

**VOCATIONAL INTEREST OF CLASS IX STUDENTS  
OF LAKHIMPUR DISTRICT OF ASSAM  
: A COMPARATIVE STUDY**

**Thesis submitted to Nagaland University in fulfillment of the  
requirements for award of the Degree of Doctor of Philosophy  
in Education**

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(Hemanta Kumar Baruah)



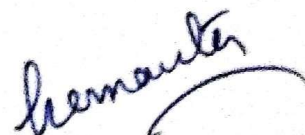
## DECLARATION

I, Shri Hemanta Kumar Baruah, do hereby declare that this thesis entitled, "VOCATIONAL INTEREST OF CLASS-IX STUDENTS OF LAKHIMPUR DISTRICT OF ASSAM : A COMPARATIVE STUDY" is my original research work undertaken and carried out under the guidance and supervision of Dr. Lungsang Zeliang, Professor, Department of Education, Nagaland University and that it has not been previously submitted for the award of any degree at any University to the best of my knowledge. I duly acknowledge all the sources and quotations used in this thesis with appropriate references.

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## CERTIFICATE

This is to certify that Mr. Hemanta Kumar Baruah, bearing Registration No. 765/2017, a Ph.D Research Scholar in the Department of Education, Nagaland University, Kohima Campus, Meriema, has completed his thesis entitled, **"VOCATIONAL INTEREST OF CLASS-IX STUDENTS OF LAKHIMPUR DISTRICT OF ASSAM : A COMPARATIVE STUDY"**, under my supervision and guidance. The facts reported in this Thesis have been collected first hand by the investigator and other sources whatever used, have been duly acknowledged to the best of my knowledge. Furthermore the Thesis has not formed the basis for the award of any degree in any other University or Institution.

The Thesis is fit for submission and I recommend that it may be placed before the examiners for evaluation.

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## **Chapter – 1**

# **INTRODUCTION**

### **1.1.1. INTRODUCTION TO ASSAM**

Assam is one of the fast developing states of India which is located at the North East direction of the country. The state is known as the gateway to North East India. The state comprises of thirty three Districts and Dispur is its capital.

Assam is a state of multi-ethnic societies. Based on the geographical location, the various ethnic groups located at different corners of Assam, symbolize a different social custom and culture. There are different oldest tribal communities, such as Mongoloids, Dravid and Australoids in the state. A total of forty five languages including some dialects are spoken by various communities of Assam. The State is the core of the North-East region of India and it provides focal points of business, transport and communication lines for serving its neighbouring states.

### **1.1.2. THE GEOGRAPHY OF ASSAM**

Assam is situated at the heart of North East of the Indian subcontinent. It expands from 89° 42' E to 96° E longitude and 24° 8' N to 28° 2' N latitude, covering an area of 78,438 km<sup>2</sup>. It is located about 79.5m above the sea level.

Assam is surrounded by Arunachal Pradesh, Nagaland and Manipur on the east; West Bengal, Bangladesh and Meghalaya on the west; Bhutan and Arunachal Pradesh on the north and Meghalaya, Tripura and Mizoram on the south. Assam is linked with the rest of Indian Territory by a narrow corridor at West Bengal which runs for 56 kilometers below the foothills of Bhutan and Sikkim. Assam also shares international borders with Bangladesh and Bhutan.

### **1.1.3. CLIMATE OF THE STATE**

Assam is known as a land of high rainfall with lush greenery. The percentage of wetlands available in the state is high compared to other states of the country. Assam is temperate at 35–38 °C in summer (maximum) and winter at 6–8 °C (minimum) with the "tropical monsoon rainforest climate" experiencing heavy rainfall and high humidity.

### **1.1.4. POPULATION OF ASSAM**

As per Census of India, 2011, the total population of Assam is 3,12,05,576. The population density stands at 398 per square kilometer. Sex ratio is 958 females against 1000 males.

### **1.1.5. NATURAL RESOURCES OF ASSAM**

Assam is known particularly for its Tea, Silk and for its rich biodiversity. There are some natural resources like coal, natural gas, petroleum, limestone and other minerals namely, sillimanites, magnetic, kaolin, feldspar etc. available in the State. In the western part of the State, a small quantity of iron-ore is available. The State has vast fertile valleys, numerous rivers, dense forests and lofty hills.

Assam is the habitat of different wild animals and numerous species of birds and butterflies. The State is world famous for its one-horned rhinoceros. It provides wild habitats to the Asian elephant. Some other endangered and threatened species are also available in the State including the Deohanh (white-winged Wood Duck), Bengal Florican, Black-breasted Parrot bill, White-rumped vulture, Red-headed vulture, Greater Adjutant, Rufous-necked hornbill, Jerdon's Babbler, Bengal tiger, Pygmy hog, Gaur, Wild buffalo, Indian hog deer, Golden Langur, Hoolock gibbon, Capped langur, river dolphin, python, Brahminy river turtle, Asian forest tortoise, Black pond turtle and Assam roofed turtle. Assam has the

largest population of Wild Buffalo in the world. The state is also known for its exotic orchids. Around 820 species of birds are available in the State. Assam is also known for its Sal Tree forests, bamboos, canes and wooden products.

There are some UNESCO World Heritage sites in the State, such as Kaziranga and Manas; due to which in now a days, the State is becoming increasingly a popular destination for wildlife tourism.

#### **1.1.6. ECONOMY OF ASSAM**

In the year 2013-14, the Gross State Domestic Product (GSDP) of Assam showed a growth of 5.87% at constant prices (2004-05). The GSDP of the State at current prices during 2012-13 (rough estimate) was 12.56%. As per advance estimates for 2013-14, the per capita income had shown a growth rate of 4.63 percent at constant prices and 14.53 percent at current prices in 2013-14 over the previous year in Assam.

Since 2006-07, the debt position of Assam has also shown considerable improvement. The Debt GSDP ratio came down from 30.83% in 2005-06 to 18.52% in 2012-13. Similarly, the ratio of interest payment to total revenue receipts declined from 18.62% in 2003-04 to 6.87% in 2012-13.

Assam is richly endowed with mineral resources. The performance of Mining Sector during the year 2009-10 was observed as satisfactory as compared to previous year. Apart from Natural Gas (utilized) the all other major minerals Coal, Petroleum (Crude) and Limestone of the State have shown upward volume in production during the year as reported by the Indian Bureau of Mines, Government of India. The Index of Mineral Production was worked out at 100.99 in 2009-10.

Among the eight states of the North Eastern Region, Assam is the most industrially advanced state. There are several large, medium and small scale industries based on the resources like agriculture, forest and mineral. Two main large scale industries are OIL and Natural Gas which make up 50% of India's on-shore production and Tea which make up 53% of all India production. Papers, cement, Petrochemical are some other industries of Assam.

The production of rice was targeted at 61 lakh metric tons in the year 2013-14. Emphasis is being given for achieving self-sufficiency in production of pulses and oil seeds under 'Mission Double Cropping'. Ongoing schemes for construction of rural go-downs and cold storages were being continued in the year 2013-14.

Out of total geographical area of 78.44 lakh hectares, the ultimate Gross Irrigation Potential (Annually Irrigable Area) is estimated at about 27 lakh hectares, which constitutes 66.06 per cent of the Gross Cropped Area.

Assam has ample scope for Bamboo based industry like Paper manufacturing industry. Under the National Bamboo Mission, it was proposed for plantation of selected species of Bamboo in the State in an area of 1, 76,000 Hectares, as a raw material for Bamboo based industry. Special emphasis is being given on 'Firm to Market' programme for the benefit of small and marginal farmers.

Sericulture a major cottage industry of the State is practiced in more than 10,500 villages and provides employment to 2.6 lakh families. Assam has the monopoly in production of Muga, the Golden Silk in the world and 99% of Muga Silk is produced in Assam. Assam has also achieved the right of "Geographical Indication" in Muga Silk.

The power supply position in the State was not much encouraging during the past several years. For better improvement of the power supply position in the State, various projects have been undertaken and are in progress.



The Government is working towards alleviation of social and economic problems caused by large scale unemployment and it is determined to tackle the issue with a two pronged attack, firstly by creating employment opportunities and secondly by making the youth employable in a variety of vocations.

Though the State finances are not very sound and stable for about last ten years, the Planning Commission and the successive Finance Commissions commended the state for excellent fiscal management.

### **1.2.1. A BRIEF PROFILE OF LAKHIMPUR DISTRICT**

The name of the District 'Lakhimpur' was come from the word 'Lakshmi', one of the Hindu Goddess of Wealth and Prosperity. The second part of the word 'Pur' has double meanings - first one is 'Full' which means it is 'Full of Paddy'. The second meaning of 'Pur' is 'City', and therefore 'Lakhimpur' means 'City of Wealth and Prosperity'.

Lakhimpur district used to have several other districts of Arunachal Pradesh within its fold and was known as the Lakhimpur Frontier Tract. After independence, the district was comprised of the present Dibrugarh District, Tinsukia District and Dhemaji District. Its headquarters was at Dibrugarh.

In 1976, Dibrugarh district was separated from Lakhimpur District. Again Dhemaji District was also separated from Lakhimpur District in the year 1989.

Lakhimpur is one of the administrative districts of total 32 districts in the state of Assam. The district has three sub divisions – Dhakuakhana, Bihpuria-Narayanpur and North Lakhimpur. The district headquarter is located at North Lakhimpur.

### **1.2.2. Geography**

The exact location of the district is 26.48' and 27.53' northern latitude and 93.42' and 94.20' east longitude (approx.). Lakhimpur district occupies an area of 2,277 square kilometers.

Lakhimpur district is bounded by Siang and Papumpare District (Arunachal Pradesh) on the North and by Dhemaji District and Subansiri River on the East. Similarly, on the southern and western sides there is Majuli Sub Division of Jorhat District and Gohpur sub division of Biswanath District respectively.

### **1.2.3. Demographics**

According to the Population Census, 2011, the total population of Lakhimpur district is 10,40,644 numbers where males comprise of 5,29,484 and females stand at 5,11,160 numbers while Sex ratio is 965. The total population of the District constitutes 3.34 % of the total population of Assam. The density of population of Lakhimpur district is 457 numbers per square kilometer. The average literacy rate of Lakhimpur stands at 78.39 percent. The gender literacy rates are 84.66 percent for males and 71.91 percent for females.

### **1.2.4. Economy**

Economy of Lakhimpur District is mainly based on agriculture. Major crops are rice, tea, mustard, sugarcane, bamboo etc. Small numbers of Small Scale and Medium Scale Industries are located in the district. The ongoing Lower Subansiri Hydel Project (2000 MW) is a ray of hope for the industrial sector in the district.

## **1.3. SECONDARY EDUCATION IN INDIA**

The secondary education as a critical segment of the school education has never been properly positioned in the policy-planning process in India since independence. While in British India, secondary education was promoted through favourable colonial development policies and community initiatives. It was neglected in free India because of relatively high political commitment for compulsory level of education and higher and professional education. Moreover, even though there has been visible quantitative expansion of secondary education (mainly as a response to increased voluntary social demand), the sub-sector is yet to align itself to the changing context of schooling. In fact, little thinking has gone into developing secondary education to discharge effectively its social and individual functions.

Keeping in view the changing development context and as a logical extension of the policy of Universal Elementary Education (UEE), the central government shifted its policy emphasis to some extent, towards development of secondary education during the Tenth Five-Year Plan. The Working Group on Secondary Education for the Tenth Five-Year Plan (2002-07) suggested the Central Government for providing support to states in areas of access, equity, quality improvement, Information and Communication Technology (ICT), inclusive education and vocational education. Further in 2005, the Central Advisory Board of Education (CABE) accordingly emphasized the provision of high quality secondary education to all Indian adolescents up to the age of 16 years by 2015 and up to the age of 18 years by 2020 (i.e. universalization of secondary and higher secondary education).

The recommendations of CABE Committee (2005) basically molded the development priorities in secondary education during the Eleventh Plan period (2007-2012). The strategies envisioned for the development of secondary education during 11<sup>th</sup> Five Year Plan included: (i) to reorganize the school system as 5+3+2+2 and expand the network of secondary school, (ii) stimulate the Public-Private Partnership (PPP) mode for leveraging private investment for

spreading out of secondary schooling, (iii) make sure the quality of secondary education with key emphasis on English, science and mathematics, (iv) promote comprehensiveness in the secondary education by demand-side financing strategies, (v) introduce Information and Communication Technology in each government and government funded/ aided schools, (vi) implement the National Curriculum Framework, 2005, (vii) carry out the organizational reform in school management.

To accomplish those targets, different educational programmes, schemes including Rastriya Madhyamik Shiksha Abhiyan are under execution in secondary level all over the country. The main goals of Rashtriya Madhyamik Shiksha Abhiyan, which was launched in April, 2009, are to universalize the access to and improve the quality of secondary education in the country. By this way, the motto of RMSA is to brand the secondary education of good quality accessible as well as affordable to all the young people.

#### **1.4 A BRIEF HISTORY OF SECONDARY EDUCATION IN ASSAM**

Secondary education in Assam was started in the year 1835. At the beginning and as per recommendations of the General Committee of Public Instruction, the Commissioner of Assam, Captain Jenkins started one English school at Gauhati in 1835 which was known as ‘Guwahati Seminari’. Later the school was renamed and till now the same is known as the present Cotton Collegiate School at Panbazar, Guwahati. Another high school was established in 1841 at Sibsagar, which is presently known as the ‘Sibsagar Government Higher Secondary school’.

In 1874 when Assam was separated from Bengal, the Department of Education was formed and a Director of Public Instruction was appointed. After some years, a separate Department under the Director of Public Instruction was created in Assam and then the environment for development of education in Assam was



established. Till then the Matriculation examination was conducted by the Calcutta University since the High Schools in Assam were affiliated to the Calcutta University.

In 1948, the Gauhati University was established at Guwahati and thereafter the whole responsibility of controlling the academic matters of secondary stage was entrusted to the Gauhati University.

After 1953, the eleven-year school course was introduced in Assam as per recommendations of the Secondary Education Commission (1952-53). All the Schools were then upgraded from 10 years' High school pattern to 11 years' higher secondary pattern by converting some schools to multi-purpose schools. Besides, in 1961, the Government of Assam passed the Secondary Education Act which resulted in the establishment of the Board of Secondary Education, Assam in 1962. Accordingly, the Board of Secondary Education took the charge of controlling and re-organizing secondary education in Assam.

Again as per recommendation of Kothari Commission (1964-66), the Board of Secondary Education, Assam, introduced the 10+2+3 pattern and adopted the revised curriculum structure from the academic session 1973-74. During that period, the Board of Secondary Education, Assam had continued both the 10 years' of secondary and 12 years' of higher secondary course.

The Assam Higher Secondary Education Council was established in the year 1984 to which the whole responsibility was entrusted to control the Higher Secondary Education of Assam.

In May 1986, the National Policy on Education (NPE) was adopted in Indian Parliament. The NPE proposed a well-planned and a systematic programme of vocational education at higher secondary level, i.e. the +2 stage. Accordingly in Assam also, vocational courses were made available for engineering as well as

technical vocation, paramedical services, health, agriculture, social services, home science, marketing etc. Besides, it was directed that Vocational courses had to cover 10 percent higher secondary students by 1990 and 25 percent by 1995.

## **1.5 PRESENT STATUS OF SECONDARY EDUCATION IN ASSAM**

Since 2009-10, the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) has been under implementation in Assam with the vision to make secondary education with good quality available, accessible and affordable to all the young persons in the age group of 15-16 years (i.e. Class- IX & X). The scheme envisages providing a secondary school within 5 kilometers of habitation. Besides, its objectives include improving the quality of education which is being imparted at secondary level by making all secondary schools conform to the prescribed norms, removing gender concerns, removing socio-economic as well as disability barriers, providing universal access to secondary education latest by 2017 (i.e. by the end of 12<sup>th</sup> Five Year Plan) and achieving universal retention latest by 2020.

Moreover the centrally sponsored scheme of Vocationalisation of Secondary Education (2011) which was subsequently redesigned as Vocationalisation of Secondary and Higher Secondary Education (2014) is being in operation in Assam. The scheme envisages towards selection of different vocational courses based on the assessment of manpower requirements and it also provides financial assistance for imparting vocational education in Classes IX-XII in mainstream schools with a strong partnership with industry/employers. The components which include strengthening the existing vocational schools as well as the establishment of new vocational schools by State Governments, assistance to the vocational schools under Public Private Partnership mode, capacity building of teachers of vocational education and development of the competency based modules to each individual vocational course. Assistance is also to be provided to NGOs for running short term innovative programmes on vocational education.

The current status of secondary and higher secondary education in Assam can be viewed from the tables furnished below:

**Table 01 :** No. of Secondary & Higher Secondary Level Schools in Assam during 1995– 2015

Year	No. of High Schools	No. of Higher Secondary Schools/ Junior Colleges/ Degree College with +2
1995-96	3440	607
2004-05	4629	745
2010-11	4706	1110
2011-12	4730	1205
2012-13	5713	1577
2013-14	5993	1633
2014-15	6579	1728

*Source : SEMIS & Statistical Handbook, Assam, 2006.*

**Table 02 :** Performance of in HSLC during 2011 – 2017

During the Year	Pass Percentage
2011	70.38
2012	69.63
2013	70.78
2014	61.42
2015	62.20
2016	62.79
2017	47.94

*Source: Annual Reports of SEBA*

**Table 03 :** Performance in Assam Higher Secondary Examination during 2011 to 2017

Year	Stream	Pass Percentage
2011	Arts	73.70
	Science	86.39
	Commerce	75.49
	Vocational	96.62
2012	Arts	70.23
	Science	85.58
	Commerce	81.17
	Vocational	77.59
2013	Arts	68.74
	Science	83.60
	Commerce	77.60
	Vocational	79.23
2014	Arts	73.91
	Science	85.31
	Commerce	82.70
	Vocational	73.78
2015	Arts	74.07
	Science	86.76
	Commerce	81.82
	Vocational	79.45
2016	Arts	79.92
	Science	90.96
	Commerce	86.01
	Vocational	83.98
2017	Arts	73.16
	Science	86.24
	Commerce	82.72
	Vocational	79.42

*Source: Reports of AHSEC, 2011, 2012, 2013, 2014, 2015, 2016, 2017*

## 1.6. VOCATIONAL EDUCATION SCENARIO IN ASSAM

The statistics shows that only 3 to 4 % of the manpower in the age group of 15-30 was formally skilled during the course of study, whereas approximately 85 to 90 % of employment opportunities or vocations require some specific job related skills which were not actually being provided in the schools and colleges.



To achieve this, the country or the State needs a flexible and sound education system to deliver the foundation for learning, to develop core capabilities and skills and to provide further means for attaining the lifelong learning. To cope up with the global educational environment, the prevailing education system must be accustomed with by promoting the creativity, facilitating training and cultivating quality of education.

In Assam, vocational education was started from 1873 and this information was search out by Chakravarty (1989). At that time, classes on surveying and carpentry were started only in Golaghat and Jorhat of Upper Assam. But this is the reality and Chakravarty (1989) also agreed with that it was the only Woods' Despatch, 1854 which indicated the necessity of 'Practically useful education' for the people.<sup>1</sup>

During the transition i.e. from pre-independence to post-independence period, lots of changing took place in the elementary and secondary level of education where provisions were made available including basic education for skill development. To revamp the educational system as well as for better future of the youths, the State is constantly engaging with for generation of greater skills to increase the employability and facilitate more scope for greater utilization of human resources.

#### **1.6.1. System of Vocational Education in Assam**

The system of vocational education in Assam was framed based on the guidelines of Centrally sponsored scheme namely, Vocationalisation of Secondary Education (2011) and accordingly, Classes IX and X were earmarked for the programme. Later the scheme was revised in 2014 by renaming it as Vocationalisation of Secondary and Higher Secondary Education. With this effect, Classes XI and XII have also been included in addition to Class IX and X under the vocational education programme of the State.

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<sup>1</sup> Chakravarti, A (1989) History of Education in Assam. New Delhi. Mittal Publications

## Secondary Schools

For implementing the National Vocational Education Qualifications Framework (NVEQF) in Assam, under which the system of vocational education is initiated in Govt. Secondary schools, the State Government in collaboration with Pearson India has worked out suitable strategies.

For implementing the National Vocational Education Qualifications Framework in the State, only 10 nos. government schools were selected at first phase under the Public - Private - Partnership mode in association with Pearson. Subsequently, the number of such schools goes up by 70.

**Table 04 :** Number of Schools Selected for Vocational Education under NVEQF

Sl.No.	District	Number of Schools
1	Barpeta	3
2	Bongaigaon	2
3	Cachar	3
4	Darrang	2
5	Dhemaji	1
6	Dhubri	2
7	Dibrugarh	3
8	Goalpara	1
9	Golaghat	3
10	Hailakandi	2
11	Jorhat	5
12	Kamrup	10
13	Karbi Anglong	2
14	Karimganj	3
15	Kokrajhar	1
16	Lakhimpur	2
17	Morigaon	3
18	Nagaon	6
19	Nalbari	3
20	Sibsagar	4
21	Sonitpur	5
22	Tinsukia	3
23	Udalguri	1
	Total	70

*Source : Directorate of Secondary Education, Assam*

### Industrial Training Institutes :

The mainstay of vocational education system in Assam is the Industrial Training Institutes. There are total 28 nos. of Government and 13 nos. of Private Industrial Training Institutes in the State. The list of Government Industrial Training Institutes located in Assam is furnished below:

**Table 05 :** List of Govt. Industrial Training Institutes (ITI) in Assam :

Sl. No.	Name of ITIs	Sl. No.	Name of ITIs
1	Barpeta ITI	15	Karimganj ITI
2	Bhergaon ITI	16	Kokrajhar ITI
3	Bongaingaon ITI	17	Lakhimpur ITI
4	Dhansiri ITI	18	Majuli ITI
5	Dhemaji ITI	19	Mazbat ITI
6	Dibrugarh ITI	20	Morigaon ITI
7	Diphu ITI	21	Nagaon ITI
8	Gargaon ITI	22	Nalbari ITI
9	Goalpara ITI	23	Silchar (W) ITI
10	Guwahati ITI	24	South Salmara ITI
11	Guwahati (W) ITI	25	Srikona ITI
12	Haflong ITI	26	Tezpur ITI
13	Hailakandi ITI	27	Tinsukia ITI
14	Jorhat ITI	28	Tinsukia (W) ITI

*Source: Directorate of Employment and Craftsman Training, Assam*

Industrial Training Institutes located in the State, offers vocational based diploma courses at the post-matric and post-intermediate level. The Institutes offer various courses, like Draughtsman Civil, Wireman, Mechanic Electronic/ Diesel, Stenography, Electrician and many more.

In addition to the above Industrial Training Institutes, there are also few private Industrial Training Centers (ITC) in Assam which are functioning under the control of State Council of Vocational Training (SCVT).

