatively skewed and was platykurtic.

TABLE 4.2.1.7

Frequency Distribution of Urban Students (N = 933)

Scores	f		
90 - 94	2		
85 - 89	3	Range	= 55.00
80 - 84	21	Mean	= 62.54
75 - 79	57	Median	= 62.99
70 - 74	145	Mode	= 63.93
65 - 69	182	SD	= 9.55
60 - 64	187	SK	= -.14
55 - 59	148	KU	= 0.550(P)

The Range of the Scores was 55.00. The Mean, the Median and the Mode was 62.54, 62.99 and 63.93 respectively. The Standard Deviation was 9.55. The distribution was negatively skewed and it was platykurtic.

TABLE 4.2.1.8

Frequency Distribution of Arts Students (N = 650)

Scores	f		
90 - 94	1		
85 - 89	1		
80 - 84	14	Range	= 55.00
75 - 79	37	Mean	= 61.69
70 - 74	82	Median	= 62.14
65 - 69	124	Mode	= 62.93
60 - 64	140	SD	= 9.61
55 - 59	105	SK	= -.14
50 - 54	75	KU	= 0.263(M)
45 - 49	44		
40 - 44	16		
35 - 39	11		

The Range of the scores was 55.00. The Mean and the Median was found to be 61.69 and 62.14 respectively. The Mode was 62.93. The Standard Deviation was 9.61. The distribution was negatively skewed and was Mesokurtic.

TABLE 4.2.1.9

Frequency Distribution of Commerce Students (N = 100)

Scores	f		
89 - 93	1		
84 - 88	1		
79 - 83	4	Range	= 46.00
74 - 78	10	Mean	= 64.95
69 - 73	22	Median	= 65.17
64 - 68	18	Mode	= 69.75
59 - 63	19	SD	= 9.17
54 - 58	14	SK	= -.07
49 - 53	7	KU	= 0.273(P)
44 - 48	4		

The Range of the scores was 46.00. The Mean and the Median was 64.95 and 65.17 respectively. The Mode was 69.75 and the Standard Deviation was 9.17. The distribution was negatively skewed and was Platykurtic.

TABLE 4.2.1.10
Frequency Distribution of Science Students (N = 250)

Scores	f		
85 - 89	2		
80 - 84	6		
75 - 79	17	Range	= 52.00
70 - 74	49	Mean	= 64.22
65 - 69	55	Median	= 64.86
60 - 64	49	Mode	= 67.00
55 - 59	35	SD	= 8.89
50 - 54	25	SK	= -.22
45 - 49	8	KU	= 0.280(P)
40 - 44	2		
35 - 39	2		

The Range of the scores was 52.00. The Mean and the Median was 64.22 and 64.86 respectively. The Mode was found to be 67.00 and Standard Deviation 8.89. The distribution was negatively skewed and was Platykurtic.

TABLE 4.2.1.11

Frequency Distribution of Work Experience, Socially Useful Productive Work
Vocational Guidance, Vocational Education, Vocational Environment

Scores	WE f	SUPW f	VG f	VE f	VEnt. f
18 - 20	17	14	10	8	46
15 - 17	360	382	358	313	212
12 - 14	333	277	265	230	247
9 - 11	260	302	344	426	473
6 - 8	30	25	23	23	22
N	1000	1000	1000	1000	1000
Range	14.00	13.00	14.00	13.00	15.00
Mean	13.22	13.17	13.32	12.57	11.36
Median	13.39	13.37	13.01	12.17	10.56
Mode	14.72	15.17	15.13	10.52	9.50
SD	2.69	2.74	3.15	2.75	2.86
SK	-.19	-.22	.30	.44	.84
KU	0.438(P)	0.485(P)	0.504(P)	0.518(P)	0.473(P)

WE

The Range was 14.00. The Mean and the Median was 13.22 and 13.39 respectively. The Mode was 14.72 and Standard Deviation was 2.69. The distribution was negatively skewed and was Platykurtic.

SUPW

The Range of the score was 13.00. The Mean and the Median was 13.17 and 13.37 respectively. The Mode was 15.17. The Standard Deviation was 2.74. The distribution of the scores were negatively skewed and was Platykurtic.

VG

The Range of the scores was 14.00. The Mean and the Median was 13.32 and 13.01 respectively. The Mode was 15.13 and Standard Deviation was 3.15. The distribution was positively skewed and was Platykurtic.

VE

The Range of the scores was 13.00. The Mean and the Median was 12.57 and 12.17 respectively. The Mode and the Standard Deviation was found to be 10.52 and 2.75 respectively. The distribution was positively skewed and was Platykurtic.

VEnt.

The Range of the scores was 15.00. The Mean and the Median was found to be 11.36 and 10.56. The Mode and Standard Deviation was 9.50 and 2.86 respectively. The distribution was positively skewed and was Platykurtic.

Conclusion of the Frequency Distribution

From the frequency distribution given in fifteen tables as a basis for testing of the hypotheses, certain findings can be drawn. The Mean of the total sample was found to be 62.65, which is a little lower than the total male average attitude score of 62.76 and a little higher than the total female average score of 62.44. Similarly, the total mean attitude score of the tribal was found to be 63.24 which is higher than the total mean score of the sample and the mean attitude scores of nontribals was found to be 61.18 which was lower than that of the total sample. With reference to the streams it was found that the attitude score of Arts (M = 61.69) students were lower than the mean attitude score of the total sample. However the mean attitude scores of the commerce (M= 64.95) and Science (M=64.22) students were found to be higher than the mean attitude of the total sample. It was also found that 67 rural students had a mean attitude score of 63.66 which was higher than the mean attitude

score of the total sample. The mean attitude scores of 933 urban students (M=62.54) was found to be a little lower than the mean attitude of score of the total sample.

4.2.2 Discussion of Results

It may be restated that one of the objectives of the present study was to find out the attitudes of pre-university students towards Vocationalisation of Education. The preuniversity students had been divided into groups viz. Male and Female, tribal and Non Tribals, Arts, Science and Commerce, Rural and Urban students, and attitude of the sample towards the five components of Vocationalisation of Education. Sixteen hypotheses were formulated according to these groups.

The discussion of the findings is presented further:

4.2.2 Results of the Attitude Score

As it has already been mentioned, one of the important objectives of the present study was to find out the attitude of the preuniversity students towards Vocationalisation of Education.

The frequency distribution of the attitude scores of the students is given in Table 4.2.1.1. The mean and the standard deviation of these scores are 62.65 and

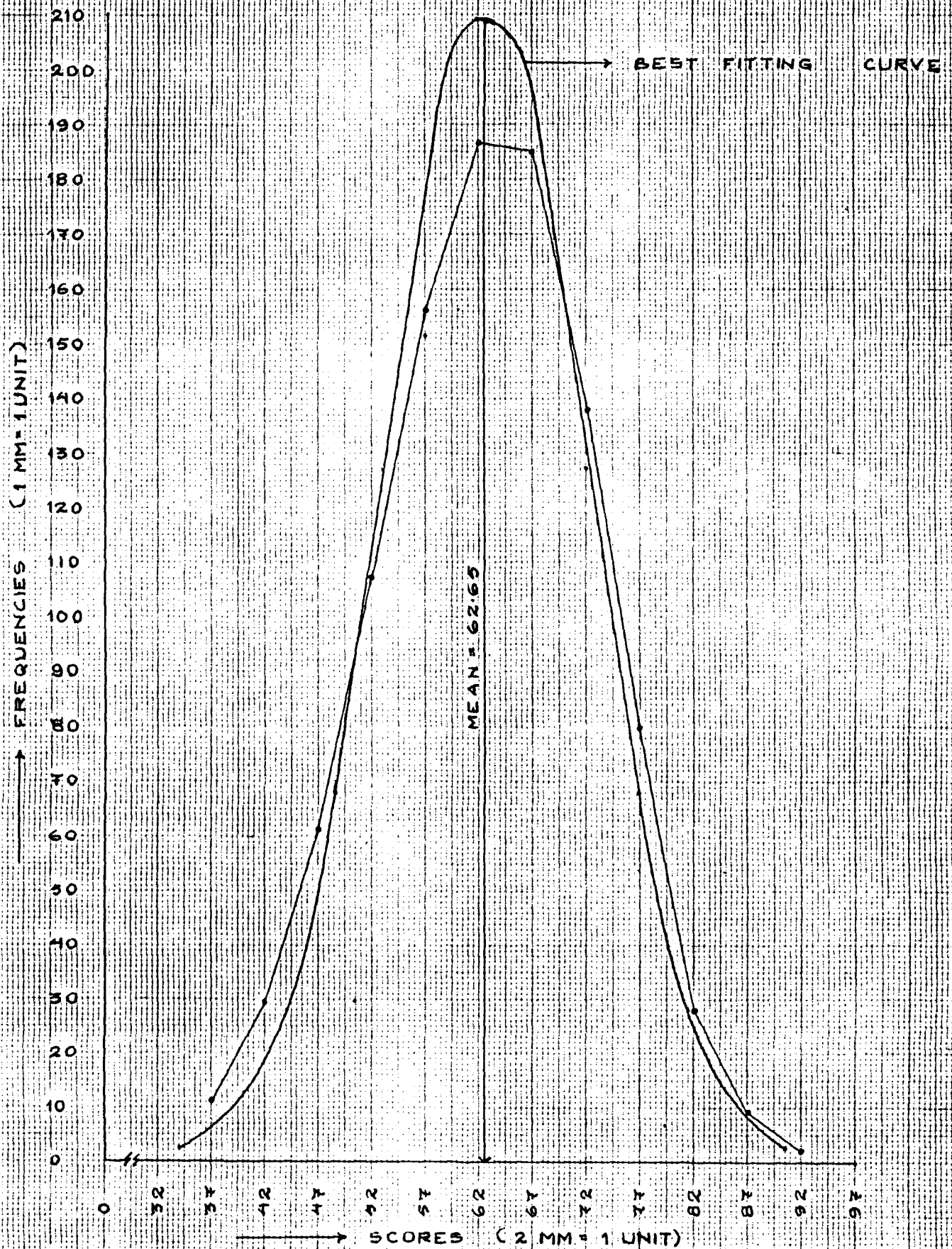


FIG-1- SMOOTHED FREQUENCY POLYGON AND BEST FITTING CURVE OF 1000 P.U. STUDENTS.

9.48 respectively. It should be remembered that the maximum score a pupil can get in the scale used in the present study is 100. In order to determine the .99 confidence interval limits of the population mean and the standard deviation, the standard errors of the mean and standard deviation are found out to be .2997 and .2128 respectively. So it may be said that the .99 confidence interval limits of the true mean of this sample are 61.88 and 63.42 and that of the true standard deviation are 8.93 and 10.03 respectively.

Though the mean is about fifty per cent of the maximum allotted for the scale the larger value of the standard deviation indicates a wide dispersion of scores. A smoothed frequency polygon vide figure I, has been drawn on the graph. The figure drawn shows that there are relatively a few measures at the low end of the scale, an increasing number almost to the maximum at the middle portion and a progressive falling off towards the high score end of the scale.

4.2.2.1 Hypothesis I

To test the first hypothesis viz. "There is no significant difference between the attitudes of preuniversity male and female students towards vocationalisation

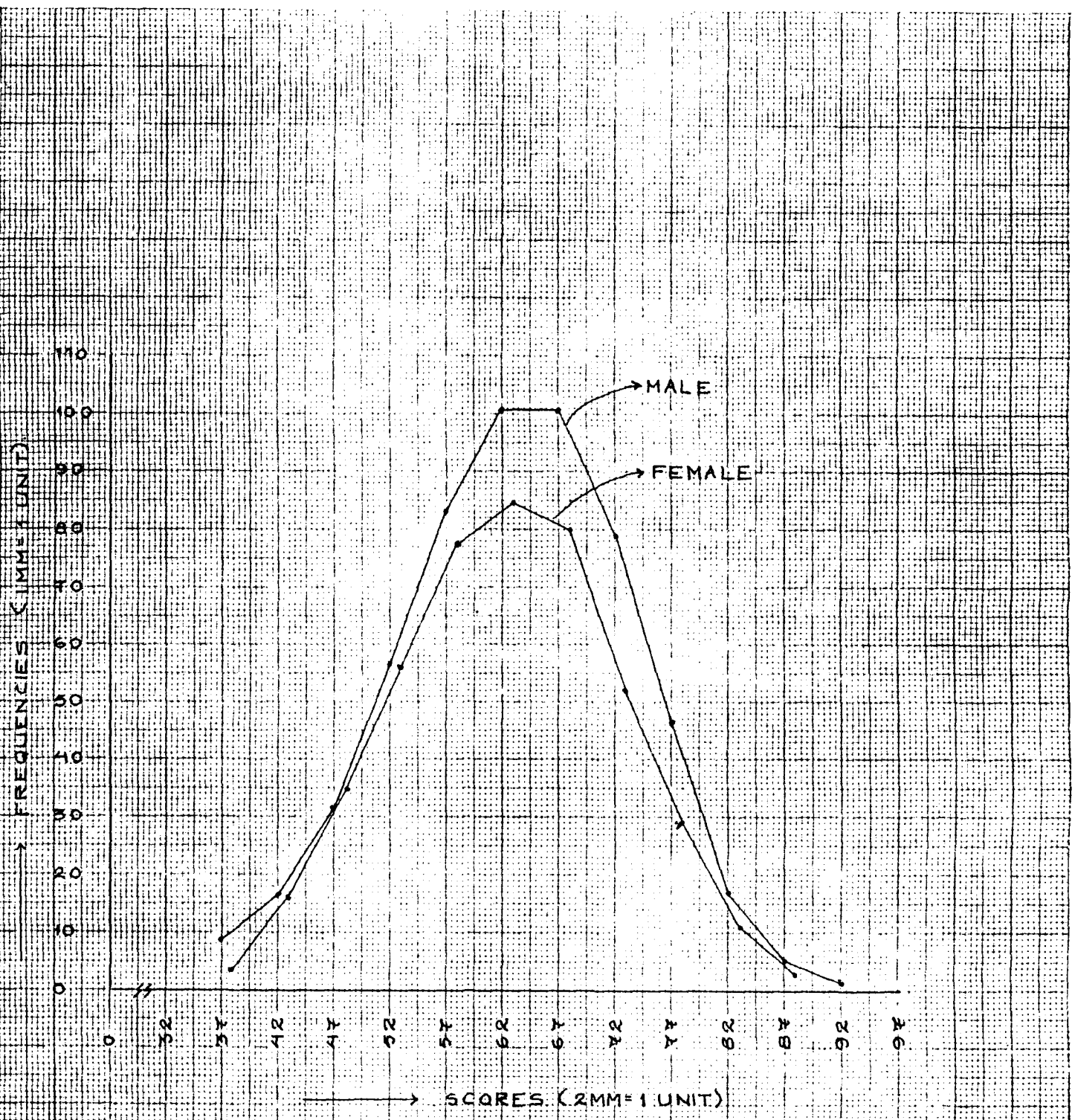


FIG-2- SMOOTHED FREQUENCY POLYGONS OF MALE AND FEMALE STUDENTS.

of Education," the significance of the difference between their means was used. It is presented in Table 4.2.2.1.

TABLE 4.2.2.1

Significance of difference between Means of Male and Female Students

Groups	N	M	SD	't' value	Level of Significance
Male	550	62.76	9.81	.53	NS
Female	450	62.44	9.21		

The above Table shows that there was no significant difference between the male and female students in their attitudes towards Vocationalisation of Education (ATVE). Though the mean of the Male group (M = 62.76) was slightly higher than the mean of the female group (M=62.44), the mean difference was negligible. The 't' value was only 0.53, which was not significant. Hence the null hypothesis was retained. A graphical comparison of the male and female students is shown in Fig.2.

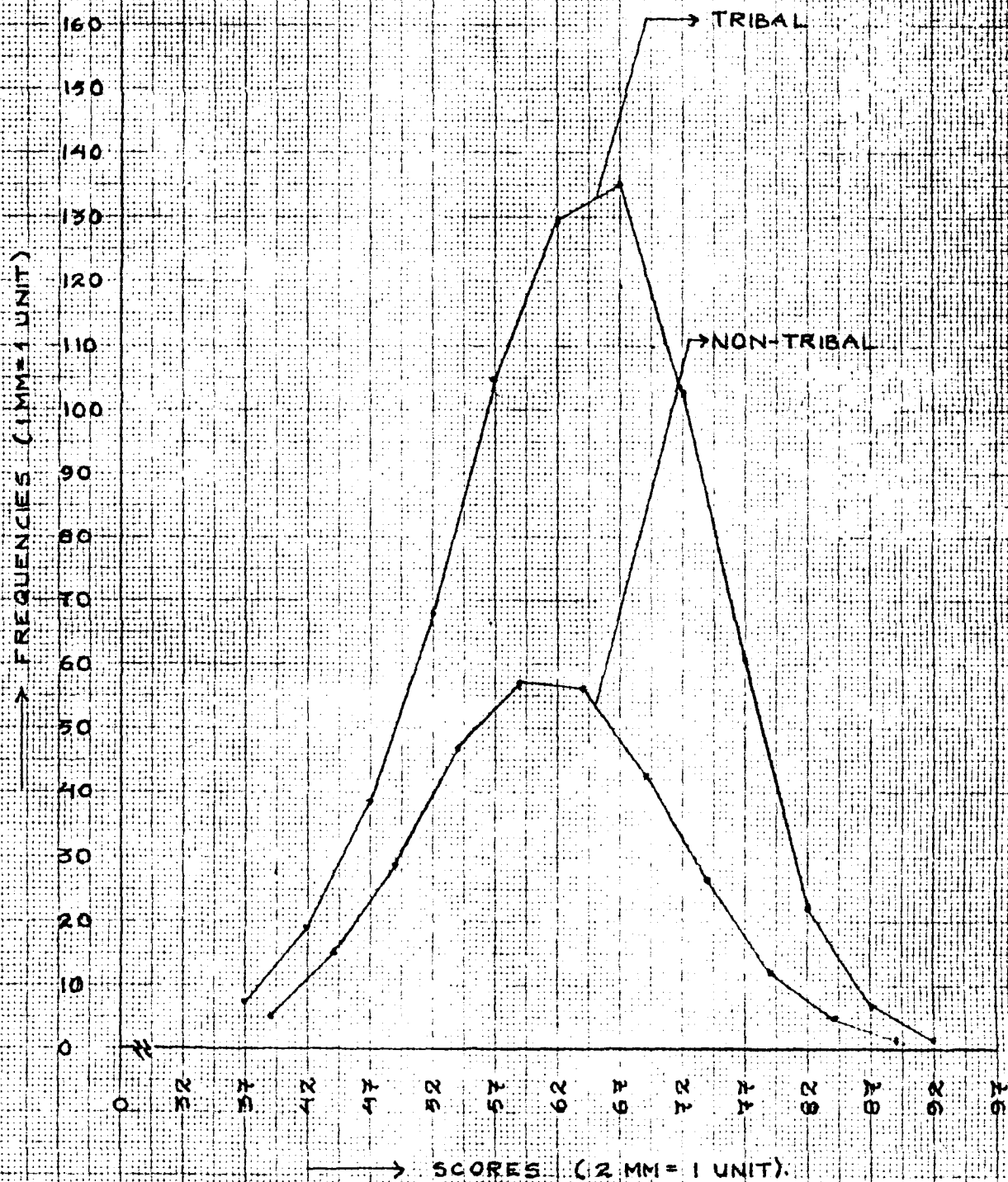


FIG-3 - SMOOTHED FREQUENCY POLYGONS OF TRIBAL AND NON-TRIBAL STUDENTS.

4.2.2.2 Hypothesis II

To test the second hypothesis viz., "There is no significant difference between the attitudes of preuniversity tribal and non-tribal students towards Vocationalisation of Education," the significance of the difference between their means was used. It is presented in Table 4.2.2.2.

TABLE 4.2.2.2

Significance of difference between the Means of Tribal and Nontribal students

Groups	N	M	SD	't' value	Level of Significance
Tribal	700	63.24	9.48	3.21	0.01
Nontribal	300	61.18	9.23		

The Table above showed that there was a significant difference between the tribal and nontribal students in their ATVE. The mean of the tribal students (M=63.24) was higher than the mean of the nontribal students (M=61.18). The 't' value was 3.22, which was significant at 0.01 level. Hence the null hypothesis was rejected. Fig.3 depicts a graphical comparison between the tribal and nontribal students.

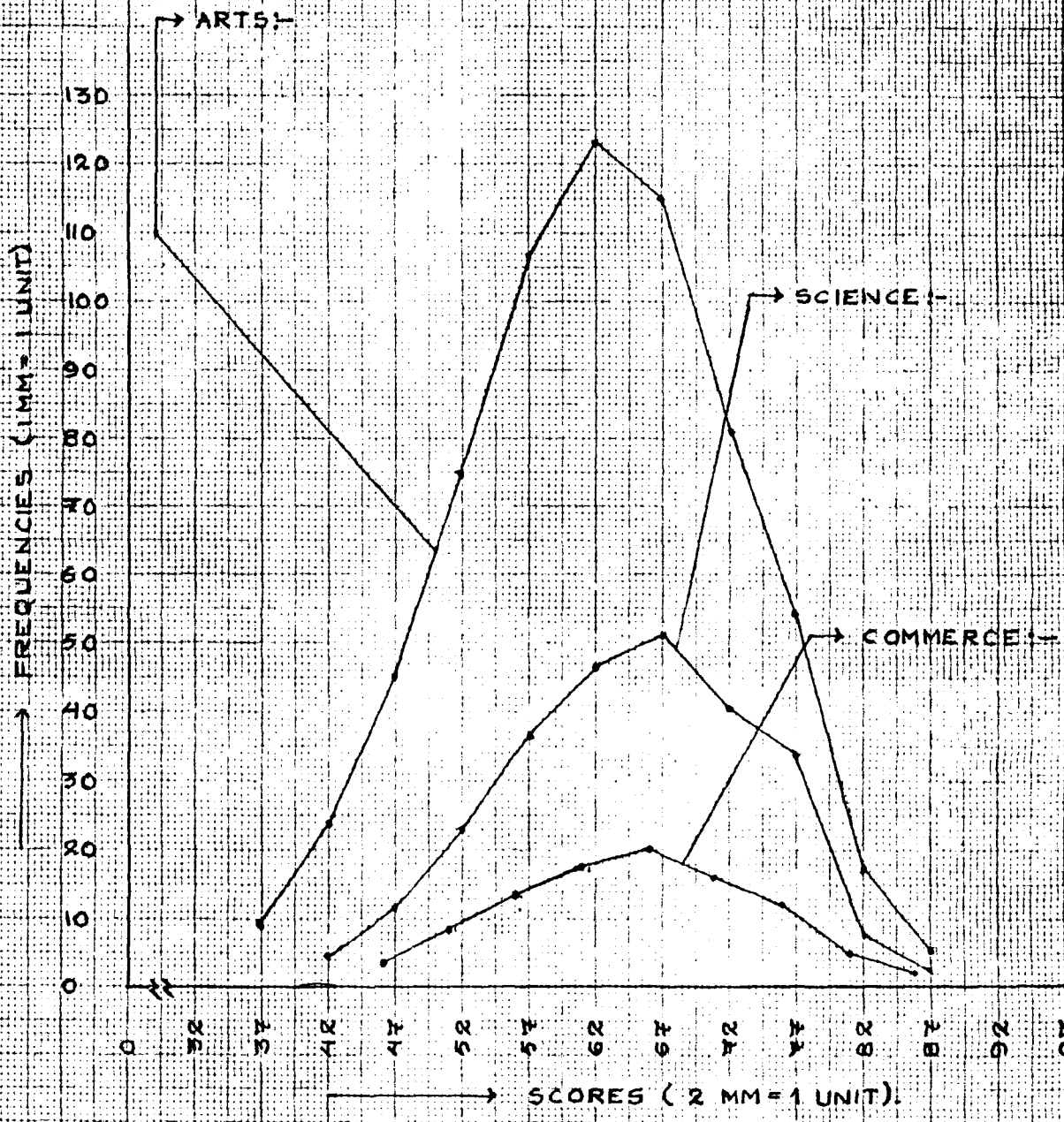


FIG-4- SMOOTHED FREQUENCY POLYGONS OF ARTS, SCIENCE & COMMERCE STUDENTS.

4.2.2.3 Hypothesis III

To test the third hypothesis viz. "There is no significant difference between the attitudes of preuniversity Arts and Commerce students towards Vocationalisation of Education," the significance of the difference between their mean was used. It is presented in Table 4.2.2.3.

TABLE 4.2.2.3

Significance of difference between the Means of Arts and Commerce students

Groups	N	M	SD	't' value	Level of Significance
Arts	650	61.69	9.61	3.29	0.01
Commerce	100	64.95	9.17		

The Table above indicated that there was a significant difference between Arts and Commerce students in their ATVE. The mean of Commerce students (M=64.95) was higher than that of the Arts students (M=61.69). The 't' value was found to be 3.29, which was highly significant at 0.01 level. Hence the null hypothesis was rejected. Fig. 4 portrays the graphs for the 3 (three) streams viz. - Arts, Commerce and Science.

4.2.2.4 Hypothesis IV

To test the fourth hypothesis Viz. "There is no significant difference between the attitudes of preuniversity Arts and Science students towards Vocationalisation of Education," the significant of the difference between their mean was used. It is presented in Table 4.2.2.4.

TABLE 4.2.2.4
Significance of difference between the Means of Arts and Science students

Groups	N	M	SD	't' value	Level of Significance
Arts	650	61.69	9.61	3.74	0.01
Science	250	64.22	8.89		

The Table above shows that a significant difference exist between Arts and Science students in the ATVE. The Mean of Arts students (M=61.69) was slightly lower than the mean of Science (M=64.22), and the difference was significant. The 't' value was 3.74 which was significant at 0.01 level. Hence the null hypothesis was rejected Refer fig.4.

4.2.2.5 Hypothesis V

To test the fifth hypothesis, viz., "There is no significant difference between the attitudes of preuniversity Commerce and Science students towards Vocationalisation of Education," the significance of the difference between their means was used. It is presented in Table 4.2.2.5.

TABLE 4.2.2.5
Significant of difference between the Means of Commerce and Science Student

Groups	N	M	SD	't' value	Level of Significance
Commerce	100	64.95	9.17	0.68	NS
Science	250	64.22	8.89		

The result obtained from the above Table shows that there was no significant difference between Commerce and Science students in their ATVE. The mean of Commerce (M=64.95) students was higher than the mean of Science students (M=64.22). The 't' value was found to be 0.68 which was negligible at any level. Hence the null hypothesis was retained. Refer fig.4.

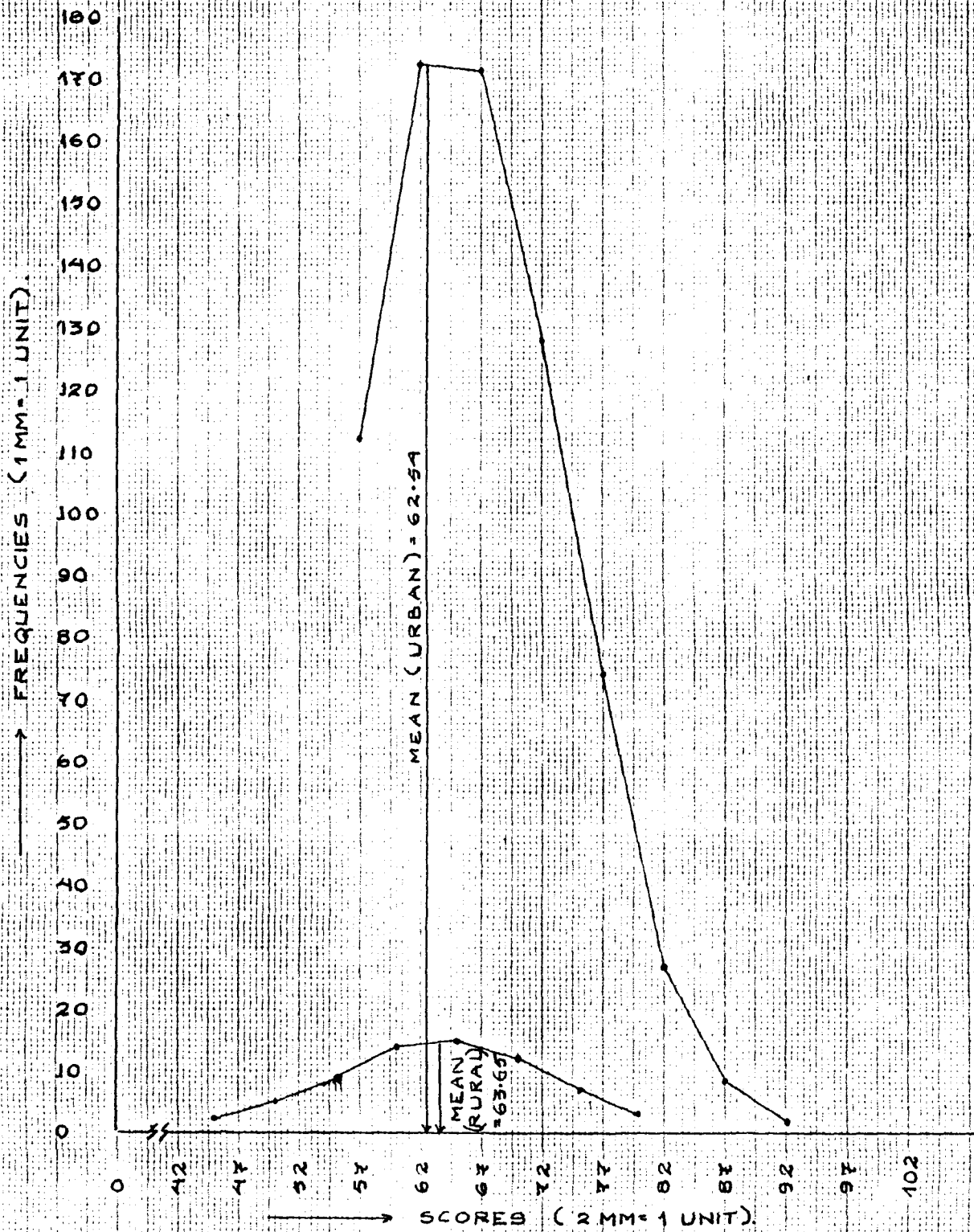


FIG-5- SMOOTHED FREQUENCY POLYGONS OF RURAL AND URBAN STUDENTS.

4.2.2.6 Hypothesis VI

To test the sixth hypothesis, "There is no significance difference between the attitudes of preuniversity Urban and Rural students towards Vocationalisation of Education," the significance of the difference between their means was used. It is presented in Table 4.2.2.6.

TABLE 4.2.2.6

Significance of difference between the Means of Urban and Rural students

Groups	N	M	SD	't' value	Level of Significance
Urban	933	62.54	9.55	1.13	NS
Rural	67	63.65	7.71		

The above Table shows that there was no significant difference between the attitudes of Urban and Rural students in ATVE. Even though the mean of the Rural students (M=63.66) was a little higher than the Urban students (M=62.54) it was negligible. The 't' value was found to be 1.13, which was not significant at 0.05 or 0.01 level. Hence the null hypothesis was retained. Fig.5 depicts a graphical comparison between urban and rural students.

4.2.2.7 Hypothesis VII

To test the seventh hypothesis viz. "No significant difference in the attitudes of preuniversity students exists between WE and SUPW," the significance of the difference between their means was used. It is presented in Table 4.2.2.7.

TABLE 4.2.2.7
Significance of difference between the Means of WE and SUPW

Groups	N	M	SD	't' value	Level of Significance
WE	1000	13.22	2.69	0.41	NS
SUPW	1000	13.17	2.74		

The result on the Table above clearly indicates that there was no significant difference in the attitudes of preuniversity students between WE and SUPW. The mean of the preuniversity students towards WE was (M=13.22) and the mean towards SUPW was (M=13.17). The 't' value was .41, which was not significant. Hence the null hypothesis was retained.

4.2.2.8 Hypothesis VIII

To test the eighth hypothesis viz., "No significant difference in the attitudes of preuniversity students exists between WE and VG," the significance of the difference between their means was used. It is presented in Table 4.2.2.8.

TABLE 4.2.2.8
Significance of difference between the Means of WE and VG

Groups	N	M	SD	't' value	Level of Significance
WE	1000	13.22	2.69	0.76	NS
VG	1000	13.32	3.15		

The Table above shows that there was no significant difference in the attitudes of preuniversity students between WE and SUPW. The mean of preuniversity students towards WE was 13.22 and the mean towards VG was 13.32. The difference between them was found negligible. The 't' value was .76 which was not significant. Hence the null hypothesis was retained.