**Table 06 : Number of Industrial Training Centers (ITC) under SCVT**

Sl.No.	Location	Number of ITC
1	Changsari	1
2	Dhemaji	1
3	Dudhnoi	1
4	Gohpur	1
5	Guwahati	7
6	Jorhat	3
7	Kokrajhar	2
8	Lakhimpur	1
9	Majuli	1
10	Morigaon	1
11	Nagaon	3
12	Nalbari	1
13	Rangia	1
14	Silchar	1
15	Tinsukia	1
	Total	26

*Source: Directorate of Employment and Craftsman Training, Assam*

### **The National Institute of Open Schooling (NIOS)**

The National Institute of Open Schooling also known as NIOS is an autonomous organization set up by Ministry of Human Resource Development. Earlier it was known as National Open School. Headquarter of NIOS is located at Noida, Uttar Pradesh. The Institute offers various vocational courses through open and distance learning mode all over India. In Assam also, this Institute serves as a medium of imparting vocational education in combination with the distance learning methods and hands-on-training.

There is some Accredited Vocational Institutions (AVI) under NIOS, Guwahati Region, which are presented below:

**Table 07 :** Number of Accredited Vocational Institutes under NIOS in Assam :

District/ Location	No. of AVIs
Cachar	3
Jorhat	1
Guwahati	2
Nagaon	1

*Source: Prospectus, National Institute of Open Schooling, 2011*

The National Institute of Open Schooling offers many vocational courses for example, Catering Management, Food Processing, Mechanic, Computer Science, Home Science, etc.

## **1.7. CONCEPTUAL FRAMEWORK**

According to Miles and Huberman (1994), “A conceptual framework explains, either graphically or in narrative form [both are much preferred], the main things to be studied – the key factors, constructs or variables and the presumed relationships among them” [Miles, M. B. & Huberman, A. M. (1994), - Qualitative data analysis: An expanded sourcebook (2nd ed., p 18). Thousand Oaks: Sage].

The conceptual framework is a tentative explanation or theoretical explanation of the phenomenon or problem and serves as the basis for formulation of research hypotheses. It consists of the investigator’s own position on a problem after his exposure to various theories that have bearing on the problem. The conceptual framework becomes the central theme, the focus, the main thrust of the study. It serves as a guide in conducting investigation.

### **1.7.1. CONCEPT OF INTEREST**

Interest is the direction of present time that has relation with the future. This is a group of attributes or characteristics of the direction and is considered as sign or

symbol towards possibilities. “Interest is present quality – which future outcome is considered as future statement.”<sup>2</sup>

Simply, the word interest refers to our likes and dislikes or attractions and aversions. It is a phenomenon of acceptance and rejection involved in the issue of likes and dislikes. In general it is very simple to define it; but whenever scientific considerations and implications are involved, it is very difficult to interpret the concept of Interest.

According to Holland (1985)<sup>3</sup>, the process by which interests develop starts with a preference for some activities over others, which then develops into strong interests, which then turns into certain competencies, which finally creates a personal disposition leading the individual to think and act in special ways.

Interest sustains effort and determines persistence in the pursuit of goals. Interest entails an enthusiasm and a consciousness that persists during the interval between the first encounter of a new percept and final attainment of the object (Herbermann, Pace, Pallen, Shahan, & Wynne, 1913)<sup>4</sup>. Thus, interest contributes to the engagement in a task or commitment to a goal until the objective is achieved (Sansone & Smith, 2000)<sup>5</sup>.

Interests supply something that is not disclosed by ability and achievement. If we recollect the distinction made between placement and guidance, it is clear that interest testing is concerned mainly with guidance.<sup>6</sup>

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<sup>2</sup> Remmers H.H. and N. L.Gage (1995); Educational Evaluation and Measurement, (New York : Harper and Brother), P. 85.

<sup>3</sup> Holland, J. L. (1985). Manual for the Vocational Preference Inventory. Odessa, FL: Psychological Assessment Resources.

<sup>4</sup> Herbermann, C. G., Pace, E. A., Pallen, C. B., Shahan, T. J., & Wynne, J. J. (Eds.). (1913). The psychology of interests. The Catholic encyclopedia (Vol. 8, pp. 75-76). New York: Gilmary Society.

<sup>5</sup> Sansone, C., & Smith, J. L. (2000). Interest and self-regulation: The relation between having to and wanting to. In C.Sansone & J. M. Harackiewicz (Eds.), Intrinsic and extrinsic motivation (pp. 341-372). San Diego, CA: Academic.

<sup>6</sup>HK Baruah. *A Comparative Study of Vocational Interest between Boys and Girls of IXth Grade Students*. International Educational E-Journal. Vol.II, Issue-III, 2013. P. 133.

#### Characteristics of Interests :

- i) Interests are important in their own right and they represent a trait distinctly different from other traits.
- ii) The role of interest is very significant than some other important individual traits in performance and achievement.
- iii) It also plays a key role for motivation towards certain goal.
- iv) Interest is based or shaped by heredity and environment.
- v) Interest is one of the traits of personality which is fairly stable.
- vi) Interest never remains permanently fixed.
- vii) Interest is a unique phenomenon or a trait of an individual.
- viii) Interest varies with age and it differs person to person.

#### **1.7.2. INTEREST TESTING**

The main objective of Interest testing is :

- i) To provide teachers and counselors with information about the students' preferences and aversions which will help them acquire better understanding of students and their problem;
- ii) To help the testees to identify and clarify their interests in terms of the demands of varied courses and careers and choose work and experiences consistent with their interests;
- iii) To enable teachers, counselors and parents to know the kinds and intensity of the testees interests and assist him to prepare his educational and vocational plans consistent with his interests;

- iv) To help channelize the energies of the youth in different directions; and
- v) To help in the selection of the right person for the right work and thus save individuals from frustration, unhappiness and disappointment.

*Different factors of Interest :*

There are seven interest factors as given by Guilford, (1965). These are:

- i) Mechanical : Here such activities are included which are manual or mechanical in nature and have less importance of thinking variable.
- ii) Business : In this category, works like business administration, business selling, business contract, verbal expression, social science and sensory satisfaction are included.
- iii) Scientific : This includes activities like scientific investigation, scientific theory, mathematical concepts, laboratory work, logical processes, precision in detail, precision and carefulness.
- iv) Aesthetic : This includes both aesthetic appreciation and expression. It includes interest in enjoyment of the graphic, literacy, dramatic and musical arts.
- v) Social : It includes verbal expression, control of others, office activity, responsibility, persuasion and welfare of others.
- vi) Clerical : It includes such activities as office work, number manipulation, precision, exactness and physical activity.
- vii) Outdoor : It includes outdoor activity, like agriculture, manual activity, construction as well as manipulation, farming, forestry, construction.

Major Interest and important occupations ---



- i) Mechanical : Under this category are included engineers, chemical, civil, electrical, mechanical, mining, teachers of engineering colleges, radio operator, aviator, building inspector, pilot engineer, plant manager, mine official, contractor, blacksmith, driller, electrician, electroplating and galvanizing worker, fireman, mason, carpenter, car driver, lens grinder, mechanics and repairmen, motion picture projectionist, plumber, shoe-maker, watch-maker, goldsmith, welder etc.
- ii) Business : All business workers, sales manager, stores manager, buyer, advertising agent, insurance official, contractor, lawyer, editor, information clerk, auctioneer, solicitor, stock and bond salesman.
- iii) Scientific : Chemist, pharmacist, meteorologist, physician and surgeon, psychiatrist, psychologist and curator.
- iv) Aesthetic : Actor, dancer, architect, artist, sculptor, curator, decorator, designer, draftsman and photographer.
- v) Beautician : Barber, dressmaker, tailor, engraver and painter.
- vi) Social : Clergyman, professor, librarian, physician and surgeon, social and welfare workers, teacher, religious worker, trained nurse, rehabilitation counselor, vocational counselor, personnel manager, athlete, employment worker, midwife, etc.
- vii) Clerical : Accountant, auditor, book-keeper, cashier, checker clerk, time keeper, mail carrier, stenographer, typist, telegraph and telephone operator, ticket collector.
- viii) Outdoor : Forest ranger, ship captain, guide (sight-seeing), all farmers-grain, fruit, poultry, gardener, nurseryman, fisherman, zoo keeper, light house keeper. (Kochhar, 2006, Reprint 2013)

### **1.7.3. CONCEPT OF VOCATION**

The term vocation, as advocated by Deighton (1971)<sup>7</sup>, is reserved for the occupation chosen and engaged in for a substantial period of time because it is appropriate to the individual's ability, interests, value derives, personality and achievement motivation. Vocation according to Super (1983)<sup>8</sup> is an activity pursued for its own shape with an objective other than monetary gain, although it may incidentally result in gain. Since vocation relates to the survival of human being, therefore it is a vital facet of human life.

### **1.7.4. VOCATIONAL INTEREST**

#### **1.7.4.1. Concept of Vocational Interest**

Vocational Interest is considered as an important factor as like as intelligence, attitude and ability for accomplishment in any profession. Vocational Interest is the mental state or attitude of a person that shows likes or dislikes towards some specific vocations which pays attentiveness in specific work, pays careful attention upon it or get attracted or like it and get satisfied with it.

Vocational Interest emerges due to physical or mental causes and is greatly influenced by the environment and heredity. The vocational interest of an individual is trained through and influenced by his family environment and surroundings from the very beginning of his childhood. With the change of time, some variations may occur with reference to the vocational interest of the person. But in one stage, his vocational interest to some extent remains constant.

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<sup>7</sup> Deighton, L.C. (1971). Encyclopaedia of educational research (Vol.11). USA: The MacMillan Company and the Free Press.

<sup>8</sup> Super, D.E. (1983). The history and development of vocational psychology: A personal perspective. In W.B. Walsh & S.H. Osipow (Eds.), Handbook of vocational psychology. Hillsdale, NJ: Erlbaum.

The importance of vocational interest is undeniable in students' life. For making them atleast self-dependent, their vocational interests need to be identified for suitable assignments. Moreover, for developing students' personality, special importance must have to pay towards their vocational interest because vocational interest plays significant role in formation and development of personality.

Considering the facts stated above, it is pertinent to see and analyse one's Vocational Interest from the educational, vocational and psychological point of view. If a person has no interest in certain activity or vocation then there is a possibility of getting failure in the area even though the person has higher intelligence, aptitudes or whatever it may be.

#### **1.7.4.2. Nature of Vocational Interest**

Interest has been the object of much attention from vocational psychologists and educationists. Scholarly books were written and published besides a number of monographs during the past three decades emphasizing interest elements pertaining to vocations and their selections etc. while some psychologists and educationists, specialists have paid less attention to interest element.

As for definition, there have been a number of interpretations on the term 'interest' depending upon different methods of obtaining data. However it may be attached to expressions of specific interests which clearly vary with the maturity of individual. Vocational Interest pertains to preference in a particular vocation with strong infinity to it with readiness for job. What a person wishes to do reflects his interest. Careful observation of one's free choice is a must to select a particular vocation in which the person has interest.

#### **1.7.4.3. Areas of Vocational Interest**

Vocational interest covers a broad area in the field of education and psychology. It deals with the interest in different vocational fields such as Social, Literary, Scientific, Persuasive, Artistic, Commercial, etc.

According to Super (1949)<sup>9</sup>, there are has three (3) types of Vocational Interest, viz. Clear Vocational Interest, Apparent Vocational Interest and Test Vocational Interest. The Clear Vocational Interest presents clearly in any activity or any business verbally. The Apparent Vocational Interest that presents the decision for participating in any activity or any business. Lastly, Test Vocational Interest draws the imaginary estimates and measures the variation in real test and in different vocational fields such as, engineering, medicine, sports, art, language, business etc.

#### **1.7.4.4. Methods of Measuring Vocational Interest**

Considering the importance of vocational interest in human's life, different methods have already be innovated by the educationists, psychologists and guidance personnel for measuring the vocational interest of the people or the students.

One of the simple methods of measuring vocational interest is the verbal or speech mode through which the person or the student is asked to express his interest or his likes and dislikes verbally.

The second method of measuring vocational interest is through the observation of the behavior of the person or the student. In this method, the investigator observes the outward behavior of the person and noted it down for analysis taking into account all the factors which may affect the behavior of the person.

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<sup>9</sup> Super, D. E. (1949). *Appraising Vocational Fitness By Means of Vocational Tests*. New York: Harper.

The third method of measuring vocational interest is through the achievement test. Since the ability is related with vocational interest, so students' vocational interest can also be measured through different achievement test.

The fourth and the last method of measuring vocational interest is through the vocational interest research which is conducted by the experienced researcher following scientific and objective way applying self-prepared or standardized test.

#### **1.7.4.5. Importance of Vocational Interest Measurement:**

Selection of career or vocation is an integral part of life and it depends upon vocational Interest. Setting up a right goal is the reflection of self-identification that is derived from the best efforts. According to Ginzberg<sup>10</sup>, the selection of vocation is a time consuming process which lasts for quite a long time. Individual's life is influenced by his profession. Selection of vocation is very much important in life (Ginzberg, 1972).

In India, it is mainly the parents who decide the career path of their children. Their wishes play an important role in choosing the career of their children. The parents are often remain tensed than their children while making selection of the career of their children in different fields such in arts, science, engineering, medical or technical etc.

The career choosing decision taken by the parents are generally accepts by their children. In a country like India, the parents even never thinks for any counselling service for their children while making selection of vocation or career for their children or students. Some parents may probably think about it but the number will be very less. But for future success, students should select their own career or vocation according to their interest and ability.

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<sup>10</sup> Ginzberg, E. (1972). Toward A Theory of Occupational Choice: A Restatement. The Vocational Guidance Quarterly, 20, pp. 169-176.

While making selection of vocation or career, it is very essential to look into the interest, aptitude, intelligence and necessity of the students. There is every possibility that students with different levels of intelligence perceive the vocations differently and they make different choices. Similarly, the students those have higher ability and achievement would show higher level of vocational aspiration which lead for preparing themselves more successful in specific the vocation or career than those less bright, if all other conditions viz. motivation, consciousness, responsibility, etc., remain same.

Moreover, there is a need for matching the people and their work and for which a well informed and conscious career decision is very important. This demand supply matching in career field may itself lead for optimum utilization of educational resources. Besides, this may also develop the level of satisfaction of the workers and lead the employment stability. For achieving this goal, guidance professionals may play vital role at this stage. They can sort out different vocational fields or career options available in the market, trace out students' interest and suggest suitable vocations based on the interest of the students. For tracing out students' interest, it is inevitable to measure to measure the vocational interest of the interest.

#### **1.7.5. VOCATIONAL EDUCATION**

In short, vocational education refers to the education that equips or prepares the students for different vocations such, art, craft, music, agriculture etc. with some specific hands on skills related to the specific type of vocation. Actually due to the wake of criticism towards the traditional bookish education, the concept of vocational education is emerged in the globe with the aim to provide skill based, productive and life oriented education.

As defined by United Nations Educational, Scientific and Cultural Organization (UNESCO), “Vocational education is a comprehensive term embracing those

aspects of educational process that involves, in addition to general education, the study of technologies, related sciences and acquisition of practical skills, attitudes, understandings alongwith the knowledge relating to occupation in various sectors of economic as well as social life. Such an education would be the integral part of general education and the means of preparing for an occupational field and also an aspect of continuing education”.<sup>11</sup>

Besides, the report of Planning Commission (2001) gave stress on the need to increase the vocational contents in courses for enhancing marketable skills of the students, emphasis on upgrading the Industrial Training Institutes as a way of contributing and enhancing the skills in labour force. The report summarized by giving stress that the rate of growth of the economy never be accelerated especially in labour intensive sectors unless there is a lack of skills in the labour force. Therefore, the vocational education is required to be linked to the labour market.<sup>12</sup>

The report on vocational education of Department of School Education and Literacy (2012) under Ministry of Human Resource and Development, while recognizing the emerging shortages in the reservoir of skilled and trained manpower in the country, recalled that one of the goals of the Kothari Commission (1964-66) was to vocationalise education. To achieve this goal, the country has a number of vocational education providers at various levels. Education is a concurrent subject in the country and provision of vocational education constitutes the responsibility of both the Centre and State.

Similarly, the report of Ernst & Young-FICCI (2009) termed vocational education and training as a game changer of the Indian Higher Education system. The report reveals vocational education institutes as those institutes and polytechnics that award certificates and diplomas after a course duration ranging from three months to three years. Besides, the report acknowledges the new vistas in the horizon of

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<sup>11</sup> Sharma, R S & Sharma, R K ( 1996): Problem of Education in India. New Delhi. Atlantic Publishers and Distributors.

<sup>12</sup> Planning Commission (2001) Report Of The Task Force On Employment Opportunities. New Delhi. Government Of India.

vocational education in some areas like Aviation, Hospitality and Travel and Tourism along with the conventional vocational education delivery mechanisms like ITIs and ITCs. The report also favours private players' entry into the vocational education scenario in India.<sup>13</sup>

Being a part of mainstream India, Assam can also endeavor for and be benefitted by vigorously engaging in the skill building process as there is a huge shortage of skilled manpower in the state to mitigate the gap between the demand and supply in job market.

#### **1.7.6. GUIDANCE AND COUNSELLING**

Guidance is a personalized assistance which is given or made readily available by the experienced and professionally qualified person. This is an organized professional activity which dates back to 1905 and the main credit goes to Frank Parsons of Boston, U.S.A. Parsons after end of his career, actively engaged himself in the field of social work in a Boston settlement house where he worked directly with the young people struggling to find out work for themselves.

At first, the emphasis was mainly on vocational guidance and training. But gradually, it widens to recognize the importance of educational guidance as well.

In India, the organized form of Guidance activity started in 1940s. The Calcutta University enjoys the privilege of being the first Indian University introducing guidance as a section in the Department of Applied Psychology in 1938. At first, the main aim was to conduct research in the field of educational and vocational guidance. Later, the Department also started the work on occupational information when jobs were classified into four categories according to the level of intelligence and the type of abilities required for them.

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<sup>13</sup> Ernst & Young-FICCI (2009) Making the Indian Higher Education System future ready. FICCI Higher Education Summit 2009.(Online)Available at <http://education.usibc.com/wp-content/uploads/2010/09/EY-FICCIreport09 Making-Indian-Higher-Education-Future-Ready.pdf> (Accessed on 27-02-2014)



#### **1.7.6.1. Concept of Guidance :**

In psychology, Guidance refers to the personal advice or service rendered by a psychologist to another person.

According to Jones, 'Guidance involves personal help offered by someone which is designed to assist or support a person in deciding where he wants to go, what he wants to do, or how he can best accomplish his purpose; it assists him in solving problems that arise in his life. It does not solve problems for the individual but helps him to solve them. The focus of guidance is the individual, not the problem; its purpose is to promote the growth of the individual in self-direction.'<sup>14</sup>

Characteristics and Nature of Guidance :

- i) Guidance is promotion of the growth of the individual in self-direction.
- ii) Guidance is the process of helping the individual in affecting changes in him.
- iii) Guidance is helping the individual himself through his own efforts.
- iv) Guidance is assisting an individual to find his own position.
- v) Guidance is helping the individual to establish harmonious relationship.
- vi) Guidance is assisting the individual to adjust himself.
- vii) Guidance is helping the individual to make appropriate educational, vocational and personal choices.
- viii) Guidance programme is organized.
- ix) Guidance consists of specialized services.
- x) Guidance helps an individual to identify and develop his potentialities and talents.

#### **1.7.6.2. Concept of Counseling :**

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<sup>14</sup> Arthur J. Jones. *Principles of Guidance*, New York, McGraw Hill Book Company, 1951, p.71.

Counseling is called the crux, heart, essence, pivot or core of all guidance programmes. The success or failure of the guidance programme is determined by counseling service. According to Webster's Dictionary, - 'Counseling means consultation, mutual interchange of opinion, deliberating together'. According to Carl Rogers, - 'Counseling is a series of direct contacts with the individual which aims to offer him assistance in changing his attitudes and behavior'.

#### **1.7.6.3. Vocational Guidance**

Vocational guidance may be defined as a process which is intended to help people or students to cope with the problems relating to occupational choices, plans and adjustments. According to the doctrines of National Vocational Guidance Association, "the vocational guidance is a process of helping individual while choosing or selecting an occupation, prepare for it, move into and progress in it. It is concerned primarily with helping individuals make decisions and choices involved in planning a future and building a career-decisions and choices, necessary in effecting satisfactory vocational adjustment."

Purpose of Vocational Guidance :

- i) To enable the individual to discover information about themselves, their abilities, interest, ambitions, need, limitations and their causes.
- ii) To provide information about their environment, the advantages and disadvantages of different occupations and educational courses, the qualifications required for entry into them and the range of opportunities available.
- iii) To provide a platform where the students can judge and remain alert in future in decision making points.
- iv) To provide counselling in order to promote self-understanding and develop educational and occupational plans.
- v) To provide a placement service to help the students to implement those plans.

- vi) To provide a follow-up service to help the students, if necessary, when faced with future decision making situations.

There are lots of studies which have already been conducted abroad as well as in India in the area of Vocational Interest, Vocational Aspiration and Vocational Guidance. Since, the 'World of Work' is day by day growing more and more complex, so it is not possible either for the parents or for the students to be fully acquainted with those factors without any systematic help from an outside agency to plan for their better future.

## **1.8. SIGNIFICANCE OF THE STUDY**

Interests supply something that is not disclosed by ability and achievement. They point to what the individual wants to do; they are reflections of what he considers satisfying. If we recollect the distinction made between placement and guidance, it is clear that interest testing is concerned mainly with guidance. Its primary purpose is to help individuals or students to identify vocations or vocational subjects that would be interesting and satisfying to them.

The present Topic is selected to analyze and compare the interest of boys and girls towards different vocations as well as vocational subjects.

Forcing students to read courses by parents, friends and some higher institutions has placed under pressure on many of them making them jump from one course to another. Many students have neither the understanding of themselves nor the diversity of vocational interest with the necessary prerequisites for jobs.

Under the Vocationalisation of Secondary and Higher Secondary Education – a centrally sponsored scheme (2014) of Government of India, Vocational Education from Class-IX onwards i.e. from secondary level, has already been introduced. All the schools come under this scheme would require offering need based

modular vocational courses in some identified vocations and in the way which would provide desirable flexibility of choice to the students. The States and Unions Territories should select the courses based on the national and local assessment of skill requirements, availability of essential resources and considering the prevalent and forthcoming employment opportunities, interest and aspiration of the students, etc.<sup>15</sup>

Regarding Vocational Guidance and Counseling, the scheme laid importance on organizing specific counseling drives by involving suitable experts in the schools.

Vocational interests were viewed as a key aspect of occupational selection, satisfaction, and performance. Early attempts to understand and assess individual differences in vocational interests occurred in conjunction with initial work in the area of intelligence and ability assessment (Dawis, 1992). The measures of vocational interest help to find out the choices of the students in different vocations and their career prospects. It also helps to design student centred as well as choice based course curriculum. Besides, it is also considered as a tool for better vocational guidance.

At present, there are many subjects in schools and colleges that students can opt for. They need guidance and counseling to choose subjects of his/her interest which will help in choosing appropriate vocation. The difference of vocational interest among boys and girls has been of utmost curiosity. The database of the present research will be useful to teachers, parents and counselors to play their roles while choosing vocational subjects or career choices by their students. It will enable the students or the learners to manage and plan their learning and work pathways in accordance with their life goals.