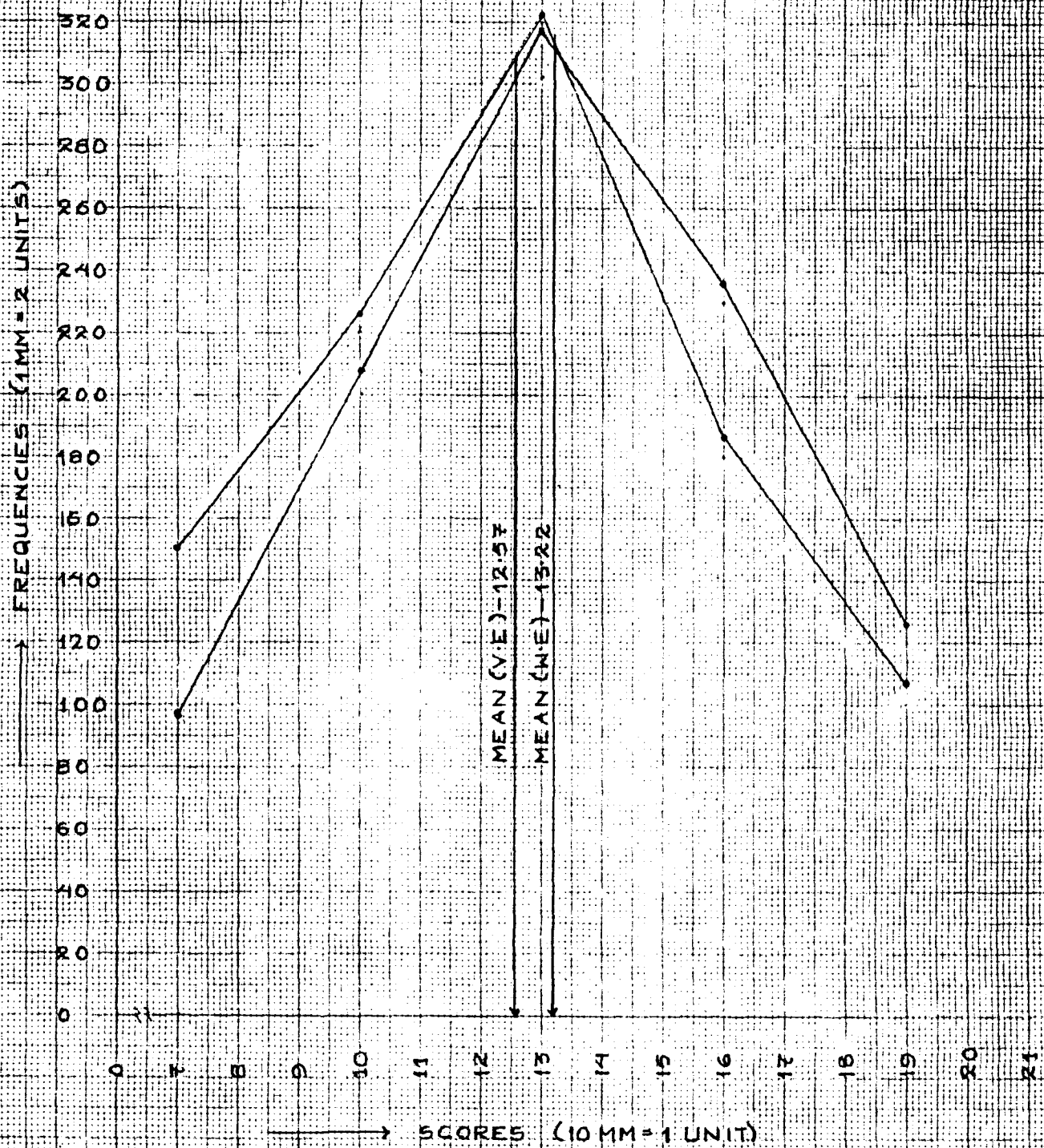


FIG-6- SMOOTHED FREQUENCY POLYGONS OF VE AND WE OF 1000 P.U STUDENTS.

4.2.2.9 Hypothesis IX

To test the ninth hypothesis, viz. "No significant difference in the attitudes of preuniversity students exists between WE and VE," the significant of the difference between their means was used. It is presented in Table 4.2.2.9.

TABLE 4.2.2.9

Significance of difference between the Means of WE and VE

Groups	N	M	SD	't' value	Level of Significance
WE	1000	13.22	2.69	5.34	0.01
VE	1000	12.57	2.75		

The Table above shows that there is a significant difference in the attitudes of preuniversity students between WE and VE. The mean for WE (M=13.22) was higher than the mean for VE (M=12.57). The 't' value was found to be 5.34, which was significant at 0.01 level. Hence the null hypothesis was rejected. Fig.6 depicts the graphical comparison of WE and VE of Preuniversity students.

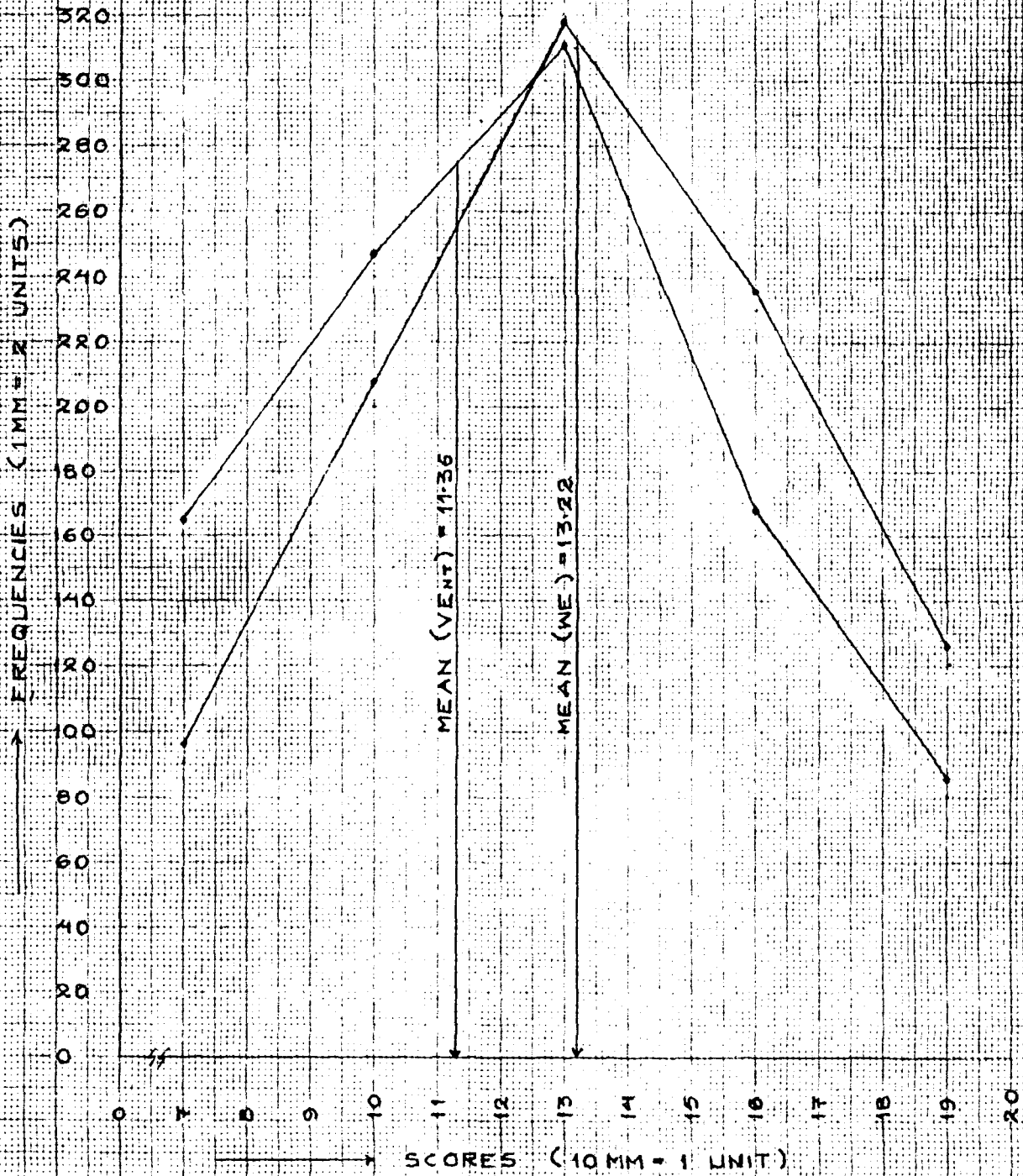


FIG - 7 - SMOOTHED FREQUENCY POLYGONS OF WE AND VENT OF 1000 P.U STUDENTS.

4.2.2.10 Hypothesis X

To test the ninth hypothesis, viz., "No significant difference in the attitudes of preuniversity students exists between WE and VEnt," the significance of the difference between their means was used. It is presented in Table 4.2.2.10.

TABLE 4.2.2.10

Significance of difference between the Means of WE and VEnt.

Groups	N	M	SD	't' value	Level of Significance
WE	1000	13.22	2.69	14.98	0.01
VEnt	1000	11.36	2.86		

The Table above shows that there is a significant difference in the attitudes of preuniversity students between WE and VEnt. The findings show that the mean for WE was 13.22 which was higher than the mean for VEnt. 11.36. The 't' value was 14.98, which was highly significant at 0.01 level. Hence the null hypothesis was rejected. Fig.7 depicts a graphical comparison of WE and VEnt. of preuniversity students.

4.2.2.11 Hypothesis XI

To test the eleventh hypothesis, viz. "No significant difference in the attitudes of preuniversity students exists between SUPW and VG," the significance of the difference between their mean was used. It is presented in Table 4.2.2.11.

TABLE 4.2.2.11

Significance of difference between the Means of SUPW and VG

Groups	N	M	SD	't' value	Level of Significance
SUPW	1000	13.17	2.74	1.14	NS
VG	1000	13.32	3.15		

The result indicates that there is no significant difference in the attitudes of preuniversity students between SUPW and VG. The mean for SUPW was 13.17 and the mean for VG was 13.32. The critical ratio was found out to be 1.14, which was not significant. Hence the null hypothesis was retained.

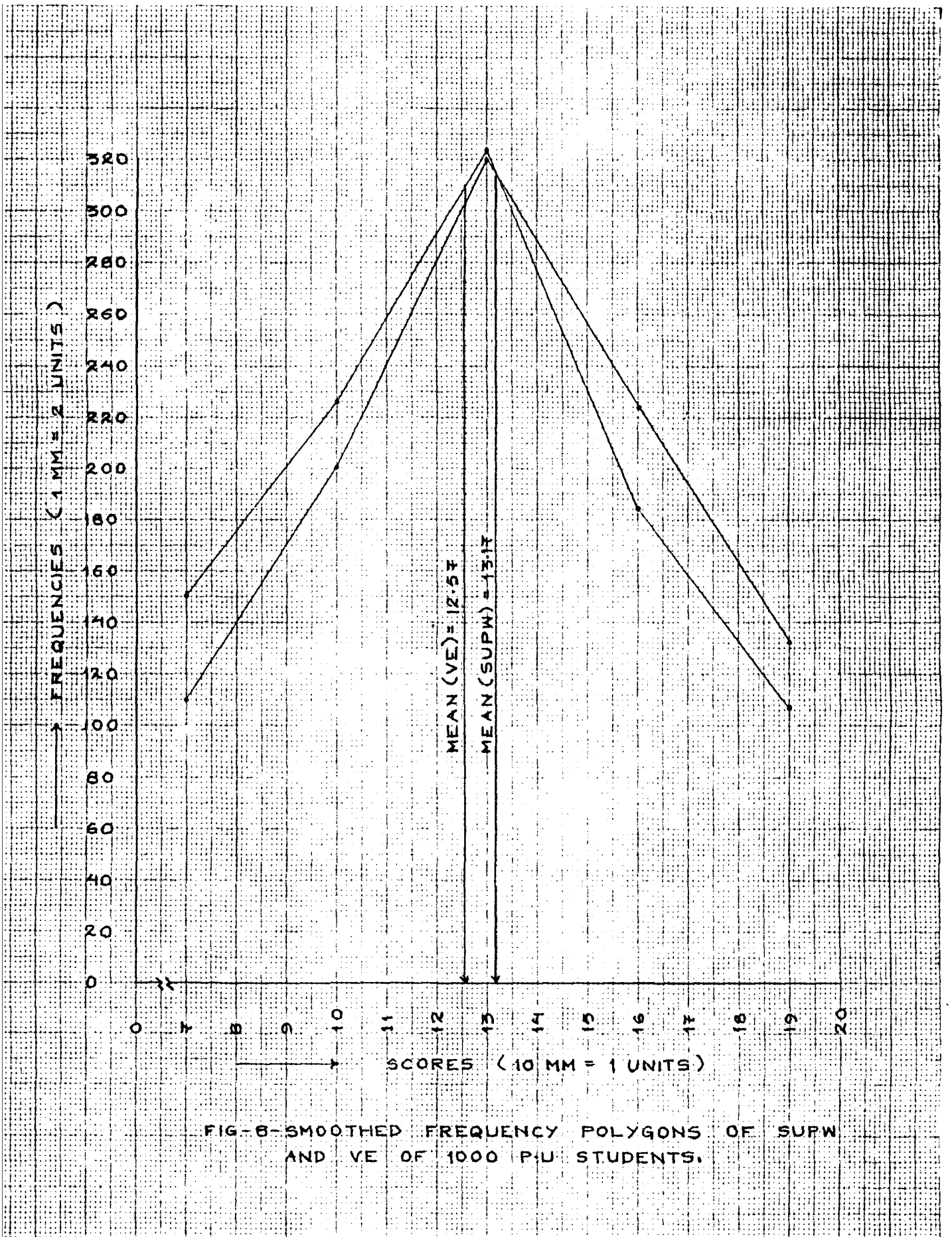


FIG-8-SMOOTHED FREQUENCY POLYGONS OF SUPW AND VE OF 1000 PU STUDENTS.

4.2.2.12 Hypothesis XII

To test the twelveth hypothesis, viz. "No significant difference in the attitudes of preuniversity students exists between SUPW and VE," the significance of the difference between their means was used. It is presented in Table 4.2.2.12.

TABLE 4.2.2.12

Significance of difference between the Means of SUPW and VE

Groups	N		SD	't' value	Level of Significance
SUPW	1000	13.17	2.74	4.89	0.01
VE	1000	12.57	2.75		

The above Table shows that there was a significant difference in the attitudes of preuniversity students between SUPW and VE. The mean for SUPW (M=13.17) was much higher than the mean for VE (M=12.57). The 't' value was found to be 4.89, which was significant at 0.01 level. Hence the null hypothesis was rejected. Fig. 8 depicts a graphical comparison between SUPW and VE of Preuniversity students.