Besides, using vocational interest measurement in studying vocational choices of the students does permit to observe how far students' interests vary from one

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<sup>15</sup> MHRD, Dep'tt. Of School Education & Literacy, GOI, Notification on 'Vocationalization of Secondary and Higher Secondary Education' dated 12 Mar'2014.

another and clear understanding how the various nature of works are sorted out in accordance with individual characteristics.

### **1.9. STATEMENT OF THE PROBLEM**

The problem selected is stated as “Vocational Interest of Class-IX Students of Lakhimpur District of Assam : A Comparative Study”. The problem has been selected on the basis of a felt need particularly in the state of Assam in the area of Vocational education and skills especially for the students of secondary stage. There is a need to help individuals or students to identify vocations or vocational subjects that would be interesting and satisfying to them and enable them to become contributing members of society. Priority has also been given by the policy makers for introduction of different vocational as well as skill development programmes in secondary as well as higher secondary stage. Therefore the investigator considered it important to measure the students’ interest at the entry stage of secondary level so that students’ interest in diverse vocational fields can be identified and which would enable them to make sound vocational choices. At the same time, it is intended to compare i.e. to find out the similarities and differences of the interest of boys and girls in general and as per their locale (i.e. rural-urban) in ten different vocational fields. This kind of information is expected to help policy makers and others in the field to make sound policies in the area of vocational education and testing.

### **1.10. OPERATIONAL DEFINITION OF TERMS USED**

For the purpose of the present study, the following terms have been defined as given :

1. **Comparative Study** : An undertaking that involves comparison, a statement or estimate of similarities and differences between two variables; in this case,

between boys and girls in general and between rural boys and girls and urban boys and girls

2. **Interest :** Interest is the feeling that prompts one to spontaneous activity. It is an expression of likes or dislikes. It is a motivating force that impels one to attend to a person, a thing or an activity.
3. **Vocational Interest :** It refers to the interest of a vocation (s) or relating to a vocation (s). In educational purpose, it refers to the interest of applied educational courses or relating to such courses which are concerned with the skills demanded by an occupation, a trade or a profession.

#### 1.11. OBJECTIVES OF THE STUDY

1. To compare the vocational interest, namely, in Literary, Scientific, Executive, Commercial, Constructive, Artistic, Agriculture, Persuasive, Social, House-held fields, between Boys and Girls of Class-IX in general and as per their locale (rural-urban).
2. To find out the subjects related to vocations in the present syllabus of Class-IX.
3. To find out the problems faced by schools in implementing Vocational Education.
4. To suggest measures to develop vocational interest among the students.
5. To suggest measures towards effective vocational guidance and counselling.

#### 1.12. HYPOTHESES

1. There is no significant difference between boys and girls in Literary interest.
2. There is no significant difference between boys and girls of rural areas in Literary interest.

3. There is no significant difference between boys and girls of urban areas in Literary interest.
4. There is no significant difference between boys and girls in Scientific interest.
5. There is no significant difference between boys and girls of rural areas in Scientific interest.
6. There is no significant difference between boys and girls of urban areas in Scientific interest.
7. There is no significant difference between boys and girls in Executive interest.
8. There is no significant difference between boys and girls of rural areas in Executive interest.
9. There is no significant difference between boys and girls of urban areas in Executive interest.
10. There is no significant difference between boys and girls in Commercial interest.
11. There is no significant difference between boys and girls of rural areas in Commercial interest.
12. There is no significant difference between boys and girls of urban areas in Commercial interest.
13. There is no significant difference between boys and girls in Constructive interest.
14. There is no significant difference between boys and girls of rural areas in Constructive interest.
15. There is no significant difference between boys and girls of urban areas in Constructive interest.
16. There is no significant difference between boys and girls in Artistic interest.
17. There is no significant difference between boys and girls of rural areas in Artistic interest.
18. There is no significant difference between boys and girls of urban areas in Artistic interest.

19. There is no significant difference between boys and girls in Agriculture interest.
20. There is no significant difference between boys and girls of rural areas in Agriculture interest.
21. There is no significant difference between boys and girls of urban areas in Agriculture interest.
22. There is no significant difference between boys and girls in Persuasive interest.
23. There is no significant difference between boys and girls of rural areas in Persuasive interest.
24. There is no significant difference between boys and girls of urban areas in Persuasive interest.
25. There is no significant difference between boys and girls in Social interest.
26. There is no significant difference between boys and girls of rural areas in Social interest.
27. There is no significant difference between boys and girls of urban areas in Social interest.
28. There is no significant difference between boys and girls in House-held interest.
29. There is no significant difference between boys and girls of rural areas in House-held interest.
30. There is no significant difference between boys and girls of urban areas in House-held interest.

### **1.13. DELIMITATIONS OF THE STUDY**

1. The study is restricted to vocational interest in ten (10) vocational areas only.
2. The study has been restricted to State Government and State Government's Provincialized Secondary and Higher Secondary Schools only.
3. The study has been restricted to the Class-IX students only.
4. The study has been restricted within the Lakhimpur District of Assam.



#### **1.14. CONCLUSION**

Though Assam is rich with its natural resources and there are lots of potentialities, still there is a huge problem of unemployment. Though the government and policymakers are constantly engaging with to minimize the greatest threat of unemployment in the State, still the problem is posing as the greatest challenge. At present, Assam is witnessed as an emerging industrial structure. But due to the shortage of quality skilled manpower, the expected growth in services and industrial sectors is not become satisfactory.

In the last three to four years, the concept of Vocational Education has again evolved and it broadens its scope as skill based education. The basic emphasis of vocational education has been extended towards skill development in diverse vocational fields. Ultimately, the concept of National Knowledge Commission for using vocational education in building human resources is being planned to implement all over the country including in Assam.

Moreover, the importance of vocational education has considerably been improved in India due to the fast growing economy. The Government also gives much more importance on universalisation of secondary education, skill based education and social justice through inclusive education and training. During the year 2014, the Ministry of Human Resource Development issued notification for roll out of the Centrally Sponsored Scheme of Vocationalisation of Secondary and Higher Secondary Education all over the country. Since then, the programme has been subsumed under Rashtriya Shiksha Abhiyan and it has been implemented in a mission mode. Similarly, under the National Vocational Education Qualification Framework different skill based/ vocational courses are introduced in some selected schools.

Considering the urgency and importance of vocational education and being a part of mainstream India, the Government of Assam introduced vocational education in ten numbers of schools from July, 2012 as an experiment to evolve a suitable model of NVEQF implementation relevant to the State. In last two years, the number of such schools went up to seventy. At this moment, there is a need of introspection about the present vocational education programme considering the need and interest of the learners as well as the relevancy and utility in emerging societies/ markets. So, every stakeholder should come forward to make the programme error free and shape the programme as an instrument of skill building.

## **Chapter - 2**

### **REVIEW OF RELATED LITERATURE**

#### **2.1. INTRODUCTION**

In this chapter, the conceptual as well as research literature relevant to the theoretical and empirical framework from which the problem arises is to be reviewed. Based on the review, the researcher has to make it clear that the selected problem has roots in the existing literature, but further exploration is required. The description of review of relevant literature will itself prove that the researcher is familiar with what is already proved or known and what is unproved or not known. At the same time, it will eliminate the duplication of work already carried out and notions already proved.

#### **2.2. REVIEW OF RELATED LITERATURE**

A review of the literature yielded very few studies that focused on the measurement of vocational interest of students relative to gender, race, academic performance and socio-economic factors. There were a few related studies which only addressed vocational education and career choice. However, the investigator tried to review more studies already carried out with their findings relevant to the present study.

##### **2.3.1. STUDIES DONE IN INDIA**

Kumar, K. (1966) had undertaken a study of Reactions to Frustration, Needs, Adjustments, and Vocational Interests of Supernormals, Normals, and Subnormals with the following objectives :

- i) to make an investigation of the personality characteristics, viz., reactions to frustration, needs, adjustments and vocational interests of the supernormal, normal and subnormal school children, and
- ii) to make a comparative study of these personality characteristics among the supernormals, normals and subnormals.

In the study, Kumar found that -

- i) Supernormal boys possessed a normal capacity to adjust to a group of normal individuals, and to face frustrating situations. Normal boys showed a significantly high obstacle dominance. Subnormal boys possessed a low capacity to adjust to normal groups and to face frustrating situations.
- ii) Normal girls seemed to be more teachable for super-ego and impunitiveness, than the supernormal girls. For the category of obstacle-dominance, extra-punitiveness, intro-punitiveness and impunitiveness, the normal girls were more teachable than the subnormal girls.
- iii) Supernormal boys were more teachable than the normal boys in need of achievement. Normal boys were more teachable than the supernormal boys in the needs of abasement and autonomy. The supernormal boys were more teachable than the subnormal boys in the need of exhibition, whereas the subnormal boys were more teachable than the supernormal boys in the need of dependence. The subnormal boys were more teachable than the normal boys in the need of exhibition, whereas normal boys were more teachable for the needs of abasement and autonomy.
- iv) Supernormal girls were more teachable than the normal girls in the needs of dependence and autonomy. Supernormal girls were more teachable than the subnormal girls in needs of aggression, dependence, autonomy and exhibition. Subnormal girls were more teachable in the need of sex. The normal girls were more teachable than the subnormal girls in the need of achievement.

- v) Supernormal boys had shown the best performance in the field of home, health and emotional adjustment, and subnormal boys in the field of home, health and social adjustment. The supernormal and normal boys did not differ significantly in the field of social adjustment.
- vi) Supernormal girls had the best performance in home, health and total adjustment; subnormal girls in home and total adjustment; whereas normal and subnormal girls did not differ significantly in the fields of health, social, and emotional adjustments.
- vii) Normal group of boys were more teachable in the humanitarian area than the subnormal. It was more teachable in computational and humanitarian areas than the supernormal boys. In the areas of computational and persuasive interests, the group of subnormal boys was more teachable than the group of supernormal boys.
- viii) Normal girls were more teachable in the areas of physical science, executive, and humanitarian interests than the supernormal girls. The subnormal girls were more teachable in the areas of biological science and executive interests than the supernormal girls who were more teachable in a group in the linguistic area. The subnormal girls were more teachable in the biological science and linguistic areas of interests than the normal girls who were more teachable in a group in physical science.

Dasgupta, B. (1972) conducted a study on Pupils' Opinion on School Guidance Service in West Bengal with the aim to ascertain the opinion of a sample of pupils of West Bengal regarding different aspects of guidance services in their respective schools.

In the study, the researcher found that,

- i) The guidance services of the schools required extra social acceptance.
- ii) A large number of guardians/ parents were relatively guidance conscious.

- iii) Attitudes of heads of institutions, career - masters, teachers and pupils concerning school guidance services found to be quite satisfactory.
- iv) The students required to be provided wider programmes for co-curricular activities.
- v) Required more facilities in the schools for dissemination of occupational information.
- vi) The Career-masters required much more time for carrying guidance work.
- vii) The relationship among the career-masters and their pupils was found satisfactory.

John, Mary (1981) carried out his study with the topic viz. Future Time Perspective, Self-concept and Vocational Interest of Adolescents, with the aim -

- i) to investigate the extent to which institutionalized adolescents differed from non-institutionalized adolescents on future time perspective, self-control and vocational interests.

The main findings were:

- i) The institutionalized and lower income groups adolescents had shorter future time perspective and lower coherence than the middle and upper income group adolescents.
- ii) The middle class adolescents had a more extended future orientation than the other groups.
- iii) Adolescents-listed more present events than future or past events,
- iv) Lower income group boys listed more past events than present or future events.
- v) Institutionalized adolescents had low temporal relatedness than the non-institutionalized.

- vi) Institutionalized adolescents were most past-present oriented in comparison with the upper and middle class adolescents who were present-future oriented.
- vii) Four significant factors emerged from factor analysis with high loadings on spontaneous extension, FTPs core, past predominance, and coherence,
- viii) The ideal-actual discrepancy in self-concept was more for the institutionalized than for the non-institutionalized lower group.
- ix) The middle class adolescents were more stable in their self-concept than those from the upper class.
- x) The lower income group adolescents evidenced higher interest in scientific pursuits than the institutionalized.
- xi) The institutionalized evinced interest in fewer vocations than the lower income group.
- xii) Vocational interests of adolescents were directly related to their socioeconomic status.

The implications of the study were:

- i) The structuring of institutions and re-education of caretakers in the best interests of the inmates were required.
- ii) The institutional environment should be rectified through the development of a community-oriented approach.
- iii) Caretakers in institutions should attempt to enhance the growth of self-esteem.
- iv) More funds and talented personnel should be allocated to institutions.
- v) Institutionalization should be the last resort for a child in need; possibilities of family aid should first be explored.

Singh, M.H., Singh, S.P. and Others (1981) carried out the Vocational Survey with a main aim to identify the educational institutions where vocational courses

could be started and the names of the courses which could be run in the identified institutions, keeping in view,

- i) the students' strength and their vocational needs,
- ii) availability of physical and other facilities with minimum financial outlay,
- iii) absorption and utility of the trained students in the employment market,
- iv) recommended occupations offering reasonably good prospects of self-employment.

The major findings were:

- i) On the basis of reports of Ambala, Bhiwani, Gurgaon, Kurukshetra, Mahendragarh, Rohtak, Sirsa and Sonapat districts, seventy three educational institutions of high and higher secondary level were identified.
- ii) The courses recommended in the identified institutions were boiler attendant for two institutions, Steno-typist for eight, stenographer for six, food and fruit preservation for six, poultry farming for nine, building construction technology for three, repairing agricultural implements for fourteen, leather technology for three, nursing for eight, cutting and tailoring for fifteen, electronics for fourteen, brick-making for two, electrician for sixteen, fishing for twelve, librarian for six, interior decoration for five, secretarial practice for seven, radio assembling for three, accountancy for nine, diploma in textiles for six. cookery and nutrition for five, painting technology for four, weaving-master for four, embroidery for seven, draftsman for three, plumber for two, caning for two, repair to household gadgets for four, plastic technology for three, textile dyeing and printing for five, salesmanship for ten, and automobile technology for three institutions.



Tulsi, P.K. (1983) studied about the differential effect of Career Guidance Strategies on Vocational Maturity Patterns in relation to Sex, Intelligence and Need Achievement. The main objectives of his study were to -

- i) enquire the effect of career guidance strategies namely in, self-awareness, occupational information, and the combination of both on vocational maturity of ninth grade students,
- ii) make compare the effects of career guidance strategies on vocational maturity,
- iii) study the difference in vocational maturity patterns arisen due to difference in sex,
- iv) observe the differential vocational maturity patterns that arise due to differences in intelligence,
- v) analyse the differences in vocational maturity patterns that arise due to the differences in need achievement,
- vi) find out the differential vocational maturity patterns occurred in first order, second order & higher order interaction among sex, intelligence, need achievement and guidance strategies.

The study revealed that -

- i) There was not contribution found of the sex variable towards variance in scores on self-appraisal, occupational information, planning, goal selection, problem solving and total competence test.
- ii) As compared to the low intelligence group, the average intelligence group scored significantly higher in vocational maturity.
- iii) Except for the goal-selection component, significant effect of career guidance strategies found to be there on all the dimensions of vocational maturity. The students exposed to both self and occupational knowledge treatment emerged significantly better than the no treatment students on the attitude dimension. The self-awareness and occupational information presented together found to be more effective than the occupational

information career guidance alone in raising the vocational maturity on planning, problem solving and total competence in skills dimension.

- iv) Out of the 42 first order interactions among various variables, only one, viz., sex intelligence interaction, was significant. Girls and boys of low and average intelligence revealed higher vocational maturity on the total competence test as compared to high intelligence girls and boys respectively.
- v) There was no significance in 28 second order interactions among the variables.
- vi) For planning purpose, the single higher order interaction of sex, intelligence, achievement and guidance strategies was also found to be significant. The Girls of high intelligence having with higher level of achievement treated through a combination of the self-awareness and occupational information, appeared as the best group in which vocational maturity that could be increased to the maximum.

Kakkar, Ved (1983) carried out a study of Job Satisfaction in relation to Attitudes, Job Values and Vocational Interests of Women, with the aim,

- i) to determine the inter-relationships between work-attitudes, vocational interests, work-values, age, socio-economic status and marital status (treated as independent variables) and job satisfaction (treated as a dependent variable).
- ii) to find out the interrelationship and factor structure of job satisfaction and occupational aspirations of women employees and compare them with vocational girl students.

Major conclusions of the study were :

- i) Women employees of the four vocations differed significantly in their job satisfaction.

- ii) Job satisfaction and the occupational level of the employees were positively related.
- iii) Women employees of the four vocations were found to have different patterns of vocational interest.
- iv) Vocational interest patterns of women employees of four vocations did not differ significantly from those of the vocational girl students.
- v) Women employees of different vocations differed in their attitudes towards work.
- vi) Employees of different occupations were influenced differently by the different variables of vocational attitudes in their job satisfaction levels.
- vii) Job satisfaction of the employees was affected both by the type of job held by the employees as well as by the component of work values.
- viii) Job satisfaction of the employees was significantly influenced by the interactions of different independent variables of the study with other variables of the study, viz., positive relationships were found between job satisfaction and age, educational level, income, vocational attitude and work-values.
- ix) There was a positive correlation between the vocational interests and the occupational aspirations of girl students.
- x) Age and SES had significant effects on the occupational aspirations of the girls in vocational courses.
- xi) School achievement was negatively correlated with occupational aspirations of girls in vocational courses.

Mowji, M. N. (1983) carried out the on Educational and Vocational Problems of Higher Secondary Students of Greater Bombay during 1975 – 1977.

The main objectives of the study were to -

- i) search out the nature, degree and extent of the problems namely, both educational and vocational of the junior college students,

- ii) discover the specific problems of students in three academic streams namely, arts, science and commerce,
- iii) assist the students with their educational and vocational problems,
- iv) find out the pros and cons of the implementation of new education pattern in Greater Bombay,
- v) enquire the difficulties faced by Professors while teaching,
- vi) enquire the administrative problems of the Principals while introducing +2 pattern in their colleges.

The main conclusions of the study were :

- i) Junior college students faced educational and vocational problems. They had to face difficulties due to absence of guidance at school and college level.
- ii) The new pattern had failed due to lack of coordination between schools and colleges and due to faulty planning.
- iii) In the absence of proper implementation there was confusion everywhere in 1972 in Greater Bombay.
- iv) The main purpose of the 10 + 2 + 3 was vocationalization; it had completely failed as everybody joined the academic stream in the absence of any vocational stream.
- v) The schools and colleges did not have properly trained teachers. They were neither trained before the implementation of the new pattern nor afterwards.
- vi) The books and syllabuses were prepared/ designed without bearing in mind the interest and level of the students.
- vii) The Science students did not get time for any co-curricular activities but the arts students had ample time for this purpose.
- viii) The admissions were allowed more based on the influence of the parents rather than on the merits of the students.

- ix) More problems of indiscipline created in the large classes in science and commerce streams under the fresh postgraduate teacher than under the trained or experienced teachers and professors.
- x) The students joined any stream where they got admission.
- xi) In junior colleges, there was dissatisfaction among the lecturers due to low salary even there was more workload.
- xii) In the junior colleges, there were no proper library facilities available for the students.

Premlata (1984) carried out a study on the Parents, Teachers and Counsellors, Approaches towards Personal, Vocational and Educational Problems of the Adolescents. The objectives of the study were to -

- i) identify the different psychological problems of adolescents,
- ii) categorize all the problems under appropriate heads like special, emotional, sexual, personal, vocational and educational problems,
- iii) evaluate the effectiveness of different counselling approaches while solving various groups of problems,
- iv) suggest measures for tackling the problems of the adolescents effectively.

The major findings of the study were :

- i) Being a group, the adolescents had a large number of problems. All the problems were related to physical growth and development, physiological growth, intellectual and emotional development, social development and moral development. The problems had various symptoms namely, emotional immaturity, intellectual inadequacy, social immaturity and other telltale symptoms.
- ii) The parents were not equipped about the role of counselling. They were also not familiar with the problems of their children. They were not capable to distinguish the problems occurred from the symptoms.

- iii) To identify the problems of the students, teachers were also not in a sound position.
- iv) The problems of adolescents included personal, educational and vocational fields. Like the parents, the teachers were not being in a state to resolve the problems of the adolescents. It was only the counsellor who had been able to resolve most of the problems faced by adolescents. The resolution of problems those included all the fields- personal, educational and vocational.
- v) The parents blamed the teachers for not informing them about the problems faced by their children. Similarly, teachers also blamed parents for not calling on teachers from time to time. There was little social relationship between the parents and the teachers.
- vi) To some extent, there was a visible gap between parents and children.

Soundaravalli, S. (1984) pursued a Critical Study of the Functioning of the Vocational Education Stream in Higher Secondary Schools in Tamil Nadu. Main objectives of the study were :

- i) to identify the administrative policies regarding the selection of schools and vocational subjects,
- ii) to assess the availability of instructional materials provided in relation to curriculum,
- iii) to find out the qualifications, training and experience of teachers who were handling vocational subjects in the various higher secondary schools,
- iv) to identify some of major characteristics of the students who opted for vocational subjects such as vocational aspiration, academic motivation, self-identity, self- esteem, self-concept, and attitude towards vocational education, and

- v) to assess the degree of acceptance of the new system as revealed by the attitudes of teachers and parents towards vocational education.

Findings of the study :

- i) Nearly 90 per cent of the schools were upgraded as higher secondary schools with academic and vocational streams in the year 1978. Some 21 different vocational subjects were offered in those schools.
- ii) About 90 per cent of the schools functioned well and were able to produce 90 per cent results in the public examination.
- iii) The students were admitted in the vocational education stream without any aptitude test.
- iv) As a result of the introduction of a vocational stream in higher secondary schools, many teachers were appointed to teach the vocational subjects to the students, but only 20 per cent of the teachers were full-time teachers, and 80 per cent of them were part-time teachers with a fixed remuneration of Rs 300/- per month.
- v) For certain vocational subjects, such as accountancy and auditing, there was no external examination in practicals as was done for other vocational subjects.
- vi) Adequate cooperation from industrialists and factory owners was not available.
- vii) The instructional materials pertaining to curriculum was not adequate in 50 per cent of the schools. Only 30 per cent of the schools were fully equipped.
- viii) Though the aim of introducing vocational education was to reduce unemployment and pressure on colleges, yet nearly 37 per cent of the vocational group students went in for higher studies only.
- ix) The vocational group students, the teachers teaching vocational subjects, and the parents of vocational group students showed a favourable attitude towards vocational education.

Fernandez, L. (1984) carried out a study of the Effect of Guidance and Counselling on Academic Achievement of Under achieving Pre-adolescent and Adolescent Girls.

The main objectives of the study were to -

- i) enquire the effect of counselling on achievement of pre-adolescent and adolescent under-achievers,
- ii) enquire the effect of counselling on pre-adolescent and adolescent under-achievers compared to that of non-counselled normal achievers,
- iii) enquire the effect of counselling on the achievement of pre-adolescent and adolescent under-achievers belonging to the families holding the white-collar and blue-collar jobs.

The major findings :

- i) Academic achievement of the counselled pre-adolescent under-achievers was found significantly greater than those of non-counselled under-achievers.
- ii) Academic achievement of the counselled pre-adolescent underachievers was significantly greater than that of the non-counselled preadolescent normal achievers.
- iii) Academic achievement of the counselled adolescent under-achievers was found significantly greater than that of the non-counselled adolescent under-achievers.
- iv) Academic achievement of counselled adolescent under-achiever was found significantly greater than that of the non-counselled adolescent normal achievers.
- v) Academic achievement of the counselled adolescent under-achievers belonging to the families holding the white-collar jobs and the blue-collar jobs did not differ significantly.



- vi) Academic achievements of the counselled pre-adolescent under-achievers belonging to the families holding the white collar jobs and the blue collar jobs differed significantly.

Deshamukhya, M. L. (1984) carried out a study on Vocationalization of Secondary Curriculum in Assam, with the following major objectives;

- i) to devise means to give the student such education and training as would make it possible for him to play the role of a useful citizen,
- ii) to work out methods to provide comprehensive scope in vocational and technological studies which would ultimately fit the candidate to various professions, and
- iii) to study the problem of educated unemployment in Assam in particular and the needs of the society. While developing curriculum in secondary level (with reference to Assam in particular and the N.E. region in general), the study would go through the existing curriculum at the primary and middle stages and suggest necessary changes required to match the newly organized secondary pattern.

The major conclusions of the study were:

- i) The declared national pattern (10 + 2 + 3) should be accepted with minor modifications, taking into consideration the peculiar problems of the region or locality.
- ii) The design or types of vocational streams in particular cannot be the same everywhere. On the other hand, in view of the objectives of the secondary curriculum, vocational streams should be developed on the basis of the raw materials available in the locality and their future potentialities leading to some vocations.
- iii) The secondary curriculum should prepare the pupils to become individually competent. After middle-school level, 80 per cent of the stress

should be on vocational/technical education depending on the aptitude of the pupils of the state/country. However, this may create accommodation and financial problems for the school authority/ government. This should be reduced step by step by providing theoretical coaching in the school compound and practical work in local farms, factories, industries, workshops, etc., depending on local resources and aptitudes of the pupils at the initial stage. Subsequently, schools may be developed by setting up laboratories, workshops, etc.

- iv) Phase-wise teachers if not found locally, may be recruited from outside the state/region and provided with necessary orientation to suit the new curriculum.

Jain, K. K. (1984) conducted a study of the Development of Interests among the School Students of Delhi in relation to Certain Variables.

Main objectives of the study were to -

- i) identify areas of interest of the school boys in Delhi,
- ii) study the impact of age, urban-rural background, socio-economic status of the individual, subject streams, extraversion and introversion on the development of interests,
- iii) study the relationship of located interest areas in terms of the independent variables.

The main findings of the study were:

- i) Urban boys had higher interest in academics than rural boys. The rural boys were not much concerned with the choice of a career.
- ii) The opportunities to appreciate art, poetry, music, dance, painting, drama, etc. were far more widely available to urban boys than to rural boys.
- iii) There were differences in the development of interest in health, sports and games among urban and rural boys.

- iv) Rural subjects had lower literary interests than urban subjects.
- v) Urban subjects had higher mechanical interests than the rural subjects. Urban boys had higher interests in outdoor activities and adventures than rural boys.
- vi) There was no difference in political interests of urban and rural subjects.
- vii) The urban subjects had higher scientific interests than rural boys.
- viii) Urban and rural subjects had similar interests in sex and romance.
- ix) There was no significant difference between interests of urban and rural boys.
- x) There was a significant difference among the three levels of SES as regards academic interests the mean scores for the SES level of high, middle and low groups were 49.75, 48.96 and 41.83 respectively.
- xi) The three socioeconomic status groups (high, middle and low), differed significantly in economic interests.
- xii) The low and middle SES groups had similar mechanical interests and both of them had higher interests in this area than the high SES group.
- xiii) The three SES groups differed from one another in their interests in outdoor activities and adventure.
- xiv) The middle group had higher political interests than the low and high socioeconomic groups.
- xv) The middle group had higher degree of social interests than the other two groups.
- xvi) The commerce group was less interested in academics as compared to the science and humanities groups.
- xvii) The aesthetic interests of commerce and science groups were the same, while those of the humanities group were much higher.
- xviii) The commerce group had higher economic interests than the humanities and science groups.
- xix) Science students showed the highest degree of interests in the area of health, sports and games followed by the commerce group and the humanities group.

- xx) The humanities group had much higher interests in literary activities than the science and commerce groups.
- xxi) The science group had much higher interests in mechanical subjects than the commerce and humanities groups.
- xxii) The commerce group had the highest score in political interests followed by the humanities and science groups in order.
- xxiii) The humanities group showed the highest interests in religious activities, whereas the commerce and science groups were at par with each other.
- xxiv) The science group showed the highest degree of interests in sex aid romance followed by the commerce and humanities groups.
- xxv) The humanities group had significantly higher social interests than the commerce and science groups.
- xxvi) Introverts had higher interests in academic areas than extraverts.
- xxvii) Introverts had higher interests in aesthetic areas than extraverts.
- xxviii) Extraverts were more interested in health, sports and games than introverts.
- xxix) The introverts had higher interests in the literary area than the extroverts.
- xxx) There was no difference in the interests in the mechanical area between the extraverts and introverts.
- xxxi) The extraverts had higher interests than introverts in outdoor activities and adventure.
- xxxii) The extraverts had much higher political interests than introverts.
- xxxiii) The introverts had somewhat higher interests in the religious area than extraverts.

Gokhale, H.V. (1984) studied the Vocationalization at +2 Stage (Commerce Stream) specially in Maharashtra, with the following objectives :

- i) appraising the status of vocational education as perceived by the students, and,

- ii) identifying problems in instructional aspects of vocationalization of education.

Findings :

- i) The presently run vocational courses were useful as compared to general courses, but failed to prepare a student for any job or self-employment venture.
- ii) The government was not providing any job or financial assistance to the students passing out with vocational courses.
- iii) The practical training imparted by visits to different institutions and by arranging guest lectures was not sufficient.
- iv) Teachers needed to be trained on all practical aspects in their respective subjects.
- v) The service conditions of teachers teaching vocational subjects were such that they kept good teachers away from these subjects.
- vi) The grants provided by government were insufficient for imparting practical training.

Bhale, N. (1985) conducted the Study of Regional Imbalance in Vocational Education and Man-Power Planning in Marathwada,

Main Objectives were :

- i) to study the facilities available in institutes imparting agricultural education in Marathwada,
- ii) to study whether the content of agricultural education was in conformity with the needs of the Marathwada region,

- iii) to study the academic, administrative and financial difficulties of institutions imparting agricultural education,
- iv) to study the regional imbalance in agricultural education in Maharashtra, and
- v) to make recommendations to improve agricultural education in Marathwada.

Findings :

- i) Marathwada is predominantly agricultural as compared to other regions of the state. The future prosperity of this region depended on agricultural development of the region.
- ii) The cropped area of the region is 76.9 per cent of the total as compared to 60.65 per cent for all Maharashtra.
- iii) Cereals, pulses, cotton, oil seeds, rice, wheat, jowar, bajra, gram and tur are the main crops of the region. Due to availability of irrigation facilities, sugarcane is also grown in the area.
- iv) The region had insufficient higher educational institutions for agricultural education as compared to other regions.
- v) A majority of students believed that the existing system of agricultural education needs to be changed which should be based on the needs of farmers in Marathwada depending its specific soil and climatic conditions.
- vi) Teachers felt that the prevailing course content fulfilled the purpose for which it was designed.
- vii) Cultivators felt that agricultural graduates were not adequately equipped with a capacity to solve the felt problem. Students lacked practical knowledge.

viii) Agricultural education was not based on the needs of the cultivators.

CASE, MSU (1985) carried out a Study of Vocationalisation of Education at the Higher Secondary Stage, with the following objectives;

Objectives :

- i) exploring the facts about organization and functioning of vocationalization of education at the higher secondary stage in Maharashtra, Karnataka and Gujarat, with special reference to institutional facilities, background of students' aspirations, teachers' background, principals' background, admission procedures, nature of courses, academic and job perspectives, syllabi and textbooks, teachers' training background, methods of teaching, practical experiences, evaluation system, and finance, and
- ii) to study the reaction of students, teachers and principals towards the functioning of vocationalization of education.

Findings :

- i) Karnataka had offered 31 trades, Maharashtra 24 trades, and Gujarat 21 trades. The common trades were agriculture and farm management, automobile servicing, and electricals.
- ii) The institutions were mostly situated in urban localities.
- iii) Being a part of formal institutions like higher secondary schools and colleges, the vocationalization stream did not get adequate facilities.
- iv) Most of the students were male. In Karnataka and Gujarat, most of them belonged to backward communities. The students of Maharashtra and Gujarat were from high and middle class families, whereas in Karnataka most of them belonged to poor families.

- v) Most of the principals had no technical education, hence they could not pay proper attention to the functioning of the system.
- vi) Most of the teachers had technical education qualifications. However, because of lack of job security and low salary, highly qualified and experienced teachers could not be attracted.
- vii) Admission was on a merit basis. No rush for admission was noted.
- viii) Except in a few cases, the courses did not match the local needs of employment as perceived by the principals and teachers.
- ix) In spite of the declaration of flexible entry points, Karnataka did not give recognition to the products of vocational streams for enrolment in professional courses.
- x) The syllabi were very lengthy and could not be completed in time.
- xi) Practical experience could not be provided to the students appropriately because of lack of funds, lack of transportation and lack of cooperation from teachers.

Dhamankar, V. (1985) conducted a study on Vocational and Craft Training in Marathwada with the aims :

- i) to survey existing facilities and related infrastructure available in ITIs,
- ii) to identify training needs and trades/areas in which training was needed,
- iii) to suggest the nature of new courses to be started,
- iv) to identify growth centres where such training could be developed, and
- v) to identify institutions where training facilities needed to be reinforced.

Findings :



- i) During the year 1982-83, 2524 seats were available in ITIs for which 52127 applications were received. The number of students admitted during that year was 2552 and the number of stipend holders was 1768.
- ii) Twenty-six out of 64 (40 per cent) of the trainees responded that qualifying for employment was their reason for seeking admission to ITIs, 22 sought admission for self-employment, three for the sake of gaining knowledge, 12 were not sure of their aim, while one wanted to improve his own agriculture.
- iii) The main employment markets according to the trainees were factories, industries, motor garages, workshops, ITIs, air-ports, etc.
- iv) Thirty-seven out of 64 responded that the training they received was enough for self-employment.
- v) The trainees reported that the equipment in the ITIs was old. ITIs should accept job/ work from outside in some trades (turning, fitting, welding). Training should be given in all allied fields. Training should be in keeping with the requirements of the industry.
- vi) Ten out of 27 ex-students reported that they found the courses very useful in securing jobs, five reported that the courses were useful for self-employment though other problems like finance were there; seven found the training very useful for all time to come.
- vii) Sixteen out of 27 reported that the training was adequate; four, however, categorically said that it was inadequate; two felt that the training was inadequate as far as some organizations like State Transport were concerned.
- viii) Persons trained in ITIs faced serious difficulties in handling modern machinery and equipment in industries as they were trained on old

equipment. Some felt that, during ITI training, trainees be attached to factories at least for one day a week.

- ix) Though technical skills given in the ITIs were enough for self-employment, such an endeavour required additional human skills which were not provided in ITIs.
- x) The shortcomings mentioned by the trainees were dearth of experienced instructors, inadequate practical work, outmoded syllabus and shortage of modern equipment.
- xi) Respondents felt that, in view of the industrial growth in the region, new trades, viz., sugar technology, electronics, dairying, electric welding, motor and transformer winding, fabrication, casting and moulding, and spinning and weaving should be introduced.
- xii) Thirty three teachers out of 35 felt that ITI courses had to be modernized urgently. Similarly, training in allied fields should be included in each course and that the component of practical work be improved, etc.

Deshpande, K. (1985) conducted a case study on Job-oriented and Reconstructed Courses at the Degree Level in Marathwada University. The major objectives of the study were;

- i) to study availability of teaching and laboratory facilities,
- ii) to find out the nature of field experience,
- iii) to inquire into the relevance of the courses to the needs of the region and the locality, and
- iv) to survey the reactions of all (students, teachers, parents, etc.) towards these courses and to suggest measure for more meaningful and effective implementation of these courses.

Some of the important findings were:

- i) There was a feeling among all concerned that the courses had been introduced without adequate preparation.
- ii) No orientation was given to teachers teaching these courses, with the result that the effectiveness of the teaching was lost when courses entered the third (advance level) year.
- iii) Training in applied courses was different and, in many cases, superior to teaching of traditional subjects.
- iv) Lack of equipment and inadequate expertise did not allow teachers to do full justice to applied courses.
- v) Students who passed the B.Sc. with applied subjects could neither get jobs nor become self-employed. They had no choice but to join post graduate courses in traditional subjects.
- vi) The motivation of students selecting applied courses was to secure jobs.
- vii) Students expected better in-plant training in certain subjects.
- viii) Microbiology students did not find the course interesting.
- ix) In most of the subjects the content of the course was considered sufficient for employment.
- x) The combination of subjects was not meaningful.
- xi) Almost everywhere, students complained about lack of adequate facilities like laboratory and field work.
- xii) Students opined that applied courses should not be discontinued, but should be re-modelled and made relevant to the situation around, and better teaching facilities should be provided.

Gupta, S.R. (1985) studied the Objectives, Programmes, Infrastructural Facilities and Perceived Effectiveness of Guidance Services in Delhi Schools. The major aims were, to -

- i) study and analyse the objectives of guidance services of the schools,
- ii) study both the physical as well as financial infrastructural facilities,
- iii) study the various activities carried out under guidance services in schools,
- iv) study the efficacy of the guidance services perceived by the students, parents, teachers and principals,
- v) study the programme variations considering all the above mentioned four objectives and comparing urban and rural schools as well as girls and boys schools,
- vi) study the views of the counsellors regarding difficulties faced by them while discharging their duties.

The major findings :

- i) Most of the counsellors followed the objective educational and vocational decision-making.
- ii) Majority of the counsellors executed intelligence tests.
- iii) Most of the counsellors delivered the educational and occupational information through classroom talks only.
- iv) Most of the counsellors adjudicated about effectiveness of counselling services using criterion that the students made accurate subject choices.
- v) Most of counsellors tried their best to resolve some of students' problems such as, under-achievement, adjustment, emotional mal-adjustment, financial problems etc.
- vi) Adequate infrastructural facilities, such as, separate rooms for counselling, test materials and displaying materials, etc. were not available for a large number of counsellors in the schools.

- vii) There was no follow-up guidance programme executed because most of counsellors did not receive full cooperation from the students and guidance functionaries.
- viii) All the counsellors felt that the overall guidance programme was not only effective but it also very helpful for the development of better self-understanding among the students.
- ix) There was lack of co-operation among counsellors, principals, teachers and parents which was the major problem for the counsellors.
- x) For better cooperation in guidance programmes, counsellors suggested orientation programmes for the teachers and principals.
- xi) The teachers, those were working with boys and girls in urban schools and with girls in rural schools, perceived that the guidance programme would be more effective if it would be conducted by the women counsellors rather than by the male counsellors.
- xii) In the perception of students, parents and principals associated with urban and rural schools, no significant differences were found in the effectiveness of guidance programme.
- xiii) The guidance programme was perceived as more effective by students and parents associated with urban schools than with rural schools.
- xiv) The principals and teachers did not recognize any difference about the effectiveness of guidance programmes in girls' as well as boys' schools.

Yasin, Y. (1985) conducted a Study of Vocational Interests of girls as related to their level of Intelligence, Parental Education and Socio-economic Status. Main objectives of the study were, to -

- i) search out the effect or influence of parental education on the vocational interests of girls;
- ii) relate the level of intelligence with vocational interests of girls;

- iii) measure the extent of influence of socio-economic status on the vocational interests of girls.

Findings :

- i) That the level of parental education has a significant role to play in determining the vocational interests of girls. Result showed that highly educated parent's children come for more prestigious occupations and less educated parent's children generally aspire for low-ranking occupations.
- ii) That the level of intelligence is significantly related with the vocational interests of girls.
- iii) That socio-economic status of the parents also has an important place in influencing the vocational interests of girls.

Suman, S. (1986) pursued a socio-psychological study of Goals and Aspirations of Female Students with the aim ;

The main aim of the study were :

- i) to find out the educational and vocational goals and aspirations of arts and science students and the various factors reported by them to be responsible for their goals and
- ii) to find out the various personal and social characteristics associated with different levels of educational and vocational goals.

Some of the major conclusions were :

- i) For arts students, the most important educational goal was a bachelors' degree in education followed by a simple bachelors' degree (pass course) and a masters' degree; and for science students the goal was a bachelors'

degree (Honours course) followed by a bachelors' degree in education, medicine, a simple bachelors' degree and a masters' degree.

- ii) Advice of friends, and ability was the most important determinant of educational goal for arts and science students, respectively.
- iii) Opportunity of recreation and getting employment were important objectives behind educational goals for arts and science students respectively.
- iv) For arts students, a masters' degree was an important educational aspiration; teaching was an important vocational goal; good salary was a very important determinant of vocational goal; prestige was a valued thing in life; and college teaching was an important vocational aspiration. For science students the same findings were a bachelors' degree in medicine, teaching, good salary, prestige and college teaching, respectively.
- v) Economic status, self-concept of academic ability, ability or intelligence, academic motivation, need achievement and extraversion had significantly positive association with educational and vocational goals.
- vi) Unmarried girls had significantly higher educational and vocational goals than married girls.
- vii) Father's education had a significant positive association with educational goals.
- viii) Neuroticism was not significantly associated and insecurity had significant negative association with educational and vocational goals.
- ix) There was a good deal of similarity between responses of arts and science students. Arts and science students combined together had favourable attitudes towards marriage of girls (82 per cent) and were in favour of employment of girls (38.7 per cent).

Tripathi, R. H. (1986) carried out a study for determining the Various Guidance Needs of Pupils of the Secondary and Higher Secondary Schools. The main objectives of the study were, to -

- i) inquire or determine the various guidance needs of students of secondary and higher secondary schools,
- ii) find out the relationship between the guidance needs and some variables namely, sex, grade, birth order, educational level of the parents, size of the family and type of the school.

Major findings of the study were :

- i) There was a significant relationship exists between the grades of pupils and social, personality, educational, financial, vocational and religious needs.
- ii) The sex of the pupils was highly related with their health, personality, social, vocational and religious.
- iii) Father's education level was highly related with the familial, personality, educational and financial guidance requirement.
- iv) Size of the family was found to be highly related with the health, familial and social needs.
- v) The students' birth order was observed to have no relationship with any kind of needs.
- vi) The students of single-sex schools required ample attention towards health, familial and personality guidance needs whereas the students of mixed schools required much attention for sexual and educational guidance.
- vii) There were some problems such as, lack of knowledge of teachers, misbehavior with the pupils, difficulties found in the subjects of mathematics and Sanskrit, defective teaching methods, those required urgent attention.
- viii) The pupils came from low socio-educational status required polite treatment from the teachers.



Mohanty, G. (1986) carried out a Survey of Vocational Education in the State of Orissa since Independence (1974-1981). The objectivess of the survey were;

- i) to make a status survey of vocational education in the state from 1947 to 1981,
- ii) to list the types of training-cum-activities being conducted under vocational and technical education schemes and programmes,
- iii) to know the views of the heads of the vocational institutions regarding the efficacy of such programmes, including the follow-up activities, and
- iv) to suggest ways and means for further improvement.

Findings :

- i) Very few schools imparted vocational and technical education in 1947. By 1971 the total number rose to 106 and 124 in 1981.
- ii) More men were attracted towards technical and vocational courses than women.
- iii) Typewriting, music, dance and drama, and tailoring had attracted women.
- iv) There was shortage of skilled personnel and an unemployment problem from 1961 to 1981. No follow-up programme was undertaken. There was no feedback between training institutions and fields of work. There was no placement service wing. Courses in various institutions were not need-based. Since the employment prospect was bleak, many drooped out. Students coming out successful were technically unsuitable on jobs for wants of adequate practical experience.

Sharma, S. (1986) studied the Influence of Family and Peer Group on the Vocational Interests of the Gifted Adolescents Studying in Different Types of Schools. The main objectives of the study were, to -

- i) find out the gifted with the help of verbal as well as non-verbal tests of intelligence tests and creative thinking,
- ii) find out vocational interests of the intelligent, creative and gifted adolescents distinctly,
- iii) study the vocational interests of the intelligent, creative and gifted adolescents across the sex,
- iv) find out the influence of family and peer group on vocational interests,
- v) study the influence of socioeconomic status on vocational interests of the gifted adolescents,
- vi) study the influence of parental aspiration on vocational interests of the gifted adolescents.

Major findings of the study were :

- i) The intelligent adolescents showed high interest in scientific areas. The creative and gifted adolescents also showed similar interests.
- ii) The intelligent, creative and gifted boys showed high interest in artistic and executive areas, whereas their girl counterparts showed high interest in scientific areas.
- iii) Similarly, the intelligent, creative and gifted adolescents expressed that their own self was more influential while selection of courses of study, fulfillment of aspiration and motivation, interest and the sense of labour.
- iv) A major group of adolescents in intelligent and creative group who exhibited high, above average and average interest in different vocational areas came from middle strata of the society. But those gifted adolescents who revealed high and average interest in the different vocational areas came from the upper and upper-middle socio-economic strata of the society.

- v) The major group of parents of the intelligent, creative and gifted adolescents had very high aspiration towards education, job, income, social status, marriage and other social roles.
- vi) Due to very high parental aspirations, the parents of intelligent, creative and gifted adolescents group exerted their influence towards the future vocational interests of their wards.

Dabir, D. (1986) carried out a research Study of Vocational Aspirations as a Function of Aptitudes, and Motivational Patterns among the Boys and Girls Studying in 9th, 10th and 11th Grades in Nagpur District. In the study, an effort was made to study how aptitudes, motivation, socio-economic status and aspirations were related to one another.

The hypotheses examined were :

- i) Vocational aspirations were essentially consistent with aptitudes.
- ii) High scores on different types of aptitude will significantly influence the aspiration regarding type of vocation.
- iii) There is an interaction between achievement motives and vocational aspirations.
- iv) Hierarchy of motives leads to hierarchy of vocational aspirations.
- v) Some motives may form a cluster/pattern and function collectively to determine vocational aspirations.

The major findings were:

- i) The first hypothesis was only partially supported by the study.
- ii) It was found that the relationship between socioeconomic status and vocational aspiration was predominant. It seemed that vocational aspirations were not merely a function of aptitudes but a function of the socioeconomic status of the subjects.

- iii) The positive and significant values of r's between vocational aspirations and achievement motivation suggested that achievement motivation was likely to generate the vocational aspirations of the subjects.
- iv) The hierarchy of needs was associated with hierarchy of vocational aspirations of the school-going youth.
- v) Some clusters of needs were found to be associated with vocational aspirations.
- vi) The achievement, deference, and nurturance constituted the most closely knit cluster of needs out of the 15 needs studied to determine the vocational aspirations of boys.
- vii) The achievement, autonomy and charge formed a cluster associated with vocational aspirations of girls.
- viii) The socioeconomic status of boys as well as girls contributed most considerably to vocational aspirations.
- ix) None of the eight aptitudes studied had considerably high positive association with vocational aspirations.
- x) Vocational aspirations were generated more by the socioeconomic status of subjects than any other variable studied in the project.