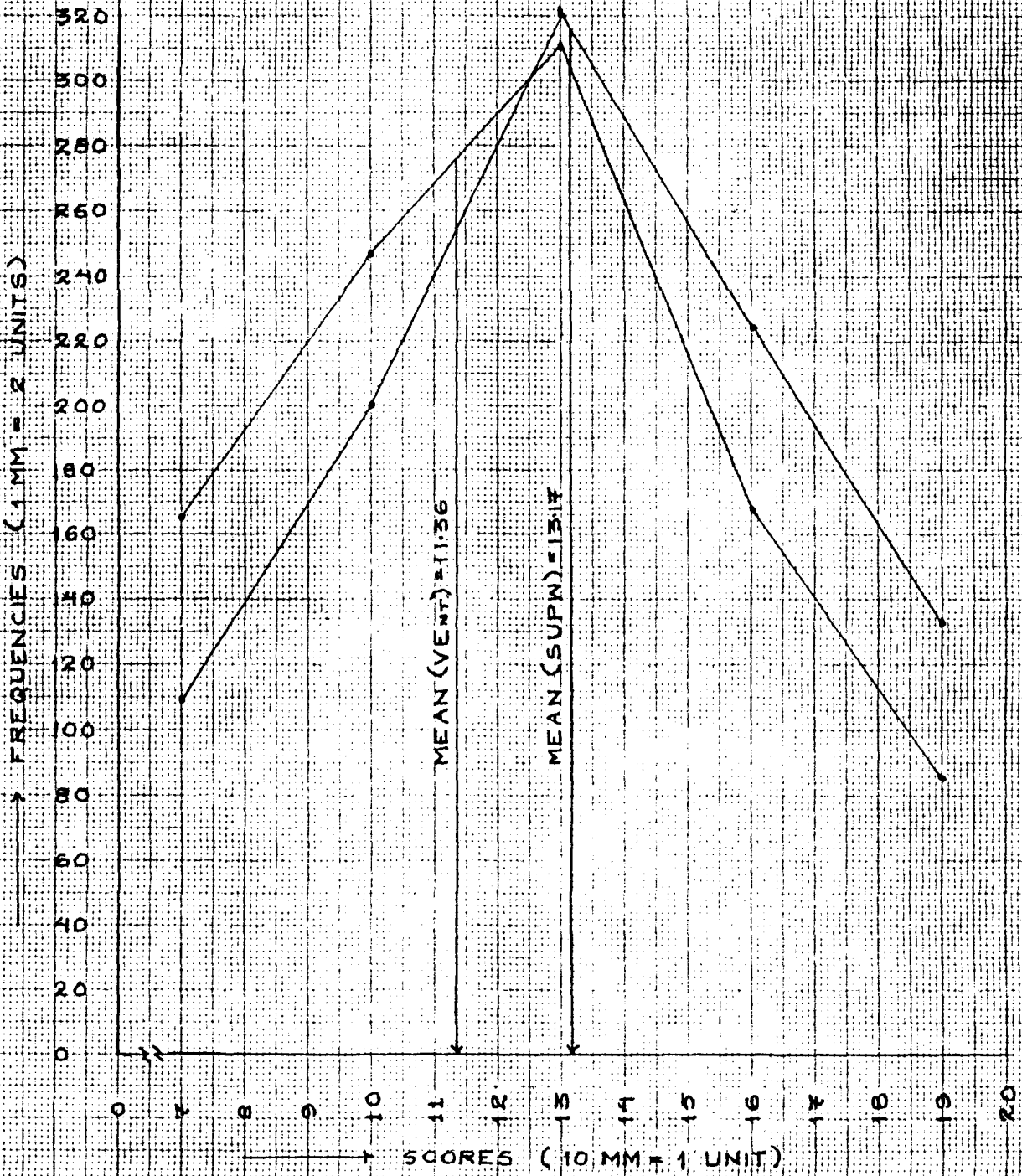


FIG-9-SMOOTHED FREQUENCY POLYGONS OF SUPW AND VENT OF 1000 PU STUDENTS.

4.2.2.13 Hypothesis XIII

To test the thirteenth hypothesis viz. "No significant difference in the attitudes of preuniversity students exists between SUPW and VEnt." the significance of the difference between their means was used. It is presented in Table 4.2.2.13.

TABLE 4.2.2.13

Significance of difference between the Means of SUPW and VEnt.

Groups	N	M	SD	't' value	Level of Significance
SUPW	1000	13.17	2.74	14.45	0.01
VEnt.	1000	11.36	2.86		

The above result shows that there was a significant difference in the attitudes of preuniversity students between SUPW and VEnt. For which the mean for SUPW 13.17 was higher than the mean for VEnt. 11.36. The 't' value was found to be 14.45, which was significant at 0.01 level. Hence the null hypothesis was rejected. Fig.9 depicts a graphical comparison between SUPW and VEnt. of Preuniversity students.

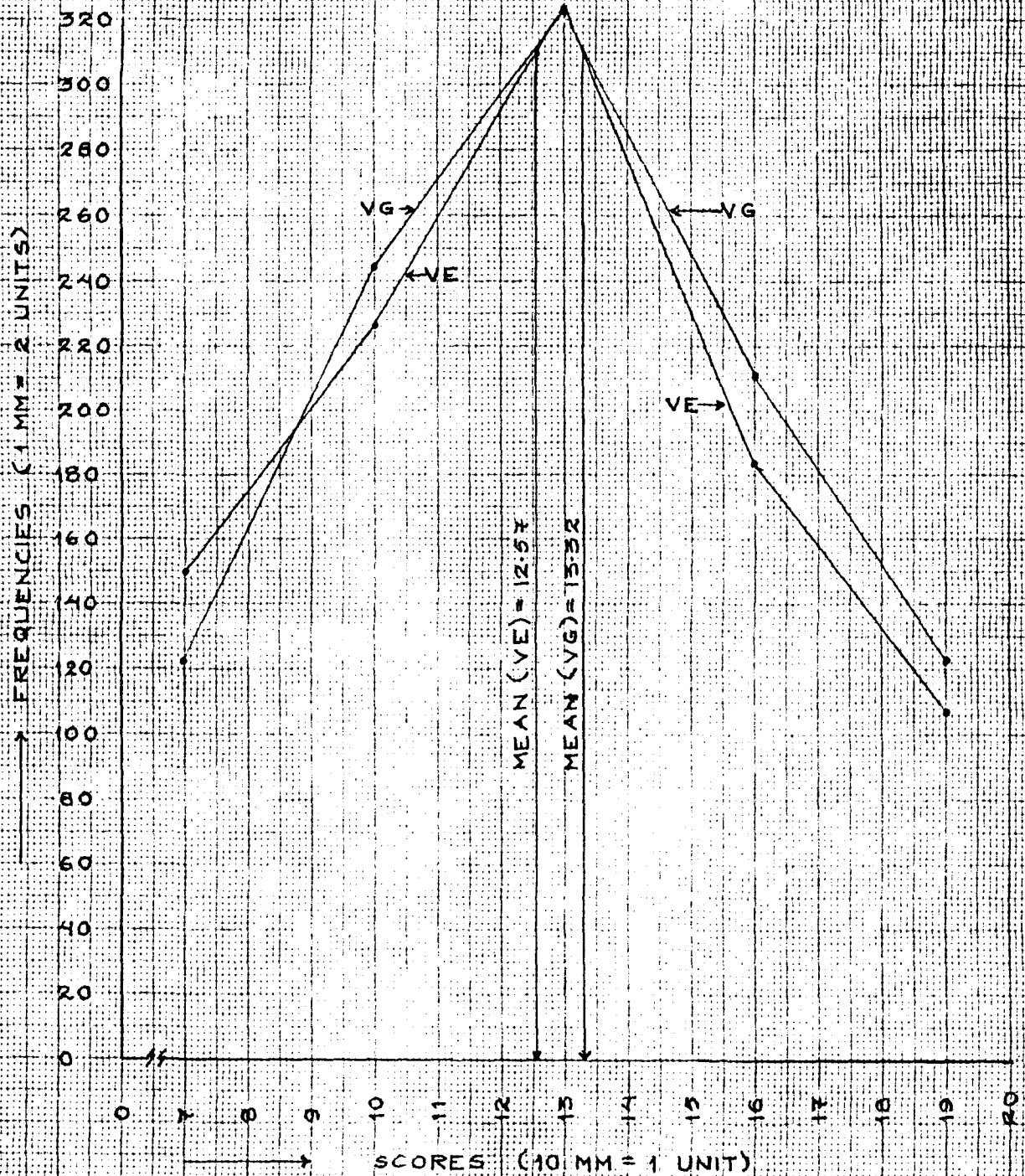


FIG-10-SMOOTHED FREQUENCY POLYGONS OF VE AND VG OF 1000 STUDENTS.

4.2.2.14 Hypothesis XIV

To test the fourteenth hypothesis, viz. "No significant difference in the attitudes of preuniversity students exists between VG and VE," the significance of the difference between their mean was used. It is presented in Table 4.2.2.14.

TABLE 4.2.2.14

Significance of difference between the Mean of VG and VE

Groups	N	M	SD	't' value	Level of Significance
VG	1000	13.32	3.15	5.67	0.01
VE	1000	12.57	2.75		

The table above indicates that there is a significant difference in the attitudes of preuniversity students between VG and VE. Their attitude towards VG (M=13.32) was higher than VE (M=12.57). The 't' value was found to be 5.67, which is significant at 0.01 level. Hence the null hypothesis was rejected. Fig.10 depicts a graphical comparison between VG and VE of Preuniversity students.

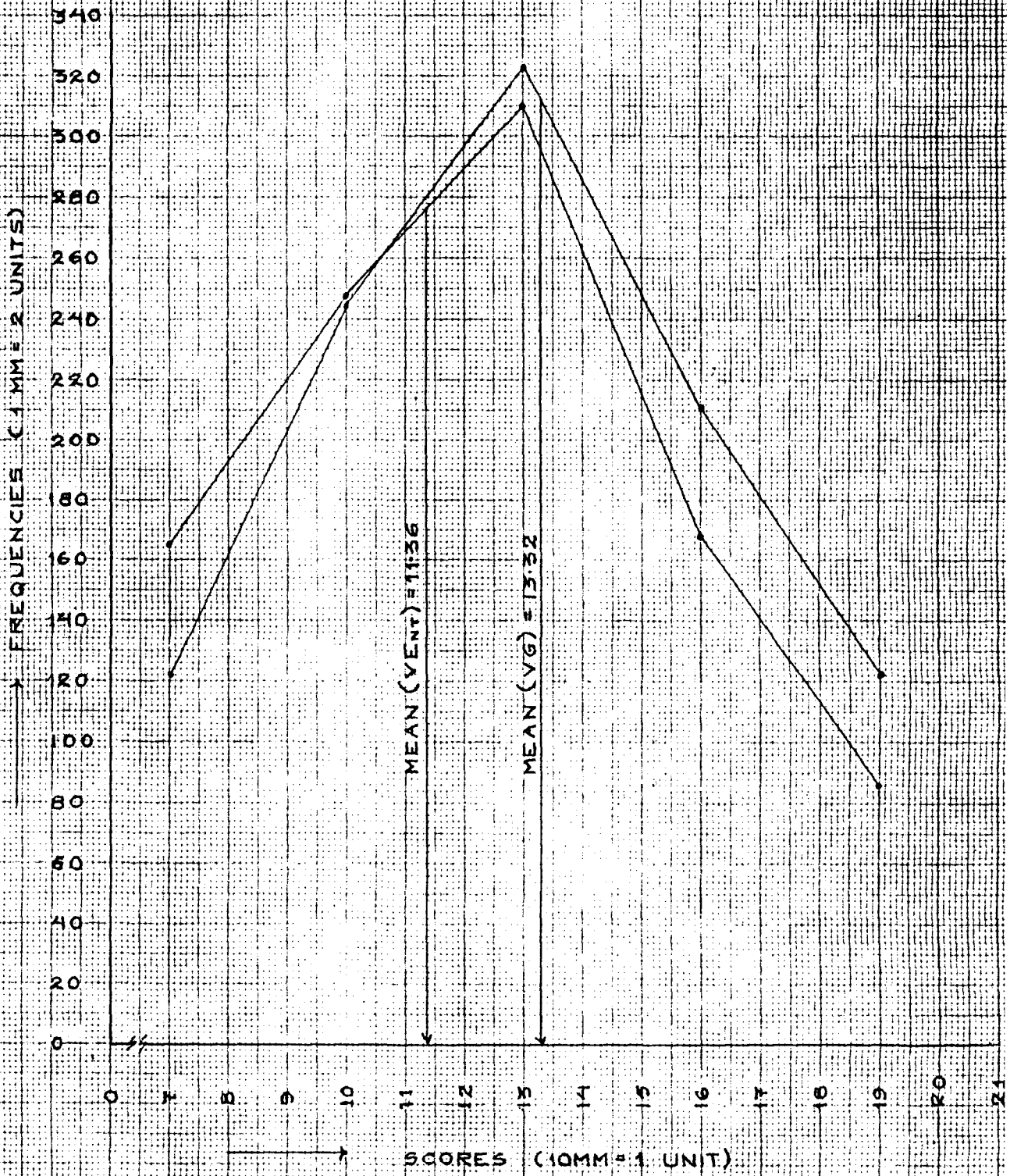


FIG-11-SMOOTHED FREQUENCY POLYGONS OF VG AND VENT OF 1000 PU STUDENTS.

4.2.2.15 Hypothesis XV

To test the fifteenth hypothesis viz. "No significant difference in the attitudes of preuniversity students exists between VG and VEnt." the significance of the difference between their means was used. It is presented in Table 4.2.2.15.

TABLE 4.2.2.15

Significance of difference between the Means of VG and VEnt.

Groups	N	M	SD	't' value	Level of Significance
VG	1000	13.32	3.15	14.57	0.01
VEnt.	1000	11.36	2.86		

The above Table indicates that students attitudes between VG and VEnt. are significantly different. The attitude for VG (M=13.32) was higher than the attitude for VEnt. (M=11.36). The 't' value was found to be 14.57 which was highly significant. Hence the null hypotheses was rejected. Fig.11 depicts a graphical comparison between VG and VEnt. of Preuniversity students.

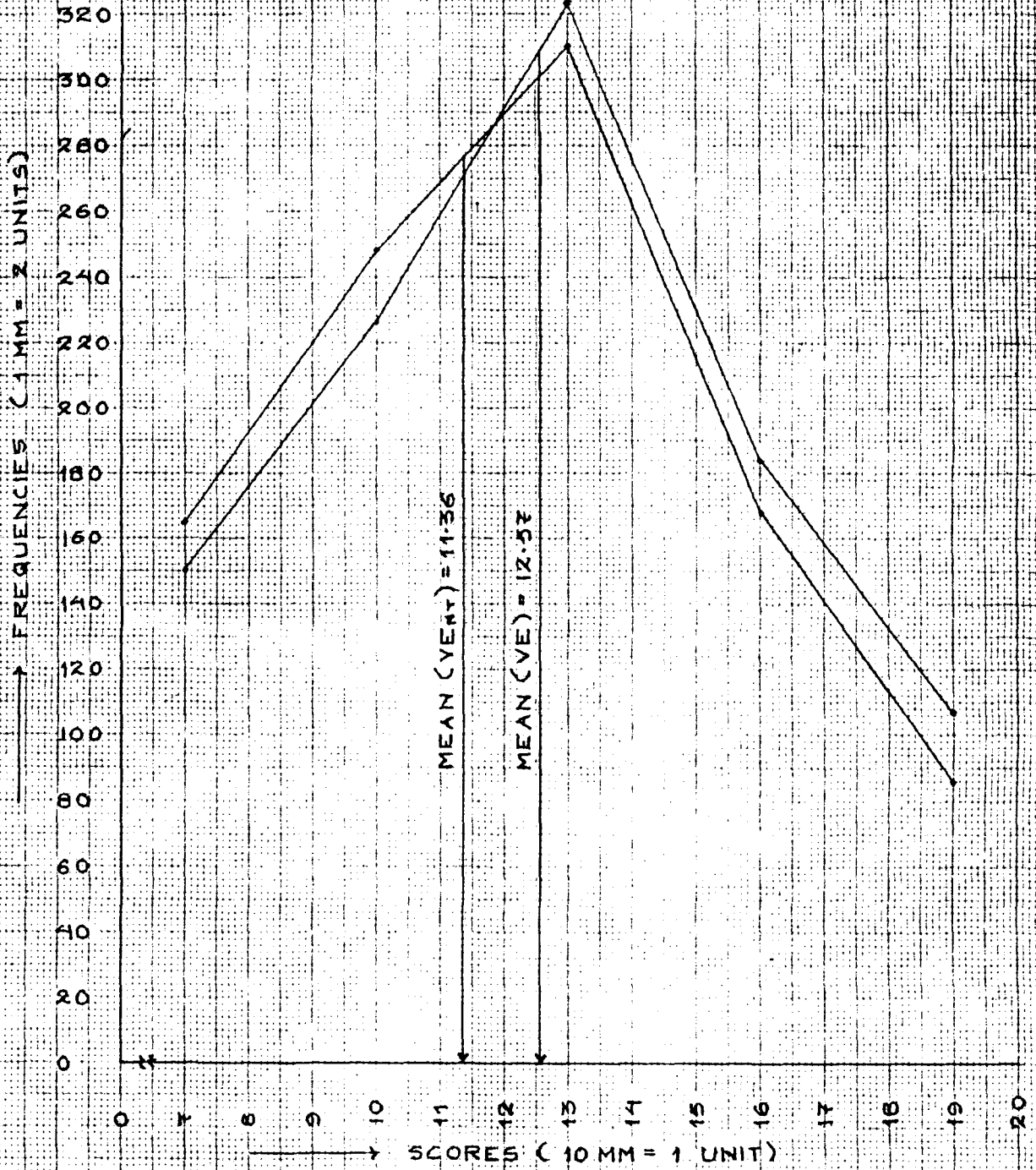


FIG-12-SMOOTHED FREQUENCY POLYGONS OF VE AND VENT OF 1000 PU STUDENTS.