The educational implications are:

- i) The school going youth need to be made realistic as far as vocational aspirations are concerned. If he knows the quality and magnitude of his aptitudes at the school stage, his aspirations will be consistent with his capabilities.
- ii) Once parents know the types of aptitudes their children have, they are likely to generate in them aspirations consistent with the aptitudes of the youth.
- iii) Students belonging to the low socioeconomic status group need to be exposed to a greater range and variety of job possibilities.

- iv) The level of achievement motivation of school-going youth needs to be controlled so far as its quality, magnitude and direction are concerned.
- v) There should be programmes like work experience and visits to places of work, so that the youth has a taste of world of work in its mundaneness.
- vi) Teachers and parents should devote serious thought to the causes of the low level of aptitudes of school-going youth.
- vii) If the needs, associated with level of aspirations are accepted as the causative factor, then the educational planners, policy makers, teachers and parents should evolve ways and means to induce needs as are associated with realistic vocational aspirations of school-going youth.

Gaur, J.S. and others (1987) conducted a study on the Psychological Basis of Educational and Vocational Development of Scheduled Caste Students.

The main objective of the study was :

- i) to enquire the psychological characteristics namely, self-concept, occupational aspirations, intelligence and career maturity, values, vis-a-vis the educational and vocational maturity of the scheduled caste high school students.

The major findings of the study were:

- i) The non-scheduled caste boys as compared to scheduled caste boys and rural non-scheduled caste boys as compared to rural scheduled caste boys were found to be significantly higher in their overall self-concept.
- ii) The non-scheduled caste boys as compared to scheduled caste boys were also found to be higher on overall intelligence.
- iii) The rural non-scheduled caste group also showed significantly higher verbal intelligence than the rural scheduled caste group.
- iv) The scheduled caste group scored higher than their non-scheduled caste counterparts on aesthetic value.

- v) Both the non-scheduled caste and scheduled caste urban groups performed better with regard to the overall career maturity test than their rural counterparts.
- vi) There was significant differences were found in the scheduled caste group in economic value, religious value, non-verbal intelligence and the total intelligence between rural and urban groups; the urban group being higher on economic value and the rural group being higher on rest of the above variables.
- vii) The scheduled caste boys showed significant improvement over a period of one year with regard to physical, temperamental, intelligence, educational and moral self-concept as well as career maturity.
- viii) Predicting variables of career maturity in case of non-scheduled caste boys were social value, intellectual self-concept and the total academic achievement. In case of scheduled caste boys, social self-concept and theoretical value were found to be significant predictors.
- ix) Being a dependent variable, the Knowledge of Occupation showed significant difference between the urban and rural scheduled caste boys on all the variables.
- x) Being a dependent variable, significant differences were found in case of Knowledge of Self between the rural and urban boys on economic and social values, intellectual self-concept and verbal intelligence, the temperamental and moral self-concept.

Mangat, D. (1988) studied the Relationship of Vocational Maturity with Intelligence, Socio-economic Status and Academic Achievement.

Major objectives of the study were;

- i) to ascertain the factors contributing to vocational maturity,
- ii) to study the relationship between vocational maturity and measures of intelligence, socioeconomic status and academic achievements,

- iii) to identify the best set of independent variables predicting vocational maturity.

Findings :

- i) Intelligence was significantly related to various areas of vocational maturity, viz., self-appraisal, occupational information, goal selection, planning, total competence and total maturity.
- ii) Socio-economic status exhibited a significant relationship with all the areas of vocational maturity barring self- appraisal and problem solving.
- iii) Academic achievement was significantly related to occupational information, planning, total competence and total maturity.
- iv) The measure of total competence depended significantly on intelligence, SES and academic achievement.
- v) Attitude was not dependent upon independent measures of intelligence, SES and academic achievement.
- vi) Total vocational maturity depended on intelligence, SES and academic achievement and these three independent variables contributed to total vocational maturity.
- vii) SES was found to be the best predictor of total vocational maturity.

Khobragade, N. (1990) carried out a study on Vocational Aspirations and Interests of the SC/ST Students of Class-X of Bulsar District of Gujarat State and Providing to them Vocational Guidance with reference to different Variables.

Main Objectives of the study were, to -

- i) find out the vocational aspirations and interests of the SC/ST students of Class-X of Bulsar District,

- ii) find out the vocational aspirations and interests of the SC/ST students of educated and un-educated parents,
- iii) find out the vocational aspirations and interests of SC/ST students of economically higher and lower strata of the society,
- iv) find out the vocational selection of higher and low intelligent students of the SC/ST categories,
- v) find out the vocational aspirations and interests of SC/ST students and to see whether the vocational aspirations and interests of SC/ST students are influenced by the profession of their Guardian or not,
- vi) study the effect of family circumstances of SC/ST students while making selection of vocations,
- vii) study the factors those affects the vocational choice of SC/ST students from their surroundings.

#### Main Findings :

- i) Most of the SC/ST girl students did not take part in curricular and extra-curricular activities.
- ii) The girls seemed to be concerned more with their immediate social environment and adaptability is a major asset in case of girls.
- iii) Very less number of students was aware of the opportunities and avenues available in the vicinity in Bulsar District.
- iv) The analysis of the results confirms that higher achiever showed vertical mobility by preferring challenging subjects for future prospects.
- v) There are marked differences between SC/ST boys and girls in the perception of their vocational selections and these differences have been in favour of boys rather than girls.



- vi) There has been stimulating environment in case of higher achievers and middle achievers which induced them more positivism towards professional courses and academic stream to fulfill higher aspirations.
- vii) There has been a significant effect on family background in case of boys and girls in making the atmosphere/ environment a vocational.

Sungoh, S. M. (1991) carried out a study of vocational education and attitude towards vocationalization of education in east Khasi Hills.

The objectives of the study were :

- i) To study the status of vocational education including problems of vocationalisation of education in the East Khasi Hill district.
- ii) To survey the attitude of pre-university students in the East Khasi Hills district towards vocationalization of education.
- iii) To suggest measures for effective implementation of vocational education in the district.

Major findings:

- i) There was no significant difference in the attitude towards vocationalisation of education between pre-university male and female rural and urban students; commerce and science students,
- ii) There was significant difference between tribal and non-tribal students; commerce and arts students, and art and science students.

Joshi, L. N. (1992) conducted a study on Vocational achievement and problem faced by students who had passed the +2 vocational education examination. The objectives of the study were;

- i) To get information about the vocational achievement of students who had passed their +2 examination in vocational education from the Rajasthan Board of Secondary Education (RBSE).
- ii) To obtain information about the loans taken by them.
- iii) To gather the opinion of the guardians of the students about vocational education and
- iv) To identify the problems faced by these students.

Major findings:

- i) Only 12.8% students were self-employed and the number of students employed by others was also the same.
- ii) 7.2% students working in vocations other than those they had studied.
- iii) While 15.4% remained unemployed, 51.6% were perusing higher education.
- iv) Thus, only 25.6% students obtained jobs through vocational education. No student could get loans from any agency for setting up his own enterprise.
- v) About 50% guardians admitted their wards in the vocational education course thinking that their wards would get employment; one-third of the guardians did so for making their wards self-employed while the rest of the guardians were uncertain about the aims of admission of their wards in vocational education courses.
- vi) A large number of students found the theory portion of their vocation courses very difficult.
- vii) Students faced problems in doing practical due to the lack of equipments tools and materials in the laboratories.

- viii) Schools faced lot of trouble in arranging on-the job training for students due to lack of cooperation from the concerned agencies.
- ix) The students who got jobs, too were not satisfied because of meagre salaries, lack of sufficient skill on their part, and job insecurity.

Saraswati, L. (1992) studied the Relationship between Personality dimensions and Vocational Interests of the Pupils of 10<sup>th</sup> Standard. The study was carried out with the following objectives, namely to -

- i) measure the various dimensions of personality of 10<sup>th</sup> standard students,
- ii) measure the vocational interest of 10<sup>th</sup> standard students,
- iii) recognize the relationship between the personality dimensions and vocational interests of 10<sup>th</sup> standard students,
- iv) see whether the vocational interests of 10<sup>th</sup> standard students were related to their academic achievements.

Major findings:

- i) There was no relationship found between the personality dimensions and the vocational interests of the 10<sup>th</sup> standard students.
- ii) There was also no relationship found between the academic achievement and the vocational interests of the 10<sup>th</sup> standard students.

Swarnalata, E. (1993) conducted a study on the educational and occupational aspirations of female undergraduate students in relation to their socio-economic status & their attitude towards equality of women. Objectives of the study were;

- i) To find out relationship among the dependent and independent variables used in the study.

- ii) To know the drawbacks that are existing in the present set up of our society and its systems, which can cripple the chances of the girl students in achieving higher positions and of their chance of serving society and herself in a better way.
- iii) To suggest ways of rectifying the defects existing in the system and
- iv) To suggest the path for optimum achievement and psychological well-being of the future generation.

Findings :

- i) Greater demand on Vocationalization of education.
- ii) The need for career education and educational counselling and guidance.
- iii) There are negative influences of socio-economic status to the aspirations of women study.

Sultana, R. (2001) conducted a Comparative Study of the Vocational Interest of the Students of IX Standard of Urdu and Marathi Medium Schools of Aurangabad City. Main objectives of the study were;

- i) To study the vocational interest of Marathi and Urdu Medium students of IX Standard.
- ii) To compare the vocational interest of Marathi medium students with that of Urdu medium students.
- iii) To find out the subjects related to vocations in the present syllabus of IX Standard.
- iv) To suggest measures to develop vocational interest among the students.
- v) To suggest different vocations to be included in the syllabus of IX Standard.

Findings :

- i) No significant difference was found between the mean scores on the vocational interest of the Urdu and Marathi medium students.
- ii) The jobs related to household were preferred by most of the girls in the sample.
- iii) The jobs related to social and scientific fields were preferred by most of the girls in the sample.
- iv) There is provision of vocational education in the syllabus of IX Standard, wherein, 28 vocations have been included.

Torcato, S. (2006) studied on Vocational Education Programme and Its Impact on Entrepreneurship Development Opportunities in Goa. The main objectives of the study were;

- i) To assess the role played by the VEP in entrepreneurship development and extending employment opportunities to the youth in the state of Goa.
- ii) To review the status of Vocational Education at the HSS and College level in the state of Goa, in terms of its infrastructure, teaching faculty, OJT facilities, and syllabi.
- iii) To find out areas where there is scope for new entrepreneurs and employment potentialities so that new vocational courses can be introduced accordingly.

Findings :

- i) There is lack of required infrastructure, shortage of suitable teaching faculty and no timely revision of curriculum, which are responsible to reduce the quality of the course.
- ii) The Vocational Education Programme (VEP) has not been successful in generating employment to all its pass outs.

- iii) It is partially true that VEP has not been able to produce confident and competent entrepreneurs.
- iv) It is also partially true that there is no distinction in curriculum between the commerce based courses of the vocational stream, and commerce based courses of the general stream.
- v) The vocational pass outs lack confidence in getting employed after completion of their course due to lack of proper entrepreneurship development classes and this diverts them to higher education.

Kuncheria, R. (2009) studied on the Educational & Vocational Problems and Needs of Students in the Vocational Higher Secondary Schools of Kerala. The objectives of the study were;

- i) To analyse educational problems of the students in vocational higher secondary schools in Kerala.
- ii) To study the educational needs of students in the vocational higher secondary schools in Kerala.
- iii) To study the vocational problems of students in the vocational higher secondary schools of Kerala.
- iv) To study the vocational needs of students in the vocational higher secondary schools of Kerala.
- v) To compare the educational and vocational problems and needs of students in the vocational higher secondary school students.
- vi) To analyse the vocational problems & needs of vocational higher secondary school students with respect to each vocation included in the vocational higher secondary curriculum.

- vii) To suggest measures for minimizing the educational & vocational problems of students in the vocational higher secondary schools of Kerala.

Findings :

- i) A high extent students of vocational higher secondary school experience several educational problems in curricular, co-curricular, infrastructural and administrative levels.
- ii) The vocational higher secondary school students experience several vocational problems in vocational practicals and also in connection with their field visits & vocational training.
- iii) The vocational higher secondary school students experience several vocational needs in vocational practicals & also in connection with their field visits and vocational training.
- iv) There is significant difference between the mean scores regarding educational & vocational problems and needs of students with respect to gender, locale, management & subject group.

Mattoo, M. (2011) carried out a comparative study on Vocational Interests and Academic Achievement of the Secondary School Students at different levels of Creative Thinking Ability. The objectives of the study were, to -

- i) search out the differences in scientific and outdoor interests of the high and low creative students,
- ii) search out the differences in academic achievement of the high and low creative students,
- iii) search out the effect of gender on scientific and outdoor interest of the high and low creative students,

- iv) search out the effect of gender on academic achievement of the high and low creative students,
- v) search out the degree of relationship between vocational interests (scientific and outdoor), creative thinking ability and academic achievement.

Findings :

- i) Scientific interest has been seen to go with high creativity. The variable of gender seems to contribute in scientific interest of the subjects.
- ii) Creativity thinking ability has shown a significant influence with respect to outdoor interest of the subjects. However, gender differences were found to exist.
- iii) High creativeness has been found to be higher in their academic achievement than low ones. However, gender could not differentiate the subjects on the index of achievement.
- iv) Scientific interest and outdoor interest are reported to be positively correlated. However, outdoor interest and academic achievement are weakly related to each other.

Hegiste, R. (2011) conducted a Sociological Study of the Vocational Education of Girl Students in Mumbai with the objectives,

- i) To understand the nature of vocational education.
- ii) To know the effectiveness of vocational education from the point of view of girl students
- iii) To realize the difficulties, advantages and disadvantages of medium of instruction in vocational education.



- iv) To understand the legislative difficulties in vocational education.
- v) To find out the strengths and weaknesses in Management of Vocational Education Programme.

Findings :

- i) It shows that after completing vocational education at 10+2 level, it is very difficult to start a vocation and earn sufficient money.
- ii) There might be a chance of a correlation between the feasibility study and the monthly salary.
- iii) Starting a vocational education course is to control unemployment in the nation.
- iv) Students have selected specific vocational courses because they are beneficial for them.
- v) 80 % colleges do not have vocational education at senior college level

Majumdar, S. (2012) studied about the Significance of Vocationalization of Education and Skill Development in India with special reference to the State of Maharashtra. The objectives of the study were to -

- i) study the present regulations on Vocational Education, Training and Skill Development sector in the country with the special reference to Maharashtra and find out the problems therein,
- ii) enquire and review the systems and methods made available to the students for obtaining vocational, industrial and technical training certificates and skills in India and in Maharashtra in particular and also identify problems therein,

- iii) study the prevalent policies of the Government for continuous training and development of faculties belonging to the sector of Vocational Education, Training & Skill Development,
- iv) study the problems allied with the low industry participation in the sector of Vocational Education and Skill Development,
- v) investigate the opportunities available for un-organized workforce for acquiring advanced skills, continuing education and life-long learning from the standpoint of social acceptability,
- vi) enquire the scope of further work in the sector of vocational education, training and skill development in India.

Findings :

- i) The students having XII<sup>th</sup> standard vocational/ two-year ITI certification were not given lateral entry into the equivalent academic year in the polytechnic diplomas.
- ii) The Private and Industry Participation were lacking behind. There was no provision of incentives for the private players to enter into the vocational education sector.
- iii) The regulations were found very rigid. Though the In-Service Training was required, but was not prevalent during the time of study. There was no opportunity available for continuous skill up-gradation.
- iv) For vocational students, there was no definite path to move from one level/ sector to another level / sector. The vocational students did not have a clear path as the mobility was not defined.
- v) There was no clear policy or system of vocational education to proceed for certification /degrees for the unorganized/ informal sector. For this purpose, no Credit System was also formulated.

- vi) One of the major reasons that affected the growth and popularity of vocational education sector was the social acceptability.
- vii) The expansion of vocational education sector was taken place without sorting out the present problems.

Thakor, H. P. (2013) conducted a Study of Vocational Interest of Higher Secondary School Students in context of some Variables. The main objectives of the study were;

- i) To construct vocational interest inventory to study vocational interest of higher secondary school students.
- ii) To study interest areas of students.
- iii) To study vocational interest of students in context of their gender.
- iv) To study vocational interest of students in context of their area
- v) To study vocational interest of students in context of their educational stream.

#### Major Findings :

- i) Students' gender effect was seen on their interest areas that were in favour of outdoor, technical and work from home related interest areas.
- ii) The girls have more interest in explanatory, art related, literature and music related interest areas then the boys.
- iii) There was no significant difference in boys and girls in mathematical, clerk, social, entertainment, music literary, explanatory, art related areas.
- iv) There was no significant difference of area on their interest areas.

- v) There was effect of educational stream on their interest areas. There was significant difference in outdoor, technical and work from home related interest areas and that is in favour of science stream students.
- vi) There was no significant difference in general and science stream students in social service, scientific, art related and music, entertainment related interest areas.

Doobal, S. (2014) conducted the study on Vocational Interest and Achievement Motivation of the Higher Secondary School Students in relation to the Gender, Area, Type of Family and Faculty. The major objectives of the study were;

- i) To Study the Vocational interest and Achievement Motivation of the Higher Secondary School Students in relation to their Gender, Area, type of Family and Faculty.

Major Findings :

- i) There was no significant mean difference between the Outdoor work interests of students in relation to their gender, area, type of family and faculty,
- ii) There was no significant mean difference between the Gender, Type of family and Faculty,
- iii) There was no significant mean difference between the Mechanical work interests of students in relation to their gender, area and type of family,
- iv) There was significant mean difference found between Mechanical work interests of the students in relation to their area and faculty,
- v) There was no significant mean difference found between Mechanical work interests of the students in relation to their Gender and Faculty,

- vi) There was significant mean difference found between Mechanical work interests of students in relation to Area and Type of family,
- vii) There was not significant mean difference between the Mechanical work interest of students in relation to Type of family and Faculty,
- viii) There was no significant mean difference between the Computational work interests of students in relation to their gender and area,
- ix) There was significant mean difference between the Computational work interests of students in relation to their area and type of family,
- x) There was significant mean difference between the Persuasive work interests of students in relation to Gender and Type of family,
- xi) There was no significant mean difference between the Persuasive work interests of students in relation to Area and Type of family,
- xii) There was significant mean difference found between Clerical Services work interests of the students in relation to their area and the type of their family.
- xiii) There was no significant mean difference found between Social Services work interests of the students in relation to their gender.
- xiv) There was significant mean difference found between the Social Services work interests of the students in relation to their area.
- xv) There was significant mean difference between the Achievement Motivation work interest of students in relation to Type of family and Faculty.
- xvi) There was significant mean difference between Achievement Motivation the students in relation to Gender, Area and Faculty.

Zavise, (2014) conducted a research study of the Vocational Guidance Programmes for Secondary Students of Nagaland. Main objectives of the study were;

- i) To search out the status of vocational guidance and career counseling programme in secondary schools in Nagaland.
- ii) To find out the awareness of school authorities, teachers and students of the need and importance of career counseling and guidance programmes for secondary students in Nagaland.
- iii) To study the problems face by schools regarding implementation of career counseling and vocational guidance programme.
- iv) To study the government policies and programmes on vocational guidance and career counseling in Nagaland.
- v) To identify the various factors that influence vocational and career decisions.
- vi) To explore and identify various methods and skills of career counseling and vocational guidance for the secondary students.
- vii) To identify the job-oriented and skill based vocational courses offered in various vocational training centers and identify the areas of guidance needs for secondary students of Nagaland.
- viii) To suggest remedial measures for improvement of vocational guidance and career counseling programmes for secondary students of Nagaland.

Major Findings :

- i) Heads of Secondary Schools having different background did not have any background in guidance and counseling though they were matured and they have long teaching and administrative experience.

- ii) Majority of secondary schools were without career guidance.
- iii) Absolute majority of Heads of secondary schools did not organize career exhibition, conference, career talk and seminar.
- iv) Only limited percentage of students were highly aware about the diversified courses after secondary level.
- v) Majority of Heads of secondary schools opined for career guidance and counseling programmes and it should form part of secondary school curriculum.
- vi) More than 50 percent students did not aware about the different vocational courses available for them after class-X.
- vii) 73 percent secondary students are lacking career consciousness.
- viii) 88 percent students opined that they were not informed well about vocational training and career opportunities.
- ix) Approximately all the Heads of secondary schools stated that they were required training in counseling and guidance.
- x) More than 50 percent Heads of secondary schools opined that there was no separate time provision for guidance programme.
- xi) Libraries of secondary schools are not equipped with sufficient career literatures which would be reserve for career guidance.
- xii) Majority of Heads of secondary schools opined for common platform for all school counselors.

### **2.3.2. STUDIES DONE ABROAD**

Holland, J. (1966) proposed that the individual choice of vocation is nothing but an expression of personality and self-concept, based on his premise that members

of a vocation be likely to have similar personalities and similar histories of personal development. Holland's study of vocational satisfaction, stability, and achievement depend on the congruency between individual personality and the environment.

Holland's (1985) theory of vocational interests is concerned with the description of i) how the people make their vocational choices, ii) what personal and environmental factors are conducive to vocational achievement.

In the theory, according to Holland (1966, 1985), this consists of three assumptions,

- i) The first assumption is that we can characterize people by their resemblance to one or more personality types.
- ii) The second assumption is that individual living environments can be characterized by their resemblance to one or more model environments.
- iii) The third assumption is that pairing of person and environment leads to several predictable outcomes that are understandable by our knowledge of personality types and the environmental models.

Holland affirms that people can be categorized as one of six types: (a) Realistic, (b) Intellectual, (c) Artistic, (d) Social, (e) Enterprising and (f) Conventional; all characteristic of heredity, culture and personal forces (i.e., parents and peers, social class, culture, and the physical environment). These six types are commonly referred as the R.I.A.S.E.C. types in acronym form.

Dade, B. E. (1969) conducted study entitled, 'A study of Relationship between Vocational Preference of 9<sup>th</sup> Grade Students and certain Selected Variables'. The main objective was -

- i) to see the relationship between vocational preference and certain selected variables, i.e. I.Q., Socio-economic status, School-achievements, parental



aspiration for the child, educational level of parents and family cohesiveness.

Findings :

- i) the co-efficients of correlation between vocational preference and intelligence of students were .22 and .06.
- ii) The co-efficients of correlation between vocational preferences and educational attainment of the parents of the students were .08 and .02, respectively.
- iii) The null hypotheses in support of no relationship among all the factors listed were accepted except in the case of parental vocational aspiration for the child and vocational preferences.

Churchill, W. D. (1970) carried a study entitled ‘A case-study Approach to the Investigation of Parental Influence on the Vocational Attitudes and Values of the Adolescent Males’. The study was conducted with the primary objective -

- i) to find out the influence of the parents on the development of vocational attitudes and values of adolescent males.

Findings :

- i) The findings indicated that for these families, the male adolescent’s vocational attitudes and values were derived from a complex of interactions within the family unit.
- ii) Further, it was shown that the type and kind of parental identification for the selected families seems to influence on the development of vocational attitudes and values, this element being the pattern of familial communication.

Poulin, D. A. (1972) conducted a study on the Effects of Career-orientation on Vocational Interests and Occupational Plans. The objective of the study was –

- i) to ascertain the effects of a 15-week career-orientation programme on student Vocational interests and occupational plans.

Findings :

- i) The findings demonstrated that the student's vocational interests and occupational plans were not strengthened or more consistent with aptitudes and result of career-orientation.
- ii) Furthermore, no relationship was found among the characteristics, sex, socio-economic status, intelligence, language background and vocational interests.
- iii) The occupational plans being positively altered or more consistent with aptitudes after career-orientation.

Peace, H. L. (1974) studied the Relationship of Self-Concept, Intelligence - Quotient, Grade-Point Average and Parental Education to Career-choice of Vocational and Non-Vocational High School Seniors. The objective of the study was –

- i) to ascertain the relationship of self-concept, intelligence quotient of high school grades and the level of parental education to career choice of vocational and non-vocational high school seniors in the selection of one of three career-choice groups.

Findings were :

- i) There was similarity in self-concept scores between vocational seniors and non-vocational seniors.

- ii) All seniors planning four years college attendance had similar intelligence-quotient scores and parents with similar educational attainment, Male non-vocational seniors had higher grade-point averages than did the male vocational seniors.
- iii) For seniors planning junior college attendance, no significant difference was found between self-concept scores of vocational seniors and non-vocational seniors.
- iv) Non-vocational seniors had significantly higher intelligence-quotient scores than vocational seniors and their fathers had less education than the fathers of vocational seniors. The mothers of male vocational seniors were significantly higher in educational attainment than the mothers in other group.
- v) Vocational seniors planning work without further education had a higher level of self-esteem than non-vocational seniors. Vocational female seniors scored significantly higher on self-concept scores than non-vocational female seniors.
- vi) The intelligence-quotient scores, parental education scores and grade-point averages for this group were similar.

Tipton, R. (1976) studied on Attitudes towards Women's Roles in Society and Vocational Interests. The main objective were,

- i) to study the attitudes towards women's roles in society,
- ii) to study the Vocational interest of women

Findings :

- i) The males and females were found more interested in the traditional vocation.

- ii) Similarly, the females were found more interested in the stereotyped and traditional vocation.
- iii) The women were found more interested also in the vocation related to the language.

Robinson-Lasoff, M. V. (1976) conducted an analytical study of Psychological and Sociological Factors related to Congruence between Expressed Vocational Choices and Inventoried Vocational Interests of Jamaican High School Seniors. Objectives of the study were :

- i) to investigate the relationship of specific sociological factors to level of vocational aspiration.
- ii) to investigate the various psychological and sociological factors those relate to congruence between stated vocational choices and measured vocational interests.

Findings :

- i) The study revealed that socio-economic status was not found to be significantly related to level of vocational aspiration but the type of school students attended and their sex showed a significant relationship with the level of their vocational aspiration.
- ii) The findings also suggested that these sociological factors may be relatively unimportant in their relationships to the congruence of vocational choice for Jamaican high school seniors.

Forde, C. A. (1978) conducted another analytical study of Occupational Preferences of Secondary School students in Guyana with particular reference to the Man-Power Needs of this country. The objective of the study were :

- i) to document the occupational preferences of the students.

- ii) to analyze the current relationship between these preferences and the manpower needs of Guyana.

Findings :

- i) The results showed the student's overwhelming preference for professional occupations, particularly in accounting, engineering, medicine, nursing and teaching.
- ii) The Socio-economic status and regional background had little effect on the student's occupational preferences.

Irwin, M. (1979) studied the influences on Vocational preferences of Grade-9 students in two new secondary schools in Jamaica. The main objective was –

- i) To find out the factors that influences vocational preferences of Grade-IX students.

Findings :

- i) The vocational interests of Jamaican students were influenced by expected rewards such as improvements in their socio-economic status, prestige (the level of esteem associated with occupations) and better relationship with peer groups.
- ii) Students were also influenced by the socio-economic activities that exist within their communities.
- iii) Students' vocational interests however were not realistic when their academic performances were taken into account.

Johnston, J. E. R. (1982) studied the Factors associated with Choice of Non-Traditional Careers by High School Girls. The objective of the study was –

- i) to determine whether there existed differences on certain personal and family variables between high school girls selecting traditional feminine careers and those choosing non-traditional male-dominated careers. The factors that influenced their choices were also investigated.

Findings :

- i) The study revealed that high school girls who had chosen non-traditional careers were having higher I.Q., higher grade-point average, higher parent's education and higher level of father's employment.
- ii) The rank-order of perceived influence was analysed for the two groups together. Mother was the most influential while father, teacher and other relatives were also influential.

Thongplee, C. (1985) carried out a Study of Non-formal Vocational Education Programme in the Educational Region of Thailand, with the major objectives;

- i) to study the organizational and administrative aspects of the non-formal vocational education programme,
- ii) to study the academic aspects of the programme, and
- iii) to study the relevance of the programme with reference to employment opportunities and professional growth of the products and their economic betterment.

The major finding were :

- i) A large number of administrators were trained graduates who had completed certificate courses on vocationalisation.
- ii) Around half of the instructors had completed primary and secondary education along with vocational certificates.
- iii) All the administrators insisted that all the instructors should undergo training programmes on non-formal education.

- iv) Many of them complained about lack of appropriate funds for managing the programmes,
- v) The physical facilities were not sufficient for conduct of programmes.
- vi) The majority of learners joined the courses for better utilization of their leisure, because of interest in the courses and to supplement their income.
- vii) Most of the learners were women and belonged to the 15-35 years age group.
- viii) The courses were in the areas of industry, home economics, business and agriculture.
- ix) Most of the administrators, teachers and learners stated that the training courses were relevant to their needs.
- x) Different methods of teaching, like seminar-cum-workshop, lecture-cum-demonstration and lectures were followed in the training programmes.
- xi) It was noticed that most of the graduates had remained unemployed after completion of courses.
- xii) A significant increase was not witnessed in terms of income of the products.

Cantor, L. (1989) studied the Vocational Education and training in the developed world with special reference to Japan as a well ordered society. The main objective of the study was,

- i) to study about vocational education and training in the developed world.

Findings :

- i) From the study, it was revealed that three quarters of vocational education was provided by industry, and the remaining quarter is run by educational establishments, public or private, approved by Ministry of Education and by the Ministry of Labour.

- ii) The study stated that VET provided within the educational system by secondary schools showed that commercial courses were dominated by girls.
- iii) Vocational schools were well equipped in case of both technical and commercial subjects. For example, those had the latest tools and equipment.

Hoskin, K. F. (1996) conducted a comparative study on Vocational Interest Types and Job Satisfaction in Adult Career Development – A Study of Unskilled Workers in Australia, with the objectives;

- i) To find out the differences in congruence levels between the workers who did not complete secondary school and those who did.
- ii) To find out the relationship in the unskilled group with reference to the skilled subjects groups.
- iii) To find out the relation between congruence and satisfaction.

Findings :

- i) There were no significant differences in congruence levels between the workers who did not complete secondary school and those who did.
- ii) The congruence was positively correlated with tenure in the skilled subjects group, but there was no such relationship in the unskilled group.
- iii) There were no significant correlations between congruence and satisfaction, in any of the subject groups, when tenure and education levels were controlled.

Sacheti, A. K. (2001) studied the Roles of evaluation for Vocational education and Training. Main objective of the study was -



- i) to examine the role of evaluation in providing new and more trustworthy information about Vocational Education and Training (VET) and about approaches and results of evaluation of VE and training in few countries of Western Europe in general and USA in particular.

Findings :

- i) The author had done a commendable job in bringing out the experiences of Western Europe and USA where evaluation played significant role in providing new and more trustworthy information about VET.
- ii) From the recommendations provided that have a more pragmatic approach to evaluation and useful for greater number of situations, context and purposes in countries looking ahead for evaluation of VET, the first recommendation is more relevant for the countries shifted totally to the market economy, i.e. Evaluation of VET programmes should never lose sight of labour market outcomes, but in addition they should be more concerned that they have been by the processes leading to these results.

Gideon, P. B. (2002) studied the relationship between Personality traits and Vocational interests among the individuals. The main objective was :

- i) To examine the relationship between the vocational interests and basic personality traits.

Major Findings :

- i) There was relationship found between the interest fields of the 19 Field-Interest Inventory with the second order factors of 16 Personality Factor Questionnaires in terms of the factor extension analysis.
- ii) The extroverts tend to be interested in the fields related to the social contact and they also influenced other people.

- iii) The emotionally sensitive individuals were tend to be interested in the field of arts and languages.
- iv) Independent individuals tend to be interested in creative thinking.

Haney, R. (2002) carried out a study on Secondary Student Perceptions of Vocational Education. The study was conducted to enquire;

- i) Do secondary school students' images of vocational education differ based on gender, race, academic performance, career awareness, and socio-economic factors?
- ii) Do secondary school students' perceptions of preparation for continued pathways beyond vocational education differ based on gender, race, academic performance, career awareness, and socio-economic factors ?
- iii) Do secondary school students' perceptions of vocational education teacher quality differ based on gender, race, academic perceptions, career awareness, and socio-economic factors?
- iv) Do secondary school students' perceptions of high school requirements for vocational education courses differ based on gender, race, academic performance, career awareness, and socio-economic factors?
- v) Do secondary school students' perceptions of primacy of care academics differ based on gender, race, academic performance, career awareness, and socio-economic factors?

Findings :

- i) The secondary school students' images of vocational education differ based on gender, race, academic performance, career awareness, and socio-economic factors.

- ii) The secondary school students' perceptions of preparation for continued pathways beyond vocational education do not differ based on gender, race, academic performance, career awareness, and socio-economic factors.
- iii) The secondary school students' perceptions of vocational education teacher quality do not differ based on gender, race, academic perceptions, career awareness, and socio-economic factors.
- iv) The secondary school students' perceptions of high school requirements for vocational education courses do not differ based on gender, race, academic performance, career awareness, and socio-economic factors.
- v) The secondary school students' perceptions of primacy of care academics differ based on gender, race, academic performance, career awareness, and socio-economic factors.

Gulshan, R. (2006) studied the impact of parents, teachers and role models/mentors on the problem of under representation of women in the field of computer science. He studied with the following objectives.

- i) To find out the opportunities available for women in computer science and the extent to which the three factors (parents, teachers and role models/mentors) impact women in taking up these opportunities.
- ii) To find out the impact of the three factors (parents, teachers and models/mentors) in retaining and increasing the number of women in computer science.

Findings :

- i) The study revealed that the three factors (parents, teachers and role models/ mentors) had a significant impact on taking women towards or away from computer science.

- ii) The study indicated the relative order of importance of the three factors in their impact of women in this order : Parents – Role models/mentors- Teachers.
- iii) The impacts of strong, supportive relationships will continue to have a significant impact upon anyone who takes on the field of computer science as a profession.

Pizzuto, Debra (2009) studied the Vocational Interests in Indian Country and also examined the Rural Public Education and Culture.

Main purpose of the study were, to –

- i) investigate the native students, their interests and career choice.
- ii) examine the differences among the native American students and the Euro-American teachers with the help of Holland's Self Directed Search (1994).

Findings :

- i) The Native American students had unique though different, cultural socialization towards the public school system. Inference was made that the native students would show greater interest in culturally matched Self Interests and Career Choices which would differ from their teachers' perception about them were supported.
- ii) Secondly, the Native American students as well as their teachers show significantly different types of interests namely in realistic, artistic, investigative, Social and Enterprising.
- iii) The Conventional type was only found to be the interest by the students and teachers for the students.

- iv) The study suggested that a large group of sample of the Native Students and Euro-Teachers be required to examine further so examine the relationship between the career choices and cultural interests in their dominating society.

Miller, L. A. (2012) carried out a study on Career Decision Self-Efficacy in Pre-Service Teachers. The objectives of the study were;

- i) To search out the relationship between gender and subscale of career decision self-efficacy of pre-service teachers.
- ii) To find out the relationship of student age to the subscales of career decision self-efficacy of pre-service teachers.
- iii) To find out the relationship between ethnicity and the subscales of career decision self-efficacy of pre-service teachers.
- iv) To find out the relationship between socio-economic status and the subscales of career decision self-efficacy of pre-service teachers.
- v) To find out the relationship between parents educational level and the subscales of career decision self-efficacy of pre-service teachers.

Findings:

- i) Females have significantly higher career decision self-efficacy than males in the occupational information subscale.
- ii) The pre-service teachers in this study have a positive level of confidence in their ability to make and execute career endeavor activities and decisions.
- iii) Females have more career decision self-efficacy in working with people and occupation requiring social interactions.
- iv) Age seems to affect career maturity and career decision self-efficacy.

- v) The pre-service teachers that have children were significantly higher in career decision self-efficacy.
- vi) The education level of father and mother did not impact the career decision self-efficacy of the pre-service teachers.

Robinson, B. S. (2012) conducted a research study on Gender Differences in Vocational Interests of Youth Considering High Job Growth and Green Energy Occupations. The study was carried out to enquire;

- i) What were the expressed occupational interests of youth towards working in high job growth occupations examined the study?
- ii) To what degree were there significant differences in the degree of occupational interest expressed by male and female youth towards working in each occupation?
- iii) To what degree does the proportion of male and female youth expressing interest in working in non-traditional occupations for their gender to perform significantly differ?

Findings :

- i) Female youth expressed higher occupational interest scores toward more occupation than did the male youth participants.
- ii) Female youth recorded higher total occupational interest scores towards science occupations. Male youth did express significantly higher interest scores toward engineering occupations.
- iii) Significant difference in expressed occupational interest was most evident when male & female youth scored interest toward working in non-traditional occupations for each gender to perform in the workplace.

Otta, F. E. and others (2012) conducted a study on Self-concept and Vocational interest among secondary school students. The main objective was :

- i) To investigate and examine the Self Concept and Vocational Interest among the secondary school students of Ohafia Education Zone of Abia State.

Findings :

- i) There was a significant relationship found between the self-concept and vocational interest of the secondary school students.
- ii) The adolescents those had high vocational interest moved towards the scientific, computational, literary, persuasive and social services interest areas.
- iii) The adolescents those had low vocational interest moved towards mechanical and outdoor activities, musical and artistic interest areas.
- iv) In the area of vocational interest, there was no significant difference found among the males.

Su, R. (2012) studied the Power of Vocational Interests and Interest Congruence in Predicting Career Success, with the following objectives :

- i) Does interest have incremental validity over and beyond ability and personality in predicting academic & work performance.
- ii) Does interest congruence contribute to the prediction of performance.
- iii) Find out the determinants of career success. What factors are responsible for the differential career attainment of men & women.

Findings :

- i) Results supported the incremental validity of interest beyond ability and personality. Interests appeared to be the most powerful contributor to income and were important determinants of degree attainment and occupation prestige.
- ii) The power of interest congruence in predicting academic and work performance varied by criterion and the importance of each interest factor was different.
- iii) Among all the individual difference variables, interests were the most important channels through which gender operated and influenced career success. Factors like, gender difference, wage gap, number of children are also the responsible factors.

Tambawal, M. U. (2013) studied the Relationship Between Parental Socio-Economic Status and Vocational Aspiration of Male & Female Senior Secondary School Students in Sokoto State. The major objectives of the study were;

- i) To discover the relationship between parental socio-economic status and vocational aspiration female among senior secondary school student in Sokoto Sate.
- ii) To find out the difference between the vocational aspirations of male and female students of senior secondary school in Sokoto State.

Findings :

- i) There was significant relationship between parental socio-economic status and vocational aspiration of male & female among senior secondary school student in Sokoto State.
- ii) There was significant relationship between vocational aspirations of male and female students in Sokoto State.



Bastien, R. (2014) conducted a study on Career Development alongwith Factors Influencing the Vocational Interests of Secondary School Students at the Prestige High School in West Indies.

The study aimed to evaluate the cross-cultural applicability of Holland's RIASEC model and determine the extent to which students' personality traits and demographic characteristics such as gender, age/grade, socio-economic status and curriculum stream affect their vocational interests. Research questions were,

- i) Does the structure of Holland's RIASEC model hold true for students at the Prestige High School ?
- ii) Is there a relationship between personality traits and the work-related interests of students at the Prestige High School ?
- iii) Do demographic factors such as gender, socio-economic status and curriculum stream influence the work related interests of students at the Prestige High School ?

Findings :

- i) Holland's RIASEC model was useful in classifying career clusters of the students as five of the six clusters were found.
- ii) Students' work related interests were influenced by their personalities.
- iii) Students' work related interests were influenced by their gender.
- iv) There was a relationship between age/form and work related interests.
- v) Subject clusters chosen were related to work related interests.
- vi) The socio-economic status of students influenced their work related interests.

## 2.4. SUMMARY

Total forty research studies carried out in India alongwith twenty four research studies conduct outside India relevant to the present study were reviewed and discussed with their objectives and findings. A few studies were conducted to find out the measures for effective vocational programme. Few studies revealed that due to lack of proper finance and infrastructure from Centre and State, vocational education programmes could not be made successful in the past. There were no sufficient teachers to teach the vocational subjects. In the study conducted by H. V. Gokhale (1984) found that the service conditions of teachers teaching vocational subjects were such that they kept good teachers away from these subjects. The grants provided by government were insufficient for imparting practical training. R. Kuncheria (2009) found that a high extent students of vocational higher secondary school experience several educational problems in curricular, co-curricular, infrastructural and administrative levels.

Regarding vocational guidance and counseling, a few studies were carried out in India, which are not at all sufficient. B. Dasgupta (1972), found that the school guidance services required more social acceptance. In the said study it was found that many guardians were truly conscious towards the guidance for their children. The Career-masters needed more time for engaging with the guidance work. E.C. Thrasia (1983) opined that through close observation, guidance and counselling children would be directed to various practical courses according to their abilities, aptitudes as well as national and immediate local needs. Courses in vocationalization and self-employment would be given in all classes. M. N. Mowji (1983) pointed out that the students of Junior colleges had to face different educational and vocational problems and these were happened due to the absence of guidance programme in their schools and colleges. The main purpose of the 10 + 2 + 3 was vocationalization; but it was completely failed as everybody joined the academic stream in the absence of any vocational stream. Schools and colleges had not properly trained teachers. Besides, the syllabuses and books were

designed/ prepared without considering the actual need, interest and level of the students.

Mary John, (1981) found that vocational interests of adolescents were directly related to their socio-economic status. Similarly, R. M. Haney (2002) found that the secondary school students' images of vocational education differ based on gender, race, academic performance, career awareness and socio-economic factors. Few studies revealed that many vocational courses designed for students were not according to the demand of students and were not related with the local needs.

N. T. Khobragade (1990) pointed out that most of the SC/ST girl students did not take part in curricular and extra-curricular activities. There were marked differences between SC/ST boys and girls in the perception of their vocational selections and these differences were in favour of boys rather than girls. There was a significant effect on family background in case of boys and girls in making the environment a vocational.

Saraswati, L., (1992) found no relationship between the personality dimensions and vocational interests of the students. Moreover, there was no relationship found between the vocational interests and the academic achievement of 10<sup>th</sup> standard students. In the study conducted by Sultana, R., (2001) found that the jobs related to household were preferred by most of the girls in the sample. The jobs related to social and scientific fields were preferred by most of the girls in the sample. There was provision of vocational education in the syllabus of IX Standard, wherein, 28 vocations have been included.

Gideon, (2002) found that the people who were the extroverts appeared to be interested in social contact field and they also influenced other people. Those who were emotionally sensitive people, they appeared to be interested in the fields

like arts and languages. The individuals those were independent appeared to be interested in the field of creative thinking.

The study conducted by Haney, R. M., (2002), found that the secondary school students' images of vocational education differed based on gender, race, academic performance, career awareness, and socio-economic factors. The secondary school students' perceptions of preparation for continued pathways beyond vocational education did not differ based on gender, race, academic performance, career awareness, and socio-economic factors. Their perceptions of vocational education teacher quality did not differ based on gender, race, academic perceptions, career awareness and socio-economic factors.

Torcato, S., (2006) found that there was lack of required infrastructure, shortage of suitable teaching faculty and no timely revision of curriculum, which were responsible to reduce the quality of the course. The Vocational Education Programme (VEP) had not been successful in generating employment to all its pass outs. It was also partially true that there was no distinction in curriculum between the commerce based courses of the vocational stream, and commerce based courses of the general stream. The vocational pass outs lacked confidence in getting employed after completion of their course due to lack of proper entrepreneurship development classes and this diverts them to higher education.

In the study conducted by Mattoo, M. I., (2011), found that Scientific interest had been seen to go with high creativity. The variable of gender seemed to contribute in scientific interest of the subjects. Creativity thinking ability had shown a significant influence with respect to outdoor interest of the subjects. However, gender differences were found to exist. Scientific interest and outdoor interest were reported to be positively correlated. However, outdoor interest and academic achievement were weakly related to each other.

Hegiste, R., (2011) found that after completing vocational education at 10+2 level, it was very difficult to start a vocation and earn sufficient money. Starting a

vocational education course is to control unemployment in the nation. Students had selected specific vocational courses because they were beneficial for them.

The study of Mazumdar, S. S., (2012) revealed that the students those had the 12<sup>th</sup> Standard vocational or two-year ITI certification were not allowed lateral entry may be due to the absence of proper policy for mobility, into the equivalent academic year in the polytechnics. Private and Industry Participation was lacking. There was no opportunity for continuous skill up-gradation. Since the mobility was not defined, so the students did not have any definite path to shift from one level or sector to another level or sector. One of the main issues like social acceptability of skilled manpower was found which greatly affected the growth in the sector of vocational education. Though there were lots of problems found in the sector of vocational education, still expansion was taking place in the sector without sorting out the ongoing problems.

Otta, F. E. and Others (2012) found the significant relationship between the self-concept and the vocational interest of the secondary school students. The adolescents those had high vocational interest moved towards the scientific, computational, literary, persuasive and social services interest areas. Similarly, the adolescents those had low vocational interest moved towards the mechanical, musical, artistic and outdoor activities. Moreover, no significant difference was found in vocational interest among the male students.

The study of Tambawal, M. U., (2013) revealed that there was significant relationship between parental socio-economic status and vocational aspiration of male & female among senior secondary school student in Sokoto State. There was significant relationship between vocational aspirations of male and female students in Sokoto State.

Thakor, H. P., (2013) found that students' gender effect was seen on their interest areas that were in favour of outdoor, technical and work from home related interest areas. The girls had more interest in explanatory, art related, literature and

music related interest areas than the boys. There was effect of educational stream on their interest areas. There was significant difference in outdoor, technical and work for home related interest areas and that is in favour of science stream students. There was no significant difference in general and science stream students in socials service, scientific, art related and music, entertainment related interest areas.

Zavise, (2014) in his study found that more than 50 percent students did not aware about the different vocational courses available for them after Class-X, were lacking career consciousness and were not informed well about vocational training and career opportunities. Libraries of secondary schools were not equipped with sufficient career literature.