4.2.2.16 Hypothesis XVI

To test the sixteenth hypothesis viz. "No significant difference in the attitudes of preuniversity students exists between VE and VEnt." the significance of the difference between their means was used. It is presented in Table 4.2.2.16.

TABLE 4.2.2.16

Significance of difference between the Means of VE and VEnt.

Groups	N	M	SD	't' value	Level of Significance
VE	1000	12.57	2.75	9.64	0.01
VEnt.	1000	11.36	2.86		

The Table above shows again the significant difference in the attitudes of preuniversity students between VE and VEnt. The attitude for VE (M=12.57) was higher than the attitude for VEnt. (M=11.36). The 't' value was found to be 9.64, which was significant at 0.01 level. Hence the null hypothesis was rejected. Fig.12 depicts a graphical comparison between VE and VEnt. of Preuniversity students.

Summary of the Findings

Groups	N	M	SD	't'	Remarks
1. Male	550	62.76	9.81	0.53	NS
Female	450	62.44	9.21		
2. Tribal	700	63.24	9.48	3.21	0.01
Nontribal	300	61.18	9.23		
3. Arts	650	61.69	9.61	3.29	0.01
Commerce	100	64.95	9.17		
4. Arts	650	61.69	9.61	3.74	0.01
Science	250	64.22	8.89		
5. Commerce	100	64.95	9.17	0.68	NS
Science	250	64.22	8.89		
6. Urban	933	62.54	9.55	1.13	NS
Rural	67	63.65	7.72		
7. WE	1000	13.22	2.69	0.41	NS
SUPW	1000	13.17	2.74		
8. WE	1000	13.22	2.69	0.76	NS
VG	1000	13.32	3.15		
9. WE	1000	13.22	2.69	5.34	0.01
VE	1000	12.57	2.75		
10. WE	1000	13.22	2.69	14.98	0.01
VEnt	1000	11.36	2.86		
11. SUPW	1000	13.17	2.74	1.14	NS
VG	1000	13.32	3.15		
12. SUPW	1000	13.17	2.74	4.89	0.01
VE	1000	12.57	2.75		
13. SUPW	1000	13.17	2.74	14.45	0.01
VEnt	1000	11.36	2.86		
14. VG	1000	13.32	3.15	5.67	0.01
VE	1000	12.57	2.75		
15. VG	1000	13.32	3.15	14.57	0.01
VEnt	1000	11.36	2.86		
16. VE	1000	12.57	2.75	9.64	0.01
VEnt	1000	11.36	2.86		

4.2.3 Discussion of Results

Sixteen null hypotheses were formulated and tested for this study. The results and their interpretations are discussed in this section.

The result of testing of hypothesis I showed that there was no significant difference between the attitudes of preuniversity male and female students towards Vocationalisation of Education. The reason for the findings may be that, in the tribal culture boys and girls are brought up together. From the very childhood they are found interested in helping their Parents irrespective of the nature of the work. In other words there is no discrimination between boys and girls in work interest as well as attitude towards work without sex-typing. During adolescence also there is very little restriction among the teenagers for mixing. As such college students are willing to do any work without prejudice relating to sex-typing. East Khasi Hills on the other hand, is mainly a tribal area and the society is matrilineal. As such the status of the females are higher than the males. So females take more responsibility and they are found running shops, contrary to the culture in the plains. In East Khasi Hills in many tribal families men are very good cooks. Hence it may be concluded that there is no significant difference between males and females in the ATVE. Their

ttitude is more or less the attitude of community.

The hypothesis II indicates that there is a significant difference between the attitudes of preuniversity tribal and nontribal students towards Vocationalisation of Education. The reason may be that Shillong is a cosmopolitan city where people from all parts of India are found. In the present study there were 700 tribal students and 300 nontribal students. As it is clearly known nontribal culture is entirely different from the tribal culture. Among the nontribals the traditional caste system and the occupational stratification and discrimination between male and female are still found existing though education has influenced to reduce its intensity. Except the Hill people of Meghalaya, other tribes as well as nontribals follow the patrilineal system where males have higher status. But in the tribal society there is community sentiment, we-feeling, and role feeling. In many respects there is very little class difference and occupations are not at all hereditary. And probably, among tribals there is more socialism. Again it can be said that tribals are self-reliant people. Traditionally they are hard-working and earn their bread by their efforts. Traditionally tribals live in the lap of nature. Since they were dependent on the forest and their fauna, they

had developed very good eye-hand coordination for their survival and for hunting animals. In Shillong for example, archery is a very important game and so many are engaged in it as a business. Hence it may be stated that tribals are more job-oriented at this stage than the nontribals as seen in the finding.

From the testing of hypotheses III, IV and V it was found that there was a significant difference between the attitudes of preuniversity arts and commerce, and arts and science students towards Vocationalisation of Education. And there was no significant difference between the attitudes of preuniversity commerce and science students.

It is a well-known fact that the future vocation of a student is linked with his academic subjects chosen. Those students who have a clear vision of their future vocation telescope the future and concentrate their energy to realise that future occupation or vocation. In this respect commerce students may have had a clear goal and moreover that course is also vocation oriented. Another reason is that a number of colleges offering commerce is very limited. Consequently those who get the chance in commerce stream do not find unemployment when they finish their studies.

Whereas, in the tribal area most of the students choose arts subjects. At school level also mathematics and science were made compulsory subjects only recently. Hence the majority of tribal students hate Mathematics and science and choose nay arts subjects given to them without thinking about the implications of their future vocations. It is also to be emphasised that there is no proper vocational guidance in most of the schools since more than fifty per cent of the teachers are under-qualified and untrained. In 1987 when there was student agitation in Meghalaya for nearly eight months, it was found that its origin was disappointment of a lot of arts students in finding appropriate vocation. Now it is a felt need especially among the students in the arts stream to acquire skills for a future job because skilled people are wanted everywhere and unskilled people are wanted nowhere. Usually the students who choose arts stream are those who get low marks and those not selected for science and commerce.

Usually, science students are found to be above average and have a steady success story behind them. Most of the students in science are not at all worried about their future occupation. The cream among them will go for professional education and others for skilled jobs.

In the present study, there were 650 arts students, 250 science students and 100 commerce students as sample. It reflects the actual student population choosing different streams in East Khasi Hills.

The results of testing of Hypothesis VI indicates that there was no significant difference in the attitudes of preuniversity urban and rural students towards Vocationalisation of Education. This may be due to the fact that, more than 80 per cent of the tribals are living in villages. In the tribal system there is very great intimacy and personal relationship between the members in a village. They work together in jhum as directed by the village chief. Since most of the tribal students are first generation learners they have their roots in their tribal village, though for study purposes they come and stay in Shillong City since they are provided accommodation and other facilities at subsidised rates. In other words except some educated and advanced tribals the urban-rural segregation as far as tribal students are concerned, involves a lot of overlapping. Hence there was no significant difference between rural and urban college students in their attitudes towards Vocationalisation of Education. Both demonstrate positive attitudes towards VE.

Hypothesis VII to XVI

The hypotheses from VII to XIV are relating to the five components of Vocationalisation of Education. The null hypotheses were framed and they were tested to find out the rank order of importance of each component as perceived by the preuniversity students as prospective consumers of Vocationalisation of Education.

The mean score of each of the components is listed below in a descending order; (i) VG=13.32, (ii) WE=13.22, (iii) SUPW=13.17, (iv) VE=12.57 and (v) VEnt.=11.36.

Out of the ten hypotheses, three have been retained i.e. VII, VIII and XI and the rest have been rejected.

The students high preference for Vocational Guidance shows that they require it at the schools or colleges. Without proper guidance it will be quite difficult for the students to choose their vocation. Vocational Guidance is necessary in helping a person to develop and accept an integrated and adequate picture of himself, and of his role in the world of work, to test this concept against reality and to convert it into a reality with satisfaction to himself and benefit to society. (Super 1957).

Another reason why the students have a higher attitude for VG may be due to the fact that they want Vocational

information service or job requirements of different vocations. The first step in Vocational Guidance is that a school should take is the supply of information concerning occupations to children according to their aptitudes, temperaments, etc. Vasudevan and Feroze (1974), Kumar (1975) also stress on the need and requirement for introducing Vocational Guidance in the school level and at plus two level.

With regard to Work Experience, students agreed on the need for introducing it even at the college level. It may be that, students feel that knowledge is gained through WE. With regards to the role of production in the development of nations, the role of science and technology, the impact of technological development on the life of the people, production activities of their own community etc. Students may also feel that WE can help to cultivate the attitudes towards Work. This finding may agree with Nagaraju (1971), Sharaduma (1972), Dharmadhikari (1973), Kulkarni (1975), Sali (1978), Goyal and Chopra (1979), Somaiah (1980), Lahi (1981), and Srivastava et.al. (1983) who stresses on the need and importance of Work Experience in the school curriculum.

With regards to SUPW, students also feel the need for it at the college level. This may be because SUPW

is different from other crafts. Its main aim is to develop manipulative skills, hammonious development of the whole man, i.e. his body, mind, heart and spirit. Students may also feel the need to be acquainted with the world of work and services of the community and develop in them a sense of respect for manual workers. Another reason may be that it can help them inculcate positive attitudes of team work and socially desirable values like self-reliance, dignity of labour, tolerance, cooperation, sympathy and helpfulness. Bajpai and Seshagiri Rao (1980) Savur (1980) and Savur (1982) also indicated the scope of SUPW.

With respect to VE and VEnt. the attitudes of the students seemed confused. And they also viewed it doubtfully. This may be due to the fact, that, VE has not been introduce in many schools so far, even if it is a thrust area. Secondly, the students may be doubtful whether they will benefit or not through employment, from VE courses, after completion. The reason may be that not all of them will be capable or willing to take up self employment as this will lead to the mobilisation of the required capital which will be difficult for most of them.

As the majority of students comprises of lower and middle income groups it is very likely that they will prefer or opt for vocations that will require less expenditure or investment on their part. Thus the overall impact of the components of Vocationalisation of Education on the students portray a dire need to change and modify certain age-old social values. Hence the Government, the society, the students themselves, and their 'significant others', teachers, etc. all have a vital role to play in bringing about a better, healthier and happier future to students.

Conclusion

It was seen from the findings that most of the different groups of the preuniversity students, did not show significant difference between them. This indicated that the students attitude towards Vocationalisation of Education was favourable. The findings of the study clearly indicates that students are receptive to Voationalisation of Education.

With regard to their attitudes toards the five components of Vocationalisation of Education, it was found that their first priority was in the area of Vocational Guidance. Work experience was their second priority.

The third priority was Socially Useful Productive Work. The fourth was Vocational education and the fifth was Vocational Environment.

The major conclusion, their educational implications, and suggestions are given in the next chapter.

4.3.0 PROBLEMS OF VOCATIONALISATION OF EDUCATION

It has already been mentioned that Meghalaya Government has not yet introduced Vocationalisation of Education at plus two level or at school level. This was due to the prevailing problems facing the Government in introducing the new scheme. In this section the various problems of Vocationalisation of Education identified by the Principals and the teachers of the colleges, are presented:

1. Lack of Infrastructural facilities: Vocationalisation of Education involves huge investment in terms of trained human resources, buildings, machines, and other facilities. Constant supply of electricity, is also essential. Since the State started its development vigorously only from 1972, it requires some more time for the State to have the trained and developed human resources needed for introducing Vocationalisation of Education. The State is not at all connected by rail, and in the hill areas

the roads are narrow and the movement is also very slow. Hence all development activities proceed in the State slowly. Since Mathematics and Science Education are not popular in the tribal areas. The State has to depend upon skilled people from other states for its developmental activities.

2. Administrative Problems: The plus two stage at present is in the colleges which are affiliated to the university. This was done in the absence of sufficient facilities in the schools to run the plus two stage effectively. So the plus two stage has to be shifted from the colleges to the schools. It involves several problems of administrative and academic nature since many teachers in the colleges will lose their job and they may not be willing to come to the plus two stage in the schools to teach. Only the competent teachers can be employed at plus two stage, and the number of competent teachers are a few. At present most of the schools do not have enough facilities to introduce the new scheme.

3. Financial Support: As plus two stage is part of the colleges, the State Government is not very keen to take over the responsibility of introducing Vocationalisation of Education since it involves huge financial investment

on the part of the State Government.

4. Problem of Unemployment: The Vocationalisation of Education is meant for the students in the formal system. But in East Khasi Hills there are a large number of school dropouts, and they are not benefited by the present scheme of Vocationalisation of Education.

5. Diversified Curriculum Planning: Proper curriculum planning for Vocationalisation of Education based on the needs and requirements of the students has not been done.

6. Aptitude Testing: At present there is no arrangement for testing the aptitude of students and giving academic and Vocational Guidance based on their talents, to release their creative potential.

Conclusion

Though there are several problems for introducing Vocationalisation of Education, earnest attempt should be made to introduce Vocationalisation of Education taking into consideration its advantages not only for the regular learners but also for all those who are interested to learn. On experimental basis every year a few high schools

with a very good facilities can start plus two classes with Vocationalisation of Education step by step and it can be extended to other schools based on the experiential gain from the experimental schools.

4.4.0 CONCLUSION OF THE FINDINGS

Vocational Education in East Khasi Hills is still at its infancy. Therefore a lot of improvements have to be made for its growth and development. As stated earlier, there are only three institutions for Vocational education. Therefore they cannot cater to the growing needs of the present society. Thus it is only through Vocationalisation of Education that the present status of Vocational Education can be improved. Vocationalisation of Education is a thrust area. Therefore it needs to be implemented in East Khasi Hills. The State and particularly East Khasi Hills is facing many problems for implementation of Vocationalisation of Education. But those complicated problems can be solved and simplified only if the public, schools, colleges university and Government work together as a team for making it a success.

*Occupation is one great source of enjoyment. No man,
properly occupied, was ever miserable.*

- L. E. Landon

CHAPTER - V

CONCLUSIONS, IMPLICATIONS, SUGGESTIONS FOR
IMPROVEMENT AND SUGGESTIONS FOR FURTHER RESEARCH

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5.0 INTRODUCTION

The analyses of the data and the interpretation of the results was presented in the previous chapter. This present chapter consists of five sections, viz. Section 5.1, gives the findings of the present study. Section 5.2, indicates the educational implications, section 5.3, depicts the suggestions for improvement, section 5.4, gives suggestions for further research, and section 5.5 gives the main contributions of the study.

5.1.0 CONCLUSIONS

The following are the major findings of the study.

5.1.1 Vocational Education

There are two sections in the results for Vocational Education.

i. Unemployment: From the secondary data obtained from the employment exchange, it was found that a number of students are still remaining jobless.

However it was found that registration per year with employment exchange has risen from 5.2 thousand in 1974 to 10.2 thousand in 1976, but came down to 5.8 thousand in 1980 and increased further to 10.4 thousand in May 1989. The placement effected in a year is also

not reducing the number of unemployed on the live registers.

ii. Status of Vocational Education: As regards to the status of Vocational Education, there are only three institutions imparting it. They are (i) Shillong Polytechnic, (ii) The Industrial Training Institute (ITI), Shillong and the (iii) Don Bosco Technical Institute, Shillong. The numbers one and two offer courses such as Electrician, Wireman, Fitter, Welder, Stenography, Mechanics (Motor Vehicle), Carpentry, Draughtsman, Mechanics (Radio and T.V.), Plumber, Typing, and Dressmaking. The ITI's are under the Department of Labour and reservation of seats are according to the Government Training Manual. The entrance qualification is pass in H.S.L.C. During the period 1986-1989, eighty numbers of students were employed in different establishments of the State.

The Don Bosco Technical Institute also offers trades such as Machinists, Motor Mechanics, Cutting and Tailoring, Hand Composing, Printing Machine, Operator, Book-Binding, Wireman, Electrician, Electronics and Carpentry. Preferences are given to Tribals in the enrolment. In addition to I.T.I. course, the students have the opportunity to attend morning classes to prepare them for the H.S.L.C. Examinations.

5.1.2 Vocationalisation of Education

The following are the major findings regarding the students ATVE.

The Mean Score of the students was found to be 62.65 and the Standard Deviation was 9.48. The findings indicates that the students attitude towards Vocationalisation of Education was favourable.

- i. There was no significant difference between the male and female students in their ATVE.
- ii. There was a significant difference between the tribal and nontribal students at 0.01 level in the ATVE. The Mean Score 63.24 of the tribals was found to be higher than the Mean score 61.18 of the nontribals.
- iii. There was a significant difference between arts and commerce students at 0.01 level in their ATVE. The mean score 64.95 commerce students was higher than the mean score 61.69 of arts students.
- iv. There was a significant difference between arts and science students at 0.01 level in their ATVE. The mean score 64.222 Science was found to be higher than the mean score 61.69 of Arts students.
- v. There was no significant difference between commerce and science students in their ATVE.