## **2.5. CONCLUSION**

After reviewing the above literature, it was felt that more studies need to be conducted out to find out the lacunas hidden in the field of vocational education. Though the Government is putting special interest on skill development by introducing vocational course curriculum specially in school level, still there are lots of hindrances to make the programme successful. A few studies tried to bring out the hidden barriers of vocational education. Besides, a least number of studies tried to find out the psychological factors including the interest of students responsible for slow progress of vocational education in India.

During 2014, the central government re-designed the vocational education programmes for secondary and higher secondary level and implemented the same by sponsoring mode. The Govt. is giving more importance on Skill development by introducing different vocational courses. Assam, being a part of mainstream India, has already geared up for implementing the said vocational education programmes in secondary level. But in the context of Assam and specially in

Lakhimpur District, no such comprehensive studies relating to this field have been carried out till date.

So it was felt quite essential to enquire whether the programme is effective and relevant to the students. Whether courses are designed according to the need and interest of the students or more subjects required to be included in course curriculum. How the courses will be made familiarize and assigned to the students? What should be the strength of manpower as well as infrastructure for execution of the programme? Finally, what will be the future prospects for the students after achieving those programmes? These are some questions that need to be considered at length.

## **Chapter - 3**

### **METHODOLOGY AND PROCEDURE OF THE STUDY**

#### **3.1. INTRODUCTION**

In social science research, a proper and suitable methodology has to be followed in every stage for searching out the hidden facts. After identifying a felt difficulty or problem, it is imperative to find out a plan of action or strategy how to reach the point of settlement. A well planned strategy or a procedure helps the researcher to find out the solution of predefined problem minimizing time and effort. It also helps the researcher to concentrate his mind in the determined way till completion of his work. Besides, the said methodology transforms the whole problem-solving work into a scientifically proven study or work.

#### **3.2. METHODOLOGY AND PROCEDURE OF THE STUDY**

Methodology refers to a particular way to search the research questions systematically, to collect, verify or discover a set of data and to find out all the answers till conclusion. Methodology involves different stages of the plan of action which are to be adopted in solving a research problem.

In this study, the Descriptive type survey method was followed which facilitates means for field-data collection as well as provides techniques to study, describe and interpret what exists at present. By this method, the identified phenomena can be investigated in natural setting which allows the investigator to collect and measure the data. Furthermore, it also allows classification, analysis, comparison and interpretation of data.

Similarly, the research procedure or research design refers to a detailed outline of how an investigation will take place.



In the present study, the following passages give clarity on how data was collected, what tools were constructed, how the tools were used and what were the means for treating the collected data.

### **3.3. POPULATION OF THE STUDY**

In educational and psychological research, the word ‘population’ indicates to a definite group of human beings as well as of non-human entities for example, objects, time units, wages, geographical areas, performance of students, financing, educational institutions, etc. The population contains both finite population having finite numbers and infinite population with infinite numbers.

In the present study, the main population includes all the Class-IX Students and heads of institutions of Assam Government and Assam Government’s Provincialized Secondary and Higher Secondary Schools of Lakhimpur District. As per Student Enrollment data published by NUEPA, New Delhi, the total enrollment in Class-IX was 15,602 numbers in Lakhimpur District during the year 2015-16, where boys numbered 7,417 and girls numbered 8,185.

### **3.4. SAMPLE OF THE STUDY**

With a view to serve a useful purpose, the sample of the study was drawn out cautiously to achieve a proper representation. Garrett (1962, p.208) pointed out that if the size of the sample is less than 25, there is often little reason for believing such a small group of units to be adequately descriptive of any population. If a greater precision of results in an investigation is needed, the sample should be larger. Greater precision is sometimes needed when one is dealing in areas where differences are likely to be small. If the differences between that variables under study are large or when variables are highly correlated, relative small samples can be used because greater precision is not needed. If the differences are small, a greater precision is needed to locate them,

and so larger samples are needed. Keeping those aspects in mind, effort was made to deal with large size of samples as possible.

In the present study, the students of Class-IX, studying in 20 % of the total number of Assam Government and Assam Government's Provincialized Secondary and Higher Secondary Schools of Lakhimpur District, numbering 237 were considered to form the sample of the study.

During the time of proceeding for field survey, it was seen that few junior colleges having only higher secondary level, but without secondary level i.e. without Class-IX & X, were there in the total number of schools i.e. 237 nos. Besides, few Madrassas and Sanskrit tols, where management, teaching learning materials and methods are quite different, were also there. Due to these reasons at the later stage, such schools were excluded and as a result, total 227 numbers Assam Government and Assam Government's Provincialized Secondary and Higher Secondary Schools of Lakhimpur District were taken into account.

Accordingly, the students of Class-IX studying in 20 % of the total number of Assam Government and Assam Government's Provincialized Secondary and Higher Secondary Schools of Lakhimpur District, numbering 227 finally formed the sample of the study. The sample so selected/formed finally, reflected equal representation of the actual quantum of population of both Urban and Rural localities covered under the study.

a) Sample Students of Class-IX :

Students	Rural	Urban	Total	Total number of sample
Boys	439	53	492	1036
Girls	509	35	544	

The above said 20% schools were selected by using Cluster and Simple Random Sampling Methods. All the sample schools were selected by using Research Randomizer (online software) with the aim to reduce error and biasness.

The investigator had selected following numbers of Heads of Schools including all the Heads of sample schools which represented for 36 % (approx.) of the total population :

b) Sample Heads of Schools :

Category	Total
Total Schools in Lakhimpur District	227
Total Heads of Schools in Lakhimpur District	213*
Total sample Heads of Schools selected	76

*\* excluding the schools where no Heads were available.*

### 3.5. TOOLS USED

#### (A) Vocational Interest Record (VIR)

The Vocational Interest Record (VIR), (version 2012), developed and standardized by Dr. S. P. Kulshrestha, was used to collect data. The VIR has been found constantly under use for the purpose of testing-practicum in different universities especially in the subject of Education and Psychology. Moreover, the Guidance workers also used this tool with the purpose of finding out vocational interests in respect of their clients.

##### *Purpose :*

The primary objective of the Vocational Interest Record is to assess the vocational interests of the students and making them able to select available subjects according to their interested vocations.

##### *Description of the Test :*

The Vocational Interest Record consists of total 200 vocations which belong to the different vocational interest areas :

- 1) For Literary (L) field, the VIR includes total 20 vocations namely, Editor, Language specialist, Translator, Critic, Journalist, Poet, Writer, Language teacher, etc.
- 2) For Scientific (Sc) field, the VIR includes total 20 vocations namely, Mechanical Engineer, Civil Engineer, Scientist, Health Officer, Medical Representative, Astrologer, Botanist, Science Teacher, etc.
- 3) For Executive (E) field, the VIR contains total 20 vocations such as, President, Mayor of Corporation, Hospital Superintendent, Army Officer, Judge, Police Superintendent, School Inspector, Manager, etc.
- 4) For Commercial (C) field, the VIR includes total 20 vocations for example, Secretary, Shopkeeper, Accountant, Ticket Collector, Income Tax Officer, Salesman, etc.
- 5) For Constructive (Co) field also, there are 20 vocations in the VIR, namely Goldsmith, Radio Mechanic, Dyer, Carpenter, Potter, Teacher of Art Crafts, Welder, etc.
- 6) For Artistic (A) field, the VIR includes total 20 vocations for example, Singer, Dancer, Music Director, Photographer, Painter, Cartoonist, Sculptural, etc.
- 7) For Agriculture (Ag) field also, the VIR contains 20 vocations, such as Farmer, Gardener, Soil Specialist, Animal Husband, Breeder, Agri. Inspector, Seedstone Officer, Dairyman, etc.
- 8) For Persuasive (P) field, the VIR contains another 20 vocations namely Member of Parliament/ Legislative Assembly, Insurance Agent, Vocational Counsellor, Ambassador, Advocate, Religious preacher, Tourist-guide, etc.
- 9) For Social (S) field, the VIR includes total 20 vocations for example, Scout & Guide, Red-cross Worker, Religious Reformer, Honorary Teacher, Guide, Social worker, etc.
- 10) For Household (H) field also, the VIR includes total 20 vocations namely, Cooker, Embroider, Home Science Teacher, Nurse, Home manager, Home Decorator, etc.

By this way, the Vocational Interest Record comprises with the total two hundred vocations or jobs relevant to ten broad vocational areas and each of the vocational area of the total ten, contains total twenty numbers of vocations/ jobs/ assignment in the order or sequence like ten in horizontal and ten on vertical side.

*Administration of the Vocational Interest Record :*

The Vocational Interest Record is the self-administering tool that may be applied on an individual or in group.

*Instructions for testees :*

The instructions in the front page of the record, given to the testees or students, are as follows :

- 1) Two vocations are mentioned in each box of the inventory. One can mention his/ her choice by putting tick mark if likes or cross mark if dislikes from the two vocations given in each blank box, keeping in view their salary, prestige and future.
- 2) For completion of the test, approximately 7 to 10 minutes time is required. Instructed to complete answer quickly though no time limit is set for.
- 3) After marking the vocational choice of each box return the inventory record i.e. the response sheet to the investigator.

*Scoring Procedure :*

Under each vocational interest area, there is the provision of possible maximum score of 20 and 0 is the minimum. For each right marked (✓) responses, 1 mark has to be assigned and thereafter count out the total scores under each interest area. Scores summed up for all the ten different vocational interest areas, then required to be transcribed area-wise on the profile.

*Sample :*

The V.I.R. has been standardized on a sample of 1050 students of delta class and 700 students of high school grade of different institutions of U.P. and M.P.

provinces. Stratified random sampling was employed for selection the representative group.

*Reliability :*

The test retest reliability co-efficient is .69 with the 15 days' time interval.

*Validity :*

- 1) For validation of Vocational Interest record, only the highly valid items were initially selected from the Strong's Vocational Interest Blank, Thurston's Interest Schedule, Kuder's Preference Record Form C, etc.
- 2) The obtained scores on the Vocational Interest Record were correlated with the parent's, teacher's and friend's opinion with reference to the interests of the students and by this way, the co-efficient of validity was obtained as 0.81, 0.83 and 0.85 respectively.
- 3) When the Vocational Interest Record was validated with the Vocational Interest Inventory of Labh Singh, co-efficient of validity was found as 0.74.
- 4) The results obtained from the follow up studies carried out on the students by administering the Vocational Interest Record were compared and as a result, co-efficient of correlation was obtained about 0.80 and is found significant at .01 level of significance.

*The Norms & Interpretation of the Vocational Interest Record :*

The obtained scores can be interpreted by both quantitatively as well as qualitatively.

Moreover, interest scores can be presented in the order of hierarchy through the profile and by this way the level of interest namely, main, second, third and the least interest area can be expressed by counting the frequencies of each vocational interest area. Besides, the percentage can be obtained for each interest area. Following this procedure, qualitative interpretation of the scores can be made.

The second way for interpretation of the scores is the quantitative method. For making quantitative analysis, obtained scores can be classified according to the following prescribed norms of the Vocational Interest Record.

Classification	Range of Scores
High Interest	18 – 20
Above Average Interest	14 – 17
Average Interest	7 – 13
Below Average Interest	4 – 6
Low Interest	0 – 3

**(B) Interview Schedule for the Head of the Schools**

As per the objective of the study, an Interview Schedule was developed for conducting interviews with the Heads of all the sample schools. The said interview schedule was designed with the aim to find out the problems faced by schools in implementing Vocational Education, to suggest measures towards development of vocational interest among the students as well as for effective vocational guidance and counselling.

*Preparation & development :*

At first, considering the requirement based on objectives of study, some questions/ points were listed out to obtain sufficient information. Then, all the listed questions/ points were thoroughly reviewed by the investigator and addition, deletion, modification were done and thereupon, a draft interview schedule was prepared. Again the draft interview schedule was sent to the subject/ research experts in the field of education and psychology alongwith the research objectives. Based on the comments and recommendations of the experts, few items were kept original, few were altered. Accordingly, the final interview schedule was prepared and ensured that it was satisfactory as well as adequate as per the objectives of the study.

In the final interview schedule, there were total ten (10) questions designed only for the Heads of schools. The first four items were to indicate the problems faced by schools in implementing Vocational Education, item nos. 5 to 8, to bring out suggestive measures to develop vocational interest among the students and the item nos. 9 to 11, to bring out the measures for effective vocational guidance & counselling.

*Validity and Reliability of the Interview Schedule :*

The interview was semi structured, thus ensured that significant information was elicited to ensure content validity. The critical judgment of experts in the field of enquiry remained helpful while selecting the essential questions. The validity of an answer was checked by immediately cross examining the interviewee.

Reliability or the consistency of the responses was evaluated by restating a question in slightly different form while filling up the schedule.

**(C) Syllabus Review Checklist**

A Syllabus Review Checklist was constructed to find out and identify the various subjects related to vocations offered in the syllabus of Class IX which was prescribed by Board of Secondary Education, Assam. Care was taken to refer to the latest syllabus at the time of conducting the review.

The other point which was considered was to conduct a review on the contents of the subjects related to vocations in terms of both Theoretical Knowledge and Practical Experiences.

**3.6. DATA COLLECTION**

Data collection is essentially an important part of the research process so that the hypotheses, inferences or generalizations tentatively held may be identified as valid, verified as correct, or rejected as untenable. Besides, for drawing right inferences or conclusion, collected data must be reliable.



After taking into account all the important points noted above, relevant data or information were collected only from the primary sources as far as possible.

### **Procedure for Data Collection**

For collection of relevant data, a permission letter was first drafted addressing the Inspector of Schools, Lakhimpur District, Assam, who is the controlling as well as supervisory authority of the Secondary as well as Higher Secondary Schools of Lakhimpur District, Assam.

After getting approval and signature from the research Supervisor, the fair copy of the permission letter was handed over to the Inspector of Schools by the investigator himself. The main purpose of the letter was to seek permission from the Inspector of Schools for conducting survey on the students and to take interview of the Heads of Schools in the selected 45 no's of sample schools.

In response to the above said letter, the Inspector of Schools issued the permission letter for conducting survey/ interview in the selected schools and also requested all the Heads of Schools to extend co-operation and assistance in all respect to the investigator.

Thereafter, referring to the letter issued by Inspector of Schools, the investigator personally issued letter to all the Heads of sampled schools with the request to give permission and extend co-operation for execution of the test/ interview in their schools.

After obtaining permission from the Heads of sampled schools, the investigator visited the schools and introduced him to the students and explained the purpose of visit. After the introductory part, the students were given the test i.e. V.I.R. with proper instructions. Students were requested to respond to each item. Assurance was given to the students that the information/ data so arrived out would be used solely for research study and would be kept confidential. Sufficient time was allotted to make their responses. All the respondents were very co-operative with the investigator.

When the students finished answering all the items, the test booklets cum Answer Scripts were collected. Numerical values were assigned to each response following the scoring guidelines of the V.I.R.

Again for conducting interview, the Heads of Schools were met personally by the investigator on different days. Before taking interview, a detailed explanation on the purpose of the research study was given to the Heads of Schools who were the Interviewees. The investigator tried to give understanding to the interviewees about the actual motive of the interview and they were requested to respond naturally for the success of the interview. Thereafter the investigator himself asked the questions and recorded the responses of the interviewees. While recording the responses, the outlook of the respondents was also taken in to account. The Interviewees co-operated well and it was considered that adequate responses were obtained.

### **3.7. TECHNIQUES USED**

#### **(A) STATISTICAL TECHNIQUES USED**

The statistical techniques specially contribute means for gathering, organizing, analyzing and interpreting numerical data. The processing of numerical data through statistics calls for competence in the use of statistical methods and for understanding of concepts that underline their development and their application.

In the present study, the Descriptive statistical techniques viz. Mean and Standard Deviation were used.

##### **Mean (M) :**

This is also known as arithmetic average or arithmetic mean. This technique is used to compare two observed groups or two sets of observed data. The mean of set of observations or scores is obtained by dividing the sum of all the values by

the total number of values. In the present study, the following formula for calculating Mean of un-grouped data was used :

$$M = \frac{\sum X}{N}$$

Where,

M = Mean

$\sum$  = Sum of

X = Score of boys and girls in each field.

N = total number of boys and girls in the sample/ sample size.

#### **Standard Deviation ( $\sigma$ ) :**

The Standard Deviation ( $\sigma$ ) can be defined as the square root of the sum of square of deviation of each score or observation from their respective mean and divided by the size of the sample. Similarly, the variance can be defined as the average of squared deviations of the scores or measures from their mean. The standard deviation is nothing but the positive square root of the variance.

This technique is used for getting a complete picture of the data and to know how the scores tend to be distributed. It is a very useful device for comparing characteristics that may be quite different or that may be expressed in different units of measurement. It serves as a means of describing status or position of an individual or a score in a group or a distribution. In the present study, the following formula was used :

$$\sigma = \sqrt{\frac{\sum x^2}{N}}$$

where,

$\sigma$  = Standard Deviation

$\Sigma$  = Sum of

$x^2$  = square of deviation of the raw score from the mean

N = number of scores or measures

Due to the limitations in descriptive statistical techniques which allow only for describing the properties of particular samples, inferential statistical technique viz. t-test was used to make generalizations or inference about the populations based on the observations or characteristics of the samples.

**t-test :**

Inferential statistical technique viz. 't-test' was used as per characteristics of quantitative data obtained in this study and to make generalizations or inferences about the populations based on the observations or characteristics of samples with a known degree of accuracy.

Formula,

$$t = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

Where,

$M_1$  = Mean of first group.

$M_2$  = Mean of second group.

$\sigma_1$  = Standard Deviation of first group.

$\sigma_2$  = Standard Deviation of second group.

$N_1$  = Sample size of first group.

$N_2$  = Sample size of second group.

For calculation of the statistical values, the investigator used the Statistical Software package viz. OpenStat alongwith the manual calculation. Besides, Microsoft Excel was also used for calculation and cross checking of values.

## **(B) OTHER TECHNIQUES USED**

### **Syllabus Review**

Syllabus Review was made to find out the subjects related to vocations in the syllabus of Class-IX as demanded by Objective No. 2. For this purpose, the contents of the subjects including their theoretical and practical components were reviewed with the help of a simple checklist.

### **Logical Analysis**

For searching out the problems faced by schools in implementing Vocational Education, means to develop vocational interest among the students, and ways for effective vocational guidance & counselling, the investigator proceeded systematically and rationally to address all the issues come under these domains.

## **3.8. CONCLUSION**

The methodology and procedure was itself a comprehensive package for the investigator to search out multiple factors directly or indirectly related with the problem, to gather data or information using suitable tools and appliances and to measure them with the help of different techniques. In the present study, the investigator followed the above stated methodology and procedure from the time of data collection, analysis and interpretation of data till logical conclusion. The data characteristics demanded both quantitative and qualitative approach.

## **Chapter - 4**

### **DATA ANALYSIS AND INTERPRETATION OF RESULTS**

#### **4.1. INTRODUCTION**

According to De Vos (1998), ‘data analysis entails that the analyst break down data into constituent parts to obtain answers to research questions and to test hypotheses. The analysis of research data does not in its own provide the answers to research questions’. In this study, Data obtained in quantitative form or in numerical, were organized, classified, tabulated and processed as required. Data obtained in qualitative form or in text, were also segregated according to the order of test stimulies placed in the research tool.

#### **4.2. OBJECTIVES OF THE STUDY**

1. To compare the vocational interest, namely, in Literary, Scientific, Executive, Commercial, Constructive, Artistic, Agriculture, Persuasive, Social, House-held fields, between Boys and Girls of Class-IX in general and as per their locale (rural-urban).
2. To find out the subjects related to vocations in the present syllabus of Class-IX.
3. To find out the problems faced by schools in implementing Vocational Education.
4. To suggest measures to develop vocational interest among the students.
5. To suggest measures towards effective vocational guidance & counselling.

#### **4.3. HYPOTHESES**

1. There is no significant difference between boys and girls in Literary interest.

2. There is no significant difference between boys and girls of rural areas in Literary interest.
3. There is no significant difference between boys and girls of urban areas in Literary interest.
4. There is no significant difference between boys and girls in Scientific interest.
5. There is no significant difference between boys and girls of rural areas in Scientific interest.
6. There is no significant difference between boys and girls of urban areas in Scientific interest.
7. There is no significant difference between boys and girls in Executive interest.
8. There is no significant difference between boys and girls of rural areas in Executive interest.
9. There is no significant difference between boys and girls of urban areas in Executive interest.
10. There is no significant difference between boys and girls in Commercial interest.
11. There is no significant difference between boys and girls of rural areas in Commercial interest.
12. There is no significant difference between boys and girls of urban areas in Commercial interest.
13. There is no significant difference between boys and girls in Constructive interest.
14. There is no significant difference between boys and girls of rural areas in Constructive interest.
15. There is no significant difference between boys and girls of urban areas in Constructive interest.
16. There is no significant difference between boys and girls in Artistic interest.
17. There is no significant difference between boys and girls of rural areas in Artistic interest.

18. There is no significant difference between boys and girls of urban areas in Artistic interest.
19. There is no significant difference between boys and girls in Agriculture interest.
20. There is no significant difference between boys and girls of rural areas in Agriculture interest.
21. There is no significant difference between boys and girls of urban areas in Agriculture interest.
22. There is no significant difference between boys and girls in Persuasive interest.
23. There is no significant difference between boys and girls of rural areas in Persuasive interest.
24. There is no significant difference between boys and girls of urban areas in Persuasive interest.
25. There is no significant difference between boys and girls in Social interest.
26. There is no significant difference between boys and girls of rural areas in Social interest.
27. There is no significant difference between boys and girls of urban areas in Social interest.
28. There is no significant difference between boys and girls in House-held interest.
29. There is no significant difference between boys and girls of rural areas in House-held interest.
30. There is no significant difference between boys and girls of urban areas in House-held interest.

#### **4.4. ANALYSIS OF DATA AND INTERPRETATION**

In this Chapter, collected data were analysed by using suitable techniques according to the order of research objectives and set hypotheses. For analyzing the quantitative data, i.e. to compare the variables, Mean, Standard Deviation & t-



value were computed. Graphical presentations were also made as far as possible. For analyzing the qualitative data, syllabus review as well as logical analysis was made. After analysis of data, interpretations were made to bring the findings to an intelligible and interpretable form so that recommendations and conclusions could be drawn out.

#### **4.5. COMPARISON OF VOCATIONAL INTEREST IN DIFFERENT FIELDS**

Regarding the data pertains to vocational interest, data analysis and interpretations were made as follows in ten selected vocational fields separately. The data comparison in each vocational field was also made to fulfill the need of the pre-determined objective as well as to test the formulated hypotheses.

##### **4.5.1. VOCATIONAL INTEREST IN LITERARY FIELD**

Table 08 : Percentage of Students falls under different interest groups in Literary field

Sl. No.	Interest Groups	Range of Raw Scores	Boys		Girls	
			Percentage (approx.)	Numbers	Percentage (approx.)	Numbers
1	High Interest	18-20	0	0	0	1
2	Above Average Interest	14-17	2	8	1	8
3	Average Interest	7-13	41	204	44	241
4	Below Average Interest	4-5	22	106	22	118
5	Low Interest	0-3	35	174	32	176

From the Table 08, it was clear that nobody had expressed high interest in Literary field. Only 2 % boys had above average interest against 1 % girls.

Similarly, 41 % boys had average interest against 44 % girls. The 22 % boys had below average interest against 22 % girls and 35 % boys showed low interest against 32 % girls. Majority of students had shown average interest in Literary field. On the other hand, approximate one third of the students had low interest in said field. Girls’ interest was just higher than the interest of boys.

Figure 01 : Percentage of Boys’ interest in Literary field

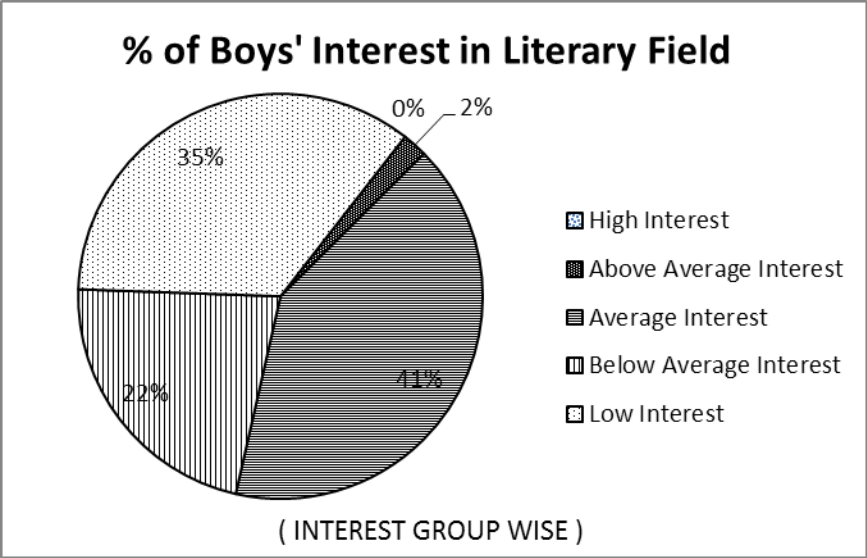


Figure 02 : Percentage of Girls’ interest in Literary Field

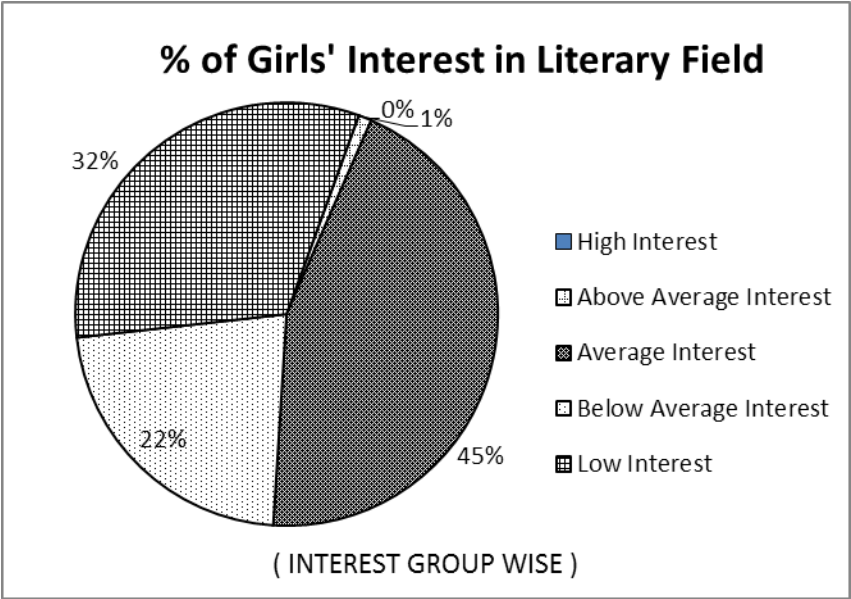
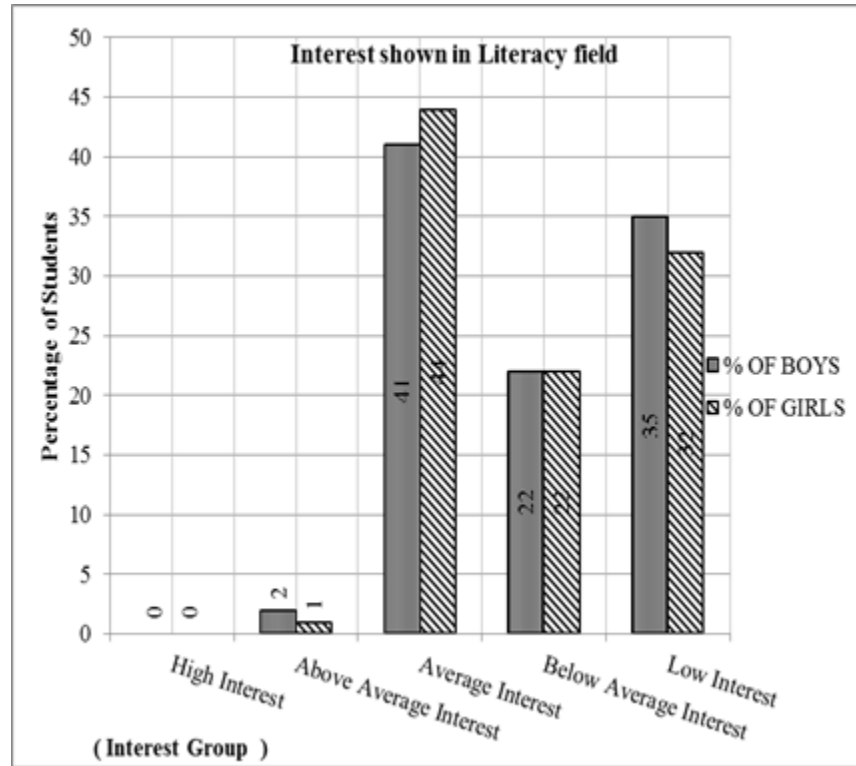


Figure 03 : Interest shown in Literary field (Group-wise)



### Literary Interest between boys and Girls

Table 09 : Results of Statistical measures in case of boys and girls in Literary field

Fields	Literary (L)	
Gender	Boys	Girls
Total Number (Sample Size)	492	544
Mean	5.516	5.787
Standard Deviation	3.836	3.893
Standard Error of Mean	0.173	0.167
t-value	1.127	
Degrees of Freedom	1034	
Confidence Interval	0.95	

As per Table 09, the Mean values in respect of Boys and Girls were 5.52 and 5.79 only. Similarly, Standard deviation was 3.836 in respect of boys and 3.893 in respect of girls. The Standard Error of Mean was obtained as 0.173 for boys and 0.167 for girls. The obtained t-value 1.127, was not significant at 0.05 level.

As such it was opined that there was no significant difference between boys and girls in Literary Interest. Therefore, the Hypothesis ( $H_1$ ) was accepted.

### **Literary Interest between Boys and Girls of Rural Areas**

Table 10 : Results of Statistical measures in case of rural boys and girls in Literary field

<b>Fields</b>	<b>Literary (L)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	439	509
<b>Mean</b>	5.458	5.776
<b>Standard Deviation</b>	3.841	3.863
<b>Standard Error of Mean</b>	0.183	0.171
<b>t-value</b>	1.267	
<b>Degrees of Freedom</b>	946	
<b>Confidence Interval</b>	0.95	

From the Table 10 above, the Mean values in respect of Boys and Girls were 5.46 and 5.78 only.

Similarly, Standard deviation was 3.841 in respect of boys and 3.863 in respect of girls. The Standard Error of Mean was obtained as 0.183 for boys and 0.171 for girls. The obtained t-value 1.267, was not significant at 0.05 level.

As such, the Hypothesis ( $H_2$ ) was accepted with conclusion that there was no significant difference between boys and girls of rural areas in Literary interest.

### Literary Interest between boys and Girls of Urban Areas

Table 11 : Results of Statistical measures in case of urban boys and girls in Literary field

Fields	Literary (L)	
Gender	Boys	Girls
Total Number (Sample Size)	53	35
Mean	6	5.943
Standard Deviation	3.798	4.365
Standard Error of Mean	0.522	0.738
t-value	0.065	
Degrees of Freedom	86	
Confidence Interval	0.95	

As per Table 11, the Mean values in respect of Boys and Girls were 6.00 and 5.94 only. Similarly, Standard deviation was 3.798 in respect of boys and 4.365 in respect of girls. The Standard Error of Mean was obtained as 0.522 for boys and 0.738 for girls. The obtained t-value 0.065, was not significant at 0.05 level.

As such, the Hypothesis ( $H_3$ ) was accepted with conclusion that there was no significant difference between boys and girls of urban areas in Literary interest.

### 4.5.2. VOCATIONAL INTEREST IN SCIENTIFIC FIELD

Table 12 : Percentage of Students falls under different interest groups in Scientific field

Sl. No.	Interest Groups	Range of Raw Scores	Boys		Girls	
			Percentage (approx.)	Numbers	Percentage (approx.)	Numbers
1	High Interest	18-20	1	3	1	4

2	Above Average Interest	14-17	12	57	10	56
3	Average Interest	7-13	46	228	49	267
4	Below Average Interest	4-5	19	92	16	87
5	Low Interest	0-3	23	112	24	130

From the Table 12, it was obtained that only 1 % boys and girls had high interest in Scientific field. 12 % boys had above average interest against 10 % girls, Similarly, 46 % boys had average interest against 49 % girls. The 19 % boys had below average interest against 16 % girls and 23 % boys showed low interest against 24 % girls.

Majority of students had shown average interest in Scientific field. On the other hand, approximate one fourth of the students had low interest in said field. Girls' interest approximately equal with the interest of boys.

Figure 04 : Percentage of Boys' interest in Scientific field

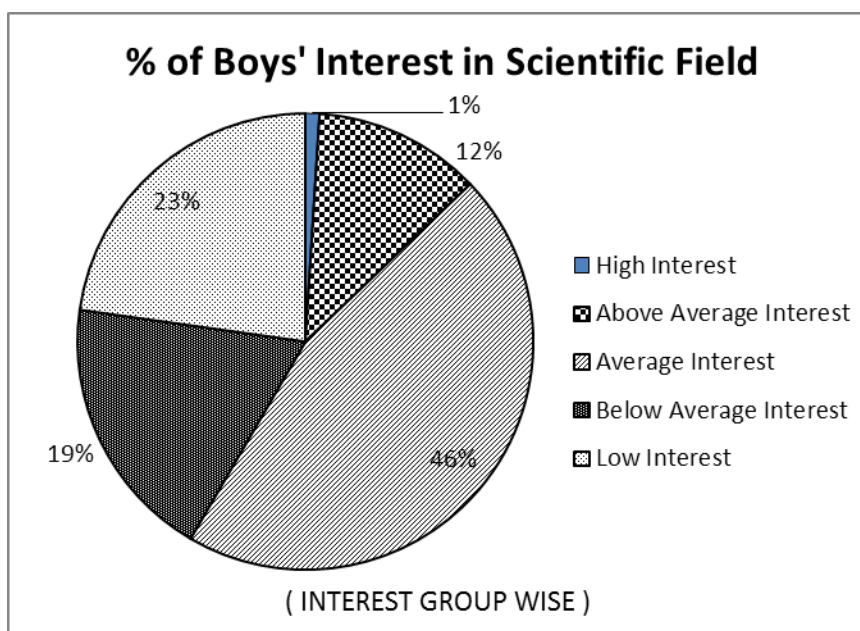


Figure 05 : Percentage of Girls' interest in Scientific Field

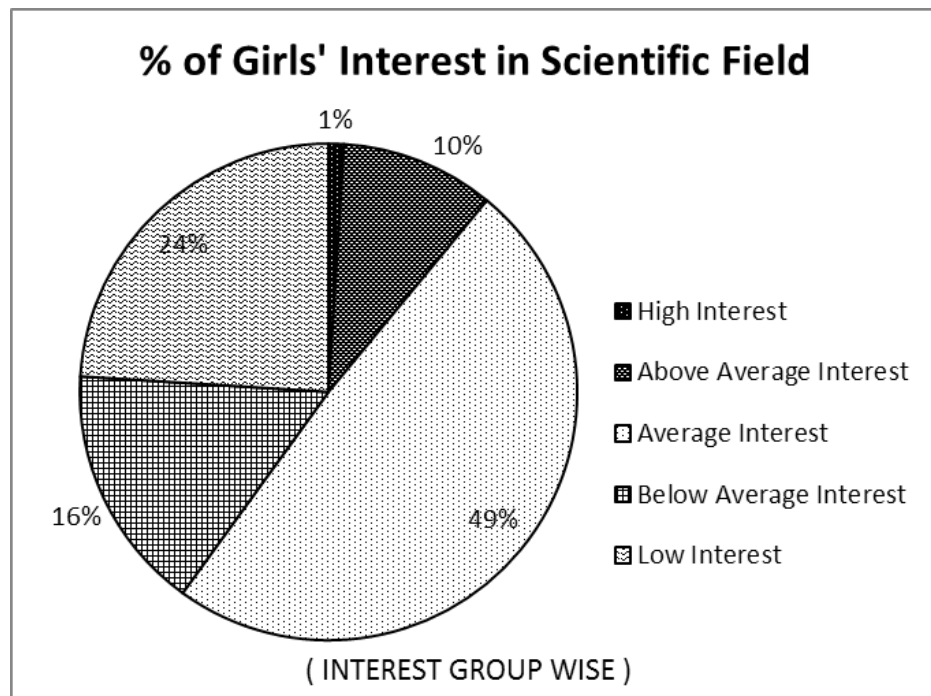
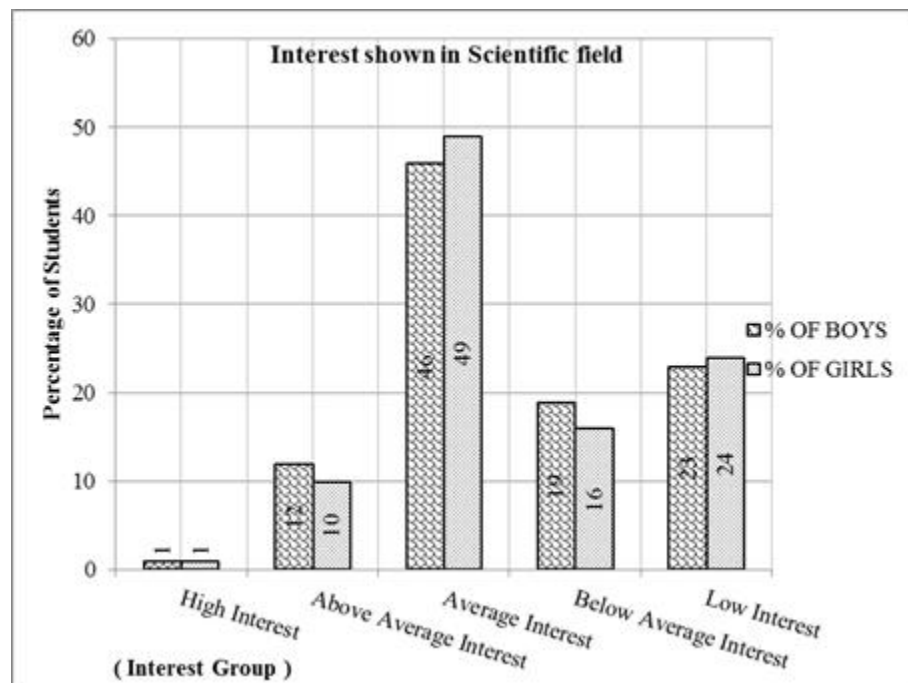


Figure 06 : Interest shown in Scientific field (Group-wise)



### Scientific Interest between Boys and Girls

Table 13 : Results of Statistical measures in case of boys and girls in Scientific field

Fields	Scientific (SC)	
Gender	Boys	Girls
Total Number (Sample Size)	492	544
Mean	7.70	7.70
Standard Deviation	4.686	4.689
Standard Error of Mean	0.211	0.201
t-value	0	
Degrees of Freedom	1034	
Confidence Interval	0.95	

As per Table 13 above, the Mean values in respect of Boys and Girls were 7.70 and 7.70 only. Similarly, Standard deviation was 4.686 in respect of boys and 4.689 in respect of girls. The Standard Error of Mean was obtained as 0.211 for boys and 0.201 for girls. The obtained t-value 0, was not significant at 0.05 level.

Therefore, it is concluded that there was no significant difference between boys and girls in Scientific Interest. Hence, the Hypothesis ( $H_4$ ) was accepted.

### Scientific Interest between boys and Girls of Rural Areas

Table 14 : Results of Statistical measures in case of rural boys and girls in Scientific field

Fields	Scientific (SC)	
Gender	Boys	Girls
Total Number (Sample Size)	439	509
Mean	7.44	7.71
Standard Deviation	4.664	4.682
Standard Error of Mean	0.223	0.208



<b>t-value</b>	0.887
<b>Degrees of Freedom</b>	946
<b>Confidence Interval</b>	0.95

The Table 14 showed Mean values as 7.44 and 7.71 in respect of Boys and Girls. Similarly, Standard deviation was 4.664 in respect of boys and 4.682 in respect of girls. The Standard Error of Mean was obtained as 0.223 for boys and 0.208 for girls. The obtained t-value 0.887, was not significant at 0.05 level.

As such, the Hypothesis ( $H_5$ ) was accepted with conclusion that there was no significant difference between boys and girls of rural areas in Scientific interest.

#### **Scientific Interest between boys and Girls of Urban Areas**

Table 15 : Results of Statistical measures in case of urban boys and girls in Scientific field

<b>Fields</b>	<b>Scientific (SC)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	53	35
<b>Mean</b>	9.81	7.43
<b>Standard Deviation</b>	4.359	4.846
<b>Standard Error of Mean</b>	0.599	0.819
<b>t-value</b>	2.40	
<b>Degrees of Freedom</b>	86	
<b>Confidence Interval</b>	0.95	

As per Table 15 above, the Mean values in respect of Boys and Girls were 9.81 and 7.43 only. Similarly, Standard deviation was 4.359 in respect of boys and 4.846 in respect of girls. The Standard Error of Mean was obtained as 0.599 for boys and 0.819 for girls. The obtained t-value 2.40, was significant at 0.05 level.

As such, the Hypothesis ( $H_0$ ) was rejected with conclusion that there was significant difference between boys and girls of urban areas in Scientific interest.

#### 4.5.3. VOCATIONAL INTEREST IN EXECUTIVE FIELD

Table 16 : Percentage of Students falls under different interest groups in Executive field

Sl. No.	Interest Groups	Range of Raw Scores	Boys		Girls	
			Percentage	Numbers	Percentage	Numbers
1	High Interest	18-20	1	5	1	5
2	Above Average Interest	14-17	13	64	14	75
3	Average Interest	7-13	52	255	51	279
4	Below Average Interest	4-5	17	85	15	82
5	Low Interest	0-3	17	83	19	103

From the Table 16, it was revealed that only 1 % boys and girls have high interest in Executive field. 13 % boys had above average interest against 14 % girls. Similarly, 52 % boys had average interest against 51 % girls. The 17 % boys had below average interest against 15 % girls and 17 % boys showed low interest against 19 % girls.

Majority of students had shown average interest in Executive field. On the other hand, approximate one fifth of the students had low interest in said field. Boys' interest approximately equal with the interest of girls.

Figure 07 : Percentage of Boys' interest in Executive field

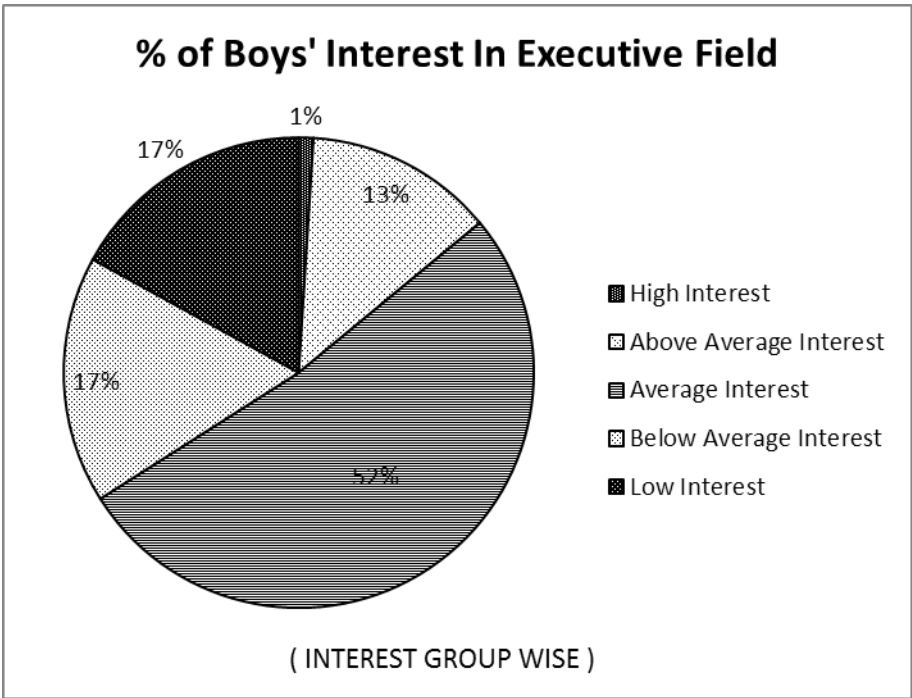


Figure 08 : Percentage of Girls' interest in Executive Field

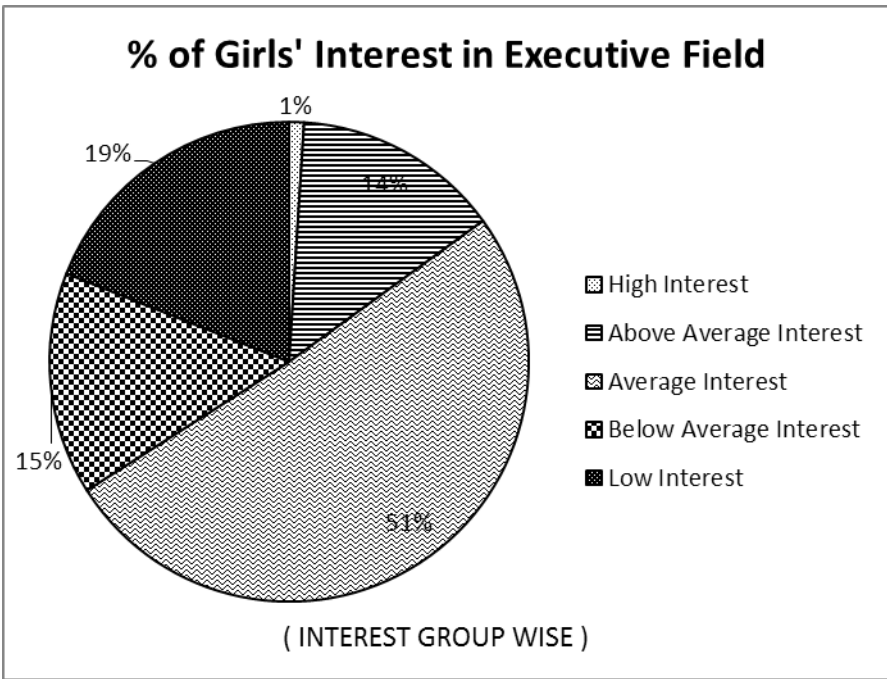