- vi. There was no significant difference between urban and rural students in their ATVE.
- vii. No significant difference in the attitudes of preuniversity students exist between WE and SUPW.
- viii. No significant difference in the attitudes of preuniversity students exist between WE and VG.
- ix. A significant difference in the attitudes of preuniversity students exist between WE and VE at 0.01 level. The mean score 13.22 of WE was higher than the mean score 12.57 of VE.
- x. A significant difference in the attitudes of preuniversity students exist between WE and VEnt at 0.01 level. The mean score 13.22 of WE was higher than the mean score 11.36 of VEnt.
- xi. No significant difference in the attitudes of preuniversity students exist between SUPW and VG.
- xii. A significant difference in the attitudes of Preuniversity students exist between SUPW and VE at 0.01 level. The mean score of 13.17 of SUPW was higher than the mean score 12.87 of VE.
- xiii. A significant difference in the attitudes of preuniversity students exist between SUPW and VEnt at 0.01 level. The mean score 13.17 SUPW was higher than the mean score 11.36 of VEnt.

xiv.No significant difference in the Attitudes of preuniversity students exist between VG and VE at 0.01 level. The mean score 13.32 of VG was higher than the mean score 12.57 of VE.

xv. A significant difference in the attitudes of preuniversity students exist between VG and VEnt at 0.01 level. The mean score 13.32 of VG was higher than the mean score 11.36 of VEnt.

xvi.A significant difference in the attitudes of preuniversity students exist between VE and VEnt at 0.01 level. The mean score 12.57 was higher than the mean score 11.36 for VEnt.

5.2.0 EDUCATIONAL IMPLICATIONS

5.2.1 Vocational Education

1. In tribal areas educated unemployment was found increasing. Most of these unemployed people were found to have arts background. They did not possess skills for any occupation. Due to disappointment many of the tribal youth join anti-social organisations, anti-national groups and underground elements. So unemployment of the educated is a cancer that is affecting the tribal society.

2. The current status of Vocational Education in East Khasi Hills is far from being satisfactory. The output is not in proportion to the input. So quantitative and

and qualitative improvement of Vocational Education is a must for development of the state.

5.2.2 Vocationalisation of Education

1. The finding that there was no significance difference between the male students and female students in their ATVE implied that Vocationalisation of Education found fertile soil among the youth and coeducation colleges can be established with diversified curriculum for different groups of students based on their aptitude irrespective of the sex-factor.

2. The finding that the tribal students were found to have higher ATVE implied that the services of the majority of the tribals could be used for middle level manpower needed for the development of the state.

3. The commerce students were found to have the highest attitude the science students higher attitude and the science students high attitude implied that education must be occupation oriented and it should have sufficient diversification to suit the manpower needs of the society. Training in skills related to any occupation enable the learner to become competent and confident to face the realities of work of work.

4. No significant difference was found between rural and urban college students in their ATVE. It implied the same positive attitude as that was found among urban students. In hill areas the town areas are not well developed. Hence in tribal areas agro-based industries and occupations priority irrespective of rural and urban areas.

5. The attitudes of P.U. students towards the competent of Vocationalisation of Education was found in the order of importance, VG, WE, SUPW, VE and VEnt. Among them students perceived vocational guidance as the most important. This was because the schools/colleges could not provide VG. Many teachers avoid it, since it is not part of the curriculum. Similarly the attitudes of students towards WE and SUPW are positive. The teenagers prefer work with hands instead of continuous theory classes. As there are limited Vocational Education in East Khasi Hills it has not become very attractive and Vocational Environment needs a lot of development to attract students for vocational courses.

6. The mean scores of the P.U. students in their ATVE was found to be 62.65 which indicated favourable attitude towards Vocationalisation of Education.

5.3.0 SUGGESTIONS FOR IMPROVEMENT

5.3.1 Vocational Education

1. Taking into consideration the increasing unemployment among the educated it is necessary to increase step by step the number of vocational courses and vocational institutions based on the growing demand especially for the non conventional courses.
2. Science and Mathematics Education at school level and college level should be improved by arranging enrichment courses, remedial course and bridge courses especially for the tribal students. Only on a firm foundation of school education qualitative improvement can be attempted. For this qualified and trained teachers should be appointed at all levels of school education and college education.
3. The following vocational courses computer, technology, electronics, stenography, typing, mechanic (Radio & T.V.), electrician, motor mechanics, machinist, cutting and tailoring, food processing and preservation, dairy husbandry and fish culture, were found in great demand in East Khasi Hills, so arrangements should be made to offer these courses either through formal and nonformal education.
4. Out of school youth, the physically handicapped and dropouts from high schools also should be given skills

through anyone of the training courses suitable to them through nonformal education so that they can also live with dignity.

5. To improve the quality of existing Vocational Education, aptitude test may be conducted for selecting the right aspirant to the right job and the right stream.

6. Manpower planning for the next twenty years may be done and according to that vocational courses may be planned.

5.3.2 Vocationalisation of Education

1. A survey of the facilities available for Vocationalisation of Education in the high schools may be conducted. And those schools which satisfy the essential minimum facilities should be given the opportunity of Vocationalisation of education by raising its status. This may be done step by step on an experimental basis, one in each district in the initial stage extendable to other schools in due course. Nowadays schools can make use of the talents of their teachers for Vocationalisation of education.

2. Career masters should be appointed in all high schools to give educational and vocational guidance to the students.

3. A Vocational Guidance Bureau should be set up in each District and in the university to coordinate the guidance services at school level, college level and the university level. The mass media especially TV and the newspapers should have regular programmes for Vocational Guidance and Educational Guidance. To facilitate this scheme it is necessary to have an educational channel separately in Doordarshan.

4. In the absence of qualified teachers for Vocationalisation of Education, the existing teachers who are interested in the scheme may be selected and special in service courses may be conducted to equip them with the necessary teaching skills for Vocationalisation of Education.

5. The school complex programme may be reactivated to help teachers to understand the innovations and changes and coordinate their activities in each area.

6. Evening classes and morning classes and Distance Education Programmes may be arranged to improve the academic qualifications of those who had opted for Vocational Education.

7. In many offices in Meghalaya State the records are maintained in such a way that they cannot be used

after a few years for reliable data. So steps should be taken to maintain records with upto date information to facilitate better planning, coordination and implementation.

8. In some of the schools SUPW has been introduced but there are often no qualified teacher for that, since it is not an examination subject, it is not given the status it deserves neither by teachers nor by students. Hence attempts may be made to evaluate and improve the quality of SUPW in schools.

9. The emerging society is expected to be a learning and working society. To accelerate the process of evolution of such a society, the right to work should become a fundamental right according to the constitution.

10. Training in entrepreneurship should be given to the unemployed youth along with vocational skills so that many of them can start trades of their own.

11. The infrastructural facilities in tribal areas need a lot of improvement. Transport and communication, electricity, proper use of water building facilities etc. deserve a lot of improvement.

5.4.0 SUGGESTIONS FOR FURTHER RESEARCH

1. A survey of high school facilities with special emphasis on feasibility of Vocationalisation of Education may be conducted.

2. A survey of manpower needs for each District in Meghalaya state may be conducted and projections may be made for the next twenty years for the traditional and the emerging non-traditional occupations.

3. A study of attitudes of students and teachers towards SUPW at high school level may be conducted to find out the present status of SUPW in Meghalaya.

4. Case studies of higher secondary schools which have successfully introduced Vocationalisation of Education in the country may be attempted.

5. A critical study of the status and the impact of Vocational Guidance services in the high school stage in Meghalaya may be attempted.

5.5.0 CONTRIBUTIONS

In conclusion the investigator like to record the main contributions of the present study:

1. Developed an attitude scale to measure the attitudes of plus two level students towards Vocationalisation

of Education.

2. Compared the attitudes of different groups of students towards Vocationalisation of education, and identified the strong and the weak components to strengthen positive attitudes for enhancing productivity and growth through appropriate educational and vocational personal guidance and manpower planning.

3. Identified the main vocational courses in great demand in East Khasi Hills to prevent the mismatch between the demand and supply of manpower existing in the District.

4. Identified the problems of Vocationalisation of Education and suggested possible solutions within the available resources taking into consideration the infra-structural constraints in the Vocational Environment in East Khasi Hills.

The true order of learning should be first, what is necessary; second, what is useful; and third, what is ornamental. To reverse this arrangement, is like beginning to build at the top of the edifice.

- Mrs. Sigourney

CHAPTER - VI

SUMMARY

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6.0 INTRODUCTION

Vocationalisation of Education and Vocational Education have been major concerns in the context of an overall transformation of the educational system in India. Vocationalisation of Education according to the National Policy of Education (1986), is meant to enhance individual employability, to reduce the mismatch between the demand and supply of skilled manpower, and to provide an alternative for those pursuing higher education without particular interest or purpose. Vocational Education will be a distinct stream, intended to prepare students for identified occupations spanning several areas of activity.

6.1 THEORETICAL BACKGROUND OF THE STUDY

The study and its setting, unemployment, manpower planning, technical and vocational education in Meghalaya have been dealt with. The meaning of Vocational Education and concept of education have also been depicted. Vocational Education during Five Year Plans, and the different aspects of attitudes were discussed in chapter one.

6.2 REVIEW OF RELATED LITERATURE

A number of Commissions and Committees, international and national in outlook, have emphasized the need for Vocational Education and Vocationalisation of Educational;

particularly at the secondary stage. Studies pertaining to Vocational Education and Vocationalisation of Education have also been conducted by different researchers. Nagaraju (1971), Sharaduma (1972), Dharmadhikari (1973), Kulkarni (1975), Sali (1978), Goyal and Chopra (1979), Somaiah (1980). Lahi (1981), Srivastava and Srivastava (1983) stressed on the need and importance of work-experience in the school curriculum. Bajpai and Seshagiri Rao (1980), Savur (1980) and Savur (1982), indicated the scope of SUPW. Vasudevan and Feroze (1974) and Kumar (1975), showed the need and the requirement for introducing vocational guidance in the school level and plus two level. Dewasthalee (1978), Chikermane (1979), Desai and Patel (1981), Thimmaiah et.al (1981), Soundravalli (1984) and Bareh (1989), presented their findings and recommendations regarding Vocational Education and Vocationalisation of Education. Regarding vocational preferences, Rai (1971), Urmila (1976), Sahoo (1977), Yadav (1980) and Raina (1987) revealed the vocational preferences of high school and secondary students and also rural and urban students.

6.3 METHOD AND PROCEDURE

6.3.1 The design of a descriptive type research conducted by investigator is discussed with its methodology and procedure sequentially. The rationale for undertaking

the study has also been included since it was evolved out of the contents of chapter one and two.

6.3.2 Statement of the problem: The problems of the study was stated as follows: "A study of Vocational Education and Attitudes towards Vocationalisation of Education in East Khasi Hills." The problem was subdivided as follows:

- i. What are the vocational courses available in East Khasi Hills?
- ii. Which are the vocational courses in great demand in East Khasi Hills?
- iii. What are the current attitudes of the plus two level students towards Vocationalisation of Education in East Khasi Hills? and
- iv. do they have positive attitudes towards Work Experience Socially Useful Productive Work, Vocational Guidance, Vocational Education and Vocationalisation of Education.

6.3.3 The operational definitions of the terms used are given in caption 3.3.

6.3.4 The objectives - The present descriptive type research was designed to:

- i. find out the nature and extent of educated unemployment in East Khasi Hills;
- ii. study the present status of Vocational Education existing in various institutions in East Khasi Hills;

- iii. measure the current attitudes of preuniversity students in East Khasi Hills towards Vocationalisation of Education by constructing an attitude scale;
- iv. identify the problem of Vocationalisation of Education in East Khasi Hills; and
- v. suggest measures for effective implementation of Vocationalisation of Education in East Khasi Hills.

6.3.5 The null hypotheses were formulated for testing the attitudes of the different groups of preuniversity students towards Vocationalisation of Education. (vide Caption 3.5).

TABLE 6.1
Description of Sample and Population

Population	N	1619	636	2255	1251	594	1845	2870	1230	4100
	%	39.49	15.51	55.00	30.50	14.49	45.00	70.00	30.00	100.00
Sample	n	395	155	550	305	145	450	700	300	1000
	%	39.50	15.50	55.00	30.50	14.50	45.00	70.00	30.00	100.00

6.3.6 The tools used for the present study are:

- i. Unstructured interview
- ii. Attitude scale constructed by investigator (Likert Type)
- iii. Personal Information Blank.

6.3.7 The reliability of the constructed attitude scale was found to be 0.92 (Test-retest Method) and 0.88 (Split-half method). The scale constructed can be said to have content validity and high reliability.

6.3.8 Procedure for Data Collection: With regards to the information gathered for Vocational Education, Secondary data from various sources were collected. Interviews with difference officers connected with Vocational Education were held to find out the problems and the present status of Vocational Education.

The attitude scale was administered to the preuniversity students in their classroom in a natural setting. After creating proper rapport with the students the investigator requested the students to read the instructions carefully and the necessary directions were given to them orally. They were then further requested to give their responses. The average time taken for its administration was 40 minutes. The response sheets were then collected after the students had finished their responses.

6.3.9 Statistical techniques Used: The main techniques used for construction of the ASVE were Item Discriminating Power and critical ratio for 80 statements in the tryout of the attitude scale. For the analysis of the data Measures

of Central Tendency, viz. Mean, Median and Mode, Measures of Dispersion viz. Range, standard deviation, Skewness and Kurtosis were used. Inferential statistics was also used to find out the significance of the difference between means, for comparison between different groups.

6.4 SCOPE AND LIMITATIONS

The study has the scope of optimising the utilisation of educational resources to upgrade the know-how, skills and competence of the educated contributing for rural and urban development. The findings of the study will be applicable to a great extent to other Districts of Meghalaya too, where the Government has to implement Vocationalisation of Education.

- i. The present study was limited to the second year preuniversity students (1988-89) studying in the colleges of East Khasi Hills. Plus two students of the central schools were not taken, for they belong to a heterogeneous group.
- ii. In the present study, available secondary data was collected from Secretariat Meghalaya Government relating to Vocational Education. Because of scanty information it seems that it is not much reliable.

6.5 CONCLUSIONS

The following are the results of the study.

6.5.1 Vocational Education

There are two sections in the results of Vocational education:

i. Unemployment: From the findings analysed from the secondary data obtained from the employment exchange. it was found that a number of adults are still remaining jobless. Statistics relating to the extent of unemployment is not much reliable because of scanty information.

However it was found that registration per year with employment exchange has risen from 5.2 thousand in 1974 to 10.2 thousand in 1976, but came down to 5.8 thousand in 1980 and increased further to 10.4 thousand in May 1989. The placement effected in a year is also not reducing the number of unemployed on the live registers.

ii. Status of Vocational Education: There are only three institutions imparting Vocational Education in East Khasi Hills. They are (1) The Industrial Training Institute (ITI), Shillong, (2) Shillong Polytechnic, and (3) Don Bosco Technical Institute, Shillong.

The courses offered are, Electrician, Wireman, Fitter, Welder, Stenography, Mechanics (Motor/Vehicle),

Carpentry, Draughtsman, Mechanics (Radio and T.V.), Plumber, Typing, and Dressmaking, Cutting and Tailoring, Hand Composing, Machinists, Printing Machine, Operator, Book-Binding and Electronics.

There are also a few voluntary agencies like YMCA, etc. giving Vocational training in Stenography, Typing, Mechanics, Welding, etc.

6.5.2 Vocationalisation of Education

The following are the major findings regarding the students ATVE.

The Mean Score of the students was found to be 62.65 and the standard deviation was 9.48. The findings indicates that the students attitude towards Vocationalisation of Education was favourable.

- i. There was no significant difference between the male and female students in their ATVE.
- ii. There was a significant difference between the tribal and non-tribal students at 0.01 level in their ATVE. The mean score 63.24 of the tribals was found to be higher than the mean score 61.18 of the non-tribals.
- iii. There was a significant difference between Arts and Commerce students at 0.01 level in their ATVE. The mean score 64.95 commerce students was higher than the mean score 61.69 of Arts students.

- iv. There was a significant difference between arts and science students at 0.01 level in their ATVE. The mean score 64.22 science was found to be higher than the mean score 61.69 of arts students.
- v. There was no significant difference between commerce and science students in their ATVE.
- vi. There was no significant difference between urban and rural students in their ATVE.
- vii. No significant difference in the attitudes of preuniversity students exists between WE and SUPW.
- viii. No significant difference in the attitudes of preuniversity students exists between WE and VG.
- ix. A significant difference in the attitudes of preuniversity students existed between WE and VE at 0.01 level. The mean score 13.22 of WE was higher than the mean score 12.57 of VE.
- x. A significant difference in the attitudes of preuniversity students exists between WE and VEnt at 0.01 level. The mean score 13.22 of WE was higher than the mean score 11.36 of VEnt.
- xi. No significant difference in the attitudes of preuniversity students exist between SUPW and VG.
- xii. A significant difference in the attitudes of Preuniversity students exist between SUPW and VE at 0.01 level. The mean score of 13.17 of SUPW was higher than the mean score 12.57 of VE.

xiii.A significant difference in the attitudes of preuniversity students exists between SUPW and VEnt at 0.01 level. The mean score 13.17 of SUPW was higher than the mean score 11.36 of VEnt.

xiv.A significant difference in the attitudes of preuniversity students exists between VG and VE at 0.01 level. The mean score 13.32 of VG was higher than the mean score 12.57 of VE.

xv. There was a significant difference in the attitudes of preuniversity students exists between VG and VEnt at 0.01 level. The mean score 13.22 of VG was higher than the mean score 11.36 of VEnt.

xvi.A significant difference in the attitudes of preuniversity students exists between VE and VEnt at 0.01 level. The mean score 12.57 was higher than the mean score 11.36 for VEnt.

A summary of the findings is given in Table 6.2 of the following page.

6.6 EDUCATIONAL IMPLICATIONS

6.6.1 Vocational Education

1. In Tribal areas educated unemployment was found increasing. Most of these unemployed people were found to have arts background. They did not possess skills for any occupation. Due to disappointment many of the tribal youth join anti-social organisations, anti-national

TABLE 6.2

Summary of the Findings

Groups	N	M	SD	t	't'	Remarks
1. Male	550	62.76	9.81			
Female	450	62.44	9.21		0.53	NS
2. Tribal	700	63.24	9.48			
Nontribal	300	61.18	9.23		3.21	0.01
3. Arts	650	61.69	9.61			
Commerce	100	64.95	9.17		3.29	0.01
4. Arts	650	61.69	9.61			
Science	250	64.22	8.89		3.74	0.01
5. Commerce	100	64.95	9.17			
Science	250	64.22	8.89		0.68	NS
6. Urban	933	62.54	9.55			
Rural	67	63.65	7.72		1.13	NS
7. WE	1000	13.22	2.69			
SUPW	1000	13.17	2.74		0.41	NS
8. WE	1000	13.22	2.69			
VG	1000	13.32	3.15		0.76	NS
9. WE	1000	13.22	2.69			
VE	1000	12.57	2.75		5.34	0.01
10. WE	1000	13.22	2.69			
VEnt	1000	11.36	2.86		14.98	0.01
11. SUPW	1000	13.17	2.74			
VG	1000	13.32	3.15		1.14	NS
12. SUPW	1000	13.17	2.74			
VE	1000	12.57	2.75		4.89	0.01
13. SUPW	1000	13.17	2.74			
VEnt	1000	11.36	2.86		14.45	0.01
14. VG	1000	13.32	3.15			
VE	1000	12.57	2.75		5.67	0.01
15. VG	1000	13.32	3.15			
VEnt	1000	11.36	2.86		14.57	0.01
16. VE	1000	12.57	2.75			
VEnt	1000	11.36	2.86		9.64	0.01

groups and underground elements. So unemployment of the education is a cancer that is affecting the tribal society.

2. The current status of Vocational Education in East Khasi Hills is far from being satisfactory. The output is not in proportion to the input. So quantitative and qualitative improvement of Vocational Education is a must for development of the State.

6.6.2 Vocationalisation of Education

1. The finding that there was no significant difference between the male students and female students in their ATVE implied that Vocationalisation of Education found fertile soil among the youth and coeducation colleges can be established with diversified curriculum for different groups of students based on their aptitude irrespective of the sex factor.

2. The finding that the tribal students were found to have higher ATVE implied that the services of the majority of the tribals could be used for middle level manpower needed for the development of the state.

3. The commerce students were found to have the highest attitude the Science students higher attitude and the Art students high attitude implied that education must

be occupation oriented and it should have sufficient diversification to suit the manpower needs of the society. Training in skills related to any occupation enable the learner to become competent and confident to face the realities of work of work.

4. No significant difference was found between rural and urban college students in their ATVE. It implied the same positive attitude as that was found among urban students. In hill areas the town areas are not well developed. Hence in tribal areas agro-based industries and occupations priority irrespective of rural and urban areas.

5. The attitudes of P.U. students towards the competent of Vocationalisation of Education was found in the order of importance, VG, WE, SUPW, VE and VEnt. Among them students perceived vocational guidance as the most important. This was because the schools/colleges could not provide VG. Many teachers avoid it, since it is not part of the curriculum. Similarly the attitudes of students towards WE and SUPW are positive. The teenagers prefer work with hands instead of continuous theory classes. As there are limited Vocational Education in East Khasi Hills it has not become very attractive and Vocational Environment needs a lot of development to attract students

for vocational courses.

6. The mean scores of the P.U. students in their ATVE was found to be 62.65 which indicated favourable attitude towards Vocationalisation of Education.

6.7 SUGGESTIONS FOR IMPROVEMENT

6.7.1 Vocational Education

1. Taking into consideration the increasing unemployment among the educated it is necessary to increase step by step the number of vocational courses and vocational institutions based on the growing demand especially for the non conventional courses.

2. Science and Mathematics Education at school level and college level should be improved by arranging enrichment courses, remedial course and bridge courses especially for the tribal students. Only on a firm foundation of school education qualitative improvement can be attempted. For this qualified and trained teachers should be appointed at all levels of school education and college education.

3. The following vocational courses computer, technology, electronics, stenography, typing, mechanic (Radio & T.V.), electrician, motor mechanics, machinist, cutting and tailoring, food processing and preservation, dairy husbandry

and fish culture, were found in great demand in East Khasi Hills, so arrangements should be made to offer these courses either through formal and nonformal education.

4. Out of school youth, the physically handicapped and dropouts from high schools also should be given skills through anyone of the training courses suitable to them through nonformal education so that they can also live with dignity.

5. To improve the quality of existing Vocational Education, aptitude test may be conducted for selecting the right aspirant to the right job and the right stream.

6. Manpower planning for the next twenty years may be done and according to that vocational courses may be planned.

6.7.2 Vocationalisation of Education

1. A survey of the facilities available for Vocationalisation of Education in the high schools may be conducted. And those schools which satisfy the essential minimum facilities should be given the opportunity of Vocationalisation of Education by raising its status. This may be done step by step on an experimental basis, one in each district in the initial stage extendable to other schools

in due course. Nowadays schools can make use of the talents of their teachers for Vocationalisation of Education.

2. Career masters should be appointed in all high schools to give educational and vocational guidance to the students.

3. A Vocational Guidance Bureau should be set up in each District and in the university to coordinate the guidance services at school level, college level and the university level. The mass media especially TV and the newspapers should have regular programmes for Vocational Guidance and Educational Guidance. To facilitate this scheme it is necessary to have an educational channel separately in Doordarshan.

4. In the absence of qualified teachers for Vocationalisation of Education, the existing teachers who are interested in the scheme may be selected and special in service courses may be conducted to equip them with the necessary teaching skills for Vocationalisation of Education.

5. The school complex programme may be reactivated to help teachers to understand the innovations and changes and coordinate their activities in each area.

6. Evening classes and morning classes and Distance Education Programmes may be arranged to improve the academic qualifications of those who had opted for Vocational Education.

7. In many offices in Meghalaya State the records are maintained in such a way that they cannot be used after a few years for reliable data. So steps should be taken to maintain records with upto date information to facilitate better planning, coordination and implementation.

8. In some of the schools SUPW has been introduced but there are often no qualified teacher for that, since it is not an examination subject, it is not given the status it deserves neither by teachers nor by students. Hence attempts may be made to evaluate and improve the quality of SUPW in schools.

9. The emerging society is expected to be a learning and working society. To accelerate the process of evolution of such a society, the right to work should become a fundamental right according to the constitution.

10. Training in entrepreneurship should be given to the unemployed youth with vocational skills so that many of them can start trades of their own.

11. The infrastructural facilities in tribal areas need a lot of improvement. Transport and communication, electricity, proper use of water building facilities etc. deserve a lot of improvement.

6.8 SUGGESTIONS FOR FURTHER RESEARCH

1. A summary of high school facilities with special emphasis on feasibility of Vocationalisation of Education may be conducted.
2. A survey of manpower needs for each District in Meghalaya State may be conducted and projections may be made for the next twenty years for the traditional and the emerging non-traditional occupations.
3. A study of attitudes of students and teachers towards SUPW at high school level may be conducted to find out the present status of SUPW in Meghalaya.
4. Case studies of higher secondary schools which have successfully introduced Vocationalisation of Education in the country may be attempted.
5. A critical study of the status and the impact of Vocational Guidance services in the high school stage in Meghalaya may be attempted.

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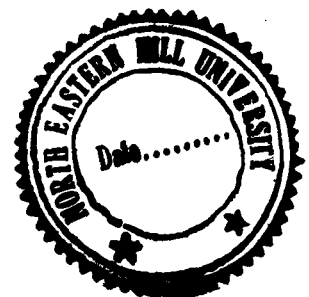
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APPENDIX A

Description on the Population of the Study

Sl. No	Colleges	Types Males Female Coed	Area Urban/ Rural	Arts Science Commerce	Male			Female			Total		Grand Total
					Tribal	Non Tribal	Total	Tribal	Non Tribal	Total	Tribal	Non Tribal	
1.	St.Edmunds	Male	Urban	Arts	124	36	160				124	36	163
				Science	72	103	175				72	103	175
2.	St.Anthony's	Male	Urban	Arts	255	133	388				255	133	388
				Science	157	60	217				157	60	217
				Commerce	88	45	133				88	45	133
3.	Lady Keane	Female	Urban	Arts				292	128	420	292	128	420
				Science				114	32	146	114	32	146
4.	St. Mary's	Female	Urban	Arts				192	82	274	192	82	274
				Science				63	72	135	63	72	135
5.	Women's	Female	Urban	Arts				105	26	131	105	26	131
6.	Union Christian	Coed	Rural	Arts	64	4	68	36	2	38	100	6	106
7.	Sohra	Coed	Rural	Arts	5	-	5	10	-	10	15	-	15
8.	Ri Bhoi	Coed	Rural	Arts	11	3	14	6	1	7	17	4	21
9.	Shillong	Coed	Urban	Arts	148	50	198	13	115	128	161	165	326
				Science	41	33	74	5	3	8	46	36	82
				Commerce	88	20	108	5	16	21	93	36	129
10.	Synod	Coed	Urban	Arts	269	35	304	118	19	137	387	54	441
				Science	31	-	31	11	-	11	42	-	42
11.	Seng Khasi	Coed	Urban	Arts	108	-	108	75	-	75	183	-	183
12.	Sankardev	Coed	Urban	Arts	20	40	60	130	35	165	150	75	225
13.	Shillong	Co-ed	Urban	Commerce	47	7	54	24	5	29	71	12	83
14.	Raid Laban	Coed	Urban	Arts	31	8	39	4	5	9	35	13	48
				Science	23	15	38	6	2	8	29	17	46
				Commerce	15	14	29	-	1	1	15	15	30
		Total	N		1619	636	2255	1251	594	1845	2870	1230	4100
			%		39.49	15.51	55.00	30.50	14.49	45.00	70.00	30.00	100.00

APPENDIX B

NORTH-EASTERN HILL UNIVERSITY DEPARTMENT OF EDUCATION Shillong

Dear Students,

As you know vocationalisation of education is one of the thrust areas in the National Policy of education 1986. I am conducting a research study in that area with special reference to East Khasi Hills. I hope the findings of the study will be useful in upgrading the status of vocationalisation of Education at +2 stage in East Khasi Hills.

Work Experience, Socially Useful Productive Work, Vocational Guidance, Vocational Education, and Vocational Environment in East Khasi Hills are taken as the aspects of Vocationalisation of Education. You will find below some positive and negative statements which express your feelings towards the various aspects of vocationalisation of education. Your frank judgements of these statements are asked for. I request you to rate these statements as Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD) by placing an (X) Mark in the appropriate brackets beside each statement.

Below a few sample statements are worked out for your guidance. And two items are given for trial

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
----------------	-------	-----------	----------	-------------------

- | | |
|--|---------------------|
| Eg. 1. Specific skills are developed by Work Experience. | () (X) () () () |
| 2. Socially Useful Productive Work does more harm than good | (X) () () () () |
| 3. The individual discovers his/her potentialities through Vocational Guidance | () () (X) () () |
| 4. Vocational Education has low status in Indian Society | () () () (X) () |

Sample for Trial

- | | |
|--|---------------------|
| 1. Desirable qualities of pupils are developed through Work Experience | () () () () () |
| 2. Vocational Education is strenuous | () () () () () |

The information you furnish will be used solely for research purpose and its confidential nature will be respected.

Attempt all the statements. Do not leave any item unanswered.

Thanking you,

Dr. Mathew George
(Guide)
Deptt. of Education, NEHU, Shillong

Cordially Yours,
Sherwin Sungoh (Researcher)
Deptt. of Education, NEHU,
Shillong.

Sl. No.	Statements on Vocational Education	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1.	Social cohesion (unity) is an outcome of Work Experience.	()	()	()	()	()
2.	Socially Useful Productive Work does not increase a nation's productivity.	()	()	()	()	()
3.	One is more observant after Vocational Guidance.	()	()	()	()	()
4.	Vocational Education is a dumping area for backward students.	()	()	()	()	()
5.	Professional courses are very useful for the talented in the community.	()	()	()	()	()
6.	Learning of Sound Theory is neglected in Work Experience.	()	()	()	()	()
7.	Socially Useful Productive Work increases social development of pupils.	()	()	()	()	()
8.	Vocational Guidance does not help us in respecting manual work.	()	()	()	()	()
9.	Vocational Education is a part and parcel of life.	()	()	()	()	()
10.	The scope of professional courses are narrow.	()	()	()	()	()
11.	Work Experience increases up prosperity of the community.	()	()	()	()	()
12.	Trained teachers are not available for managing Socially Useful Productive Work.	()	()	()	()	()
13.	Students find suitable jobs after Vocational Guidance.	()	()	()	()	()
14.	The community can progress well even without Vocational Education.	()	()	()	()	()
15.	High Prestige is given to technical Education.	()	()	()	()	()
16.	Work experience restricts social activities	()	()	()	()	()
17.	Socially Useful Productive Work fosters harmonious development of the personality.	()	()	()	()	()
18.	Vocational Guidance is useless.	()	()	()	()	()
19.	For dreamers in schools Vocational Guidance is helpful.	()	()	()	()	()
20.	Technical courses do not cater to the needs of the individual.	()	()	()	()	()
21.	All-round development of individual is possible by Work Experience.	()	()	()	()	()
22.	The nature of Socially Useful Productive Work is full of deficiencies.	()	()	()	()	()
23.	Employment exchange provide adequate Vocational Guidance.	()	()	()	()	()
24.	Vocational Education is defective.	()	()	()	()	()

Sl. No.	Statements on Vocational Education	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
25.	Technical students are successful in life.	()	()	()	()	()
26.	Work Experience is useless in a rapidly changing Society.	()	()	()	()	()
27.	Socially Useful Productive Work is a challenging task for the teachers in schools.	()	()	()	()	()
28.	Direct information about occupations is not conveyed through Vocational Guidance.	()	()	()	()	()
29.	Vocational Education enables a person to get employed early in life.	()	()	()	()	()
30.	Technical courses are inadequate for progress.	()	()	()	()	()
31.	Work Experience is an integral part of Education.	()	()	()	()	()
32.	Socially Useful Productive Work has failed to solve unemployment in our Country.	()	()	()	()	()
33.	Vocational Guidance is interesting to me	()	()	()	()	()
34.	Students can fulfil their goals through professional education.	()	()	()	()	()
35.	The present system of education is without vocational bias.	()	()	()	()	()
36.	Inter-personal relations are spoiled through Work Experience.	()	()	()	()	()
37.	Socially Useful Productive Work is centered on work directly useful to the community.	()	()	()	()	()
38.	Students make wrong choice even if Vocational Guidance is provided.	()	()	()	()	()
39.	Eye-hand coordination is enhanced through Vocational Education.	()	()	()	()	()
40.	Professional courses leads to stagnation.	()	()	()	()	()
41.	Community needs are fulfilled by Work Experience.	()	()	()	()	()
42.	Socially Useful Productive work does not occupy a central place in the school curriculum.	()	()	()	()	()
43.	Information pertaining to different types of vocations is obtained through Vocational Guidance.	()	()	()	()	()
44.	Basic needs of the students are not fulfilled through Vocational Education.	()	()	()	()	()
45.	Employment Opportunities in industry are available due to the introduction of technical courses.	()	()	()	()	()
46.	Work Experience does not make a person work hard.	()	()	()	()	()

Sl. No.	Statements on Vocational Education	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
47.	A lot of opportunities for creative self-expression is provided by Socially Useful Productive Work.	()	()	()	()	()
48.	Vocational Guidance makes a student fickle minded.	()	()	()	()	()
49.	Imbalances in manpower can be set right by Vocational Education.	()	()	()	()	()
50.	Students with low marks apt for technical courses.	()	()	()	()	()
51.	The needs of the family can be met by Work Experience.	()	()	()	()	()
52.	Basic changes in the attitudes of the society does not depend on Socially Useful Productive Work.	()	()	()	()	()
53.	Vocational Guidance motivates competition spirit among communities.	()	()	()	()	()
54.	Vocational Education has low status in the society.	()	()	()	()	()
55.	New discoveries in technology are due to research and development in technical education.	()	()	()	()	()
56.	Work Experience cannot bring about modernisation.	()	()	()	()	()
57.	Good citizenship is inculcated through Socially Useful Productive Work.	()	()	()	()	()
58.	Hatred for general education emerges from Vocational Guidance.	()	()	()	()	()
59.	Vocational Education is a programme for teenagers.	()	()	()	()	()
60.	Technical courses are too vast to assimilate.	()	()	()	()	()
61.	Persons with Work Experience get blue collared jobs easily.	()	()	()	()	()
62.	Manpower needs are not met by Socially Useful Productive Work.	()	()	()	()	()
63.	Vocational Guidance makes people self-reliant	()	()	()	()	()
64.	Vocational Education has very little scope for gifted children.	()	()	()	()	()
65.	Technicians are in great demand.	()	()	()	()	()
66.	It is difficult for teacher to maintain discipline in Work Experience classes.	()	()	()	()	()
67.	Socially Useful Productive Work develops the habit of working for the welfare of the community.	()	()	()	()	()
68.	High school pupils does not like Vocational Guidance.	()	()	()	()	()

Sl. No.	Statements of Vocational Education	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
69.	A better standard of living is ensured by Vocational Education.	()	()	()	()	()
70.	Technical Education is meant for poor students.	()	()	()	()	()
71.	Work experience creates confidence among pupils.	()	()	()	()	()
72.	Conflict in society cannot be eradicated by Socially Useful Productive Work.	()	()	()	()	()
73.	Vocational Guidance helps the students to solve many problems.	()	()	()	()	()
74.	Vocational Education is not the only means for a rewarding career.	()	()	()	()	()
75.	A lot of money is earned through Technical jobs.	()	()	()	()	()
76.	Work Experience is unnecessary in a Computer Age.	()	()	()	()	()
77.	Socially Useful Productive Work helps pupils to use leisure time wisely.	()	()	()	()	()
78.	Potentialities of the individuals are not discovered through Vocational Guidance.	()	()	()	()	()
79.	Vocational Education is subordinate to general education.	()	()	()	()	()
80.	Many professions are not within the reach of an average students.	()	()	()	()	()

PERSONAL INFORMATION BLANK

I. Please write your:

1. Name _____
2. Age _____
3. Sex _____
4. College _____
5. Tribal/Nontribal/General _____
6. Community _____
7. Streams : Arts/Science/Commerce _____
8. Rural/Urban Area _____

APPENDIX C

NORTH-EASTERN HILL UNIVERSITY
DEPARTMENT OF EDUCATION
Shillong

Dear Students,

As you know vocationalisation of education is one of the thrust areas in the National Policy of education 1986. I am conducting a research study in that area with special reference to East Khasi Hills. I hope the findings of the study will be useful in upgrading the status of vocationalisation of Education at +2 stage in East Khasi Hills.

Work Experience, Socially Useful Productive Work, Vocational Guidance, Vocational Education, and Vocational Environment in East Khasi Hills are taken as the aspects of Vocationalisation of Education. You will find below some positive and negative statements which express your feelings towards the various aspects of vocationalisation of education. Your frank judgements of these statements are asked for. I request you to rate these statements as Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD) by placing an (X) Mark in the appropriate brackets beside each statement.

Below a few sample statements are worked out for your guidance. And two items are given for trial

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
----------------	-------	-----------	----------	-------------------

- Eg. 1. Specific skills are developed by Work Experience. () (X) () () ()
2. Socially Useful Productive Work does more harm than good (X) () () () ()
3. The individual discovers his/her potentialities through Vocational Guidance () () (X) () ()
4. Vocational Education has low status in Indian Society () () () (X) ()

Sample for Trial

1. Desirable qualities of pupils are developed through Work Experience () () () () ()
2. Vocational Education is strenuous () () () () ()

The information you furnish will be used solely for research purpose: and its confidential nature will be respected.

Attempt all the statements. Do not leave any item unanswered.

Thanking you,

Dr. Mathew George
(Guide)
Deptt. of Education, NEHU, Shillong

Cordially Yours,
Sherwin Sungoh (Researcher)
Deptt. of Education, NEHU,
Shillong.

Sl. No.	Statement on attitudes towards Vocationalisation of Education	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1.	The needs of the family can be met by Work Experience.	()	()	()	()	()
2.	Manpower needs are not met by Socially Useful Productive Work.	()	()	()	()	()
3.	Vocational Guidance motivated competition spirit among communities.	()	()	()	()	()
4.	Basic needs of the students are not fulfilled through Vocational Education.	()	()	()	()	()
5.	Employment opportunities in industry are available due to the introduction of Technical Education.	()	()	()	()	()
6.	Work Experience cannot bring about modernisation.	()	()	()	()	()
7.	Socially Useful Productive Work develops the habit of working for the welfare of the community.	()	()	()	()	()
8.	Vocational Guidance is useless.	()	()	()	()	()
9.	Vocational Education is a part and parcel of life.	()	()	()	()	()
10.	Technical courses do not cater to the needs of the individual.	()	()	()	()	()
11.	Persons with Work-Experience get blue collared jobs easily.	()	()	()	()	()
12.	Basic changes in the attitudes of the society does not depend on Socially Useful Productive Work.	()	()	()	()	()
13.	Students find suitable jobs after Vocational Guidance.	()	()	()	()	()
14.	Vocational Education has low status in the society.	()	()	()	()	()
15.	New discoveries in technology are due to research and development in Technical Education.	()	()	()	()	()
16.	Work-Experience does not make a person work hard.	()	()	()	()	()
17.	A lot of opportunities for creative self-expression is provided by Socially Useful Productive Work.	()	()	()	()	()
18.	High School pupils does not like Vocational Guidance.	()	()	()	()	()
19.	A better standard of living is ensured by Vocational Education.	()	()	()	()	()
20.	Technical Education is meant for poor students.	()	()	()	()	()
21.	Work Experience creates confidence among pupils.	()	()	()	()	()

Sl. No.	Statement on attitudes towards Vocationalisation of Education	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
22.	Conflict in society cannot be eradicated by Socially Useful Productive Work.	()	()	()	()	()
23.	Vocational Guidance helps the students to solve many problems.	()	()	()	()	()
24.	Vocational Education has very little scope for gifted children.	()	()	()	()	()
25.	A lot of money is earned through technical jobs.	()	()	()	()	()

PERSONAL INFORMATION BLANK

I. Please write your:

1. Name _____
2. Age _____
3. Sex _____
4. College _____
5. Tribal/Nontribal/General _____
6. Community _____
7. Streams : Arts/Science/Commerce _____
8. Rural/Urban Area _____

APPENDIX D
SUNGOH'S RAW DATA ON ATVE

1	2	3	4	5	6	7	8	9	10	11	12	13
1	1	3	2	2	1	1	10	15	15	14	10	64
2	1	3	2	2	1	1	10	10	15	15	14	64
3	1	3	2	2	1	1	13	13	15	15	11	67
4	1	3	2	2	1	1	15	15	10	11	11	62
5	1	3	2	2	1	1	12	10	12	12	12	58
6	1	3	2	2	1	1	15	15	10	10	10	60
7	1	3	2	2	1	1	10	10	6	6	10	42
8	1	3	2	2	1	1	15	15	15	15	10	70
9	1	3	2	2	1	2	12	12	13	13	12	62
10	1	3	2	2	1	2	17	16	15	16	17	81
11	1	3	2	2	1	2	13	13	13	13	13	65
12	1	3	2	2	1	3	15	14	16	16	16	77
13	1	3	2	2	1	3	9	9	8	9	9	44
14	1	3	2	2	1	4	13	13	13	13	13	65
15	1	3	2	2	1	2	13	16	16	15	15	75
16	1	3	2	2	1	2	13	12	11	11	12	59
17	1	3	2	2	1	2	15	15	13	10	10	63
18	1	3	2	2	1	3	15	15	15	15	11	71
19	1	3	2	2	1	3	13	13	13	15	13	67
20	1	3	2	2	1	3	13	12	13	13	10	61
21	1	3	2	2	1	3	11	12	10	12	11	56
22	1	3	2	2	1	3	10	12	10	10	10	52
23	1	3	2	2	1	3	17	15	15	12	15	69
24	1	3	2	2	1	3	13	12	11	11	10	57
25	1	3	2	2	1	3	15	13	13	13	13	67
26	1	3	2	2	1	3	10	12	13	13	13	61
27	1	3	2	2	1	3	17	15	12	10	15	64
28	1	3	2	2	1	4	16	16	16	16	16	80
29	1	3	2	2	1	5	15	16	15	16	13	75
30	1	3	2	2	1	4	12	12	15	14	15	68
31	1	3	2	2	1	6	12	14	13	13	13	65
32	1	3	2	2	1	6	13	12	15	13	13	66
33	1	3	2	2	1	4	16	14	14	15	11	70
34	1	3	2	2	1	4	15	14	13	13	14	69
35	1	3	2	2	1	3	15	15	15	15	14	74
36	1	3	2	2	1	3	13	15	13	13	13	67
37	1	3	2	2	1	3	12	12	12	14	12	62
38	1	3	2	2	1	3	13	13	13	13	14	66
39	1	3	2	2	1	3	8	6	8	8	8	38
40	1	3	2	2	1	3	9	9	9	9	7	43
41	1	3	2	2	1	3	11	10	11	11	13	56
42	1	3	2	2	1	3	11	11	11	11	11	55
43	1	3	2	2	1	3	12	12	12	12	13	61
44	1	3	2	2	1	3	13	15	12	13	13	66
45	1	3	2	2	1	4	12	11	14	12	11	60
46	1	3	2	2	1	4	12	13	11	15	11	62
47	1	3	2	2	1	4	13	15	12	16	13	69
48	1	3	2	2	1	4	13	14	16	14	16	75
49	1	3	2	2	1	4	7	7	7	7	7	35
50	1	3	2	2	1	4	13	14	12	14	12	65

51	1	3	2	2	1	4	14	13	15	15	13	70
52	1	3	2	2	1	4	9	10	9	10	9	47
53	1	3	2	2	1	4	12	12	12	12	12	60
54	1	3	2	2	1	4	11	11	12	11	12	57
55	1	3	2	2	1	4	10	10	12	11	10	53
56	1	3	2	2	1	4	15	14	14	15	14	72
57	1	3	2	2	1	4	11	12	12	11	12	58
58	1	3	2	2	1	4	12	11	15	12	14	64
59	1	3	2	2	1	4	11	12	11	12	11	57
60	1	3	2	2	1	4	10	10	12	10	12	54
61	1	3	2	2	1	4	12	10	11	11	11	55
62	1	3	2	2	1	4	12	11	12	12	11	58
63	1	3	2	2	1	4	9	10	9	10	10	48
64	1	3	2	2	1	4	10	11	11	11	10	53
65	1	3	2	2	1	5	12	10	13	10	10	55
66	1	3	2	2	1	5	13	11	13	14	12	65
67	1	3	2	2	1	5	12	14	13	14	10	63
68	1	3	2	2	1	5	13	13	14	15	12	67
69	1	3	2	2	1	5	16	15	17	16	17	81
70	1	3	2	2	1	5	13	14	15	12	12	66
71	1	3	2	2	1	5	12	12	15	13	14	66
72	1	3	2	2	1	5	14	15	16	12	14	71
73	1	3	2	2	1	5	12	10	10	11	10	53
74	1	3	2	2	1	5	11	12	10	10	10	53
75	1	3	2	2	1	5	12	12	13	11	10	58
76	1	3	2	2	1	5	15	15	16	16	17	79
77	1	3	2	2	1	5	12	11	13	12	12	60
78	1	3	2	2	1	5	12	11	13	10	10	56
79	1	3	2	2	1	5	11	10	11	11	10	53
80	1	3	2	2	1	6	15	14	14	15	15	73
81	1	3	2	2	1	6	14	15	13	14	10	66
82	1	3	2	2	1	6	14	14	16	14	13	71
83	1	3	2	2	1	6	12	10	11	13	12	58
84	1	3	2	2	1	6	15	13	16	12	14	70
85	1	3	2	2	1	6	10	12	15	10	10	57
86	1	3	2	2	1	6	15	16	15	14	14	74
87	1	3	2	2	1	6	13	14	12	13	10	62
88	1	3	2	2	1	6	12	15	12	11	10	60
89	1	3	2	2	1	6	12	12	13	15	13	65
90	1	3	2	2	1	6	10	11	11	10	10	52
91	1	3	2	2	1	6	10	12	12	11	12	57
92	1	3	2	2	1	6	15	13	15	12	12	67
93	1	3	2	2	1	6	13	13	15	12	12	65
94	1	3	2	2	1	6	14	16	16	16	16	78
95	1	3	2	2	1	6	10	12	11	10	11	54
96	1	3	2	2	1	6	11	11	10	12	10	54
97	1	3	2	2	1	6	16	12	13	15	14	70
98	1	3	2	2	1	6	12	10	15	15	10	62
99	1	3	2	2	1	6	12	13	14	11	13	63
100	1	3	2	2	1	6	15	15	11	15	15	71

101	1	3	2	2	1	6	13	15	11	15	11	65
102	1	3	2	2	3	1	15	15	15	15	11	71
103	1	3	2	2	3	1	13	13	15	15	10	66
104	1	3	2	2	3	1	10	15	15	14	14	68
105	1	3	2	2	3	1	12	10	10	10	10	52
106	1	3	2	2	3	1	10	15	15	15	14	69
107	1	3	2	2	3	1	14	10	10	10	10	54
108	1	3	2	2	3	1	8	8	10	10	8	44
109	1	3	2	2	3	1	8	8	9	9	12	46
110	1	3	2	2	3	1	15	15	15	15	11	71
111	1	3	2	2	3	1	14	14	10	10	10	58
112	1	3	2	2	3	1	12	12	15	15	10	64
113	1	3	2	2	3	2	12	10	12	10	10	54
114	1	3	2	2	3	2	15	11	10	15	15	66
115	1	3	2	2	3	2	15	15	13	12	17	67
116	1	3	2	2	3	2	12	15	15	12	14	68
117	1	3	2	2	3	2	13	15	12	12	12	64
118	1	3	2	2	3	2	13	10	15	13	12	63
119	1	3	2	2	3	2	12	11	14	15	10	62
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Where,

- Col. 1. Code no of students 1-1000
- Col. 2. Code no. of colleges 1+10
- Col. 3. Code no. of Coeducation(1), Female(2) and Male(3) colleges.
- Col. 4. Code no. of Rural(1) and Urban(2) students.
- Col. 5. Code no. of Female(1) and Male(2).
- Col. 6. Code no. of Arts(1) Com(2) Science(3)
- Col. 7. Code no. of Tribal(1) and Nontribal(2)
- Col. 8. Score of WE
- Col. 9. Score of SUPW
- Col. 10. Score of VG
- Col. 11. Score of VE
- Col. 12. Score of VEnt.
- Col. 13. Total Score of ATVE.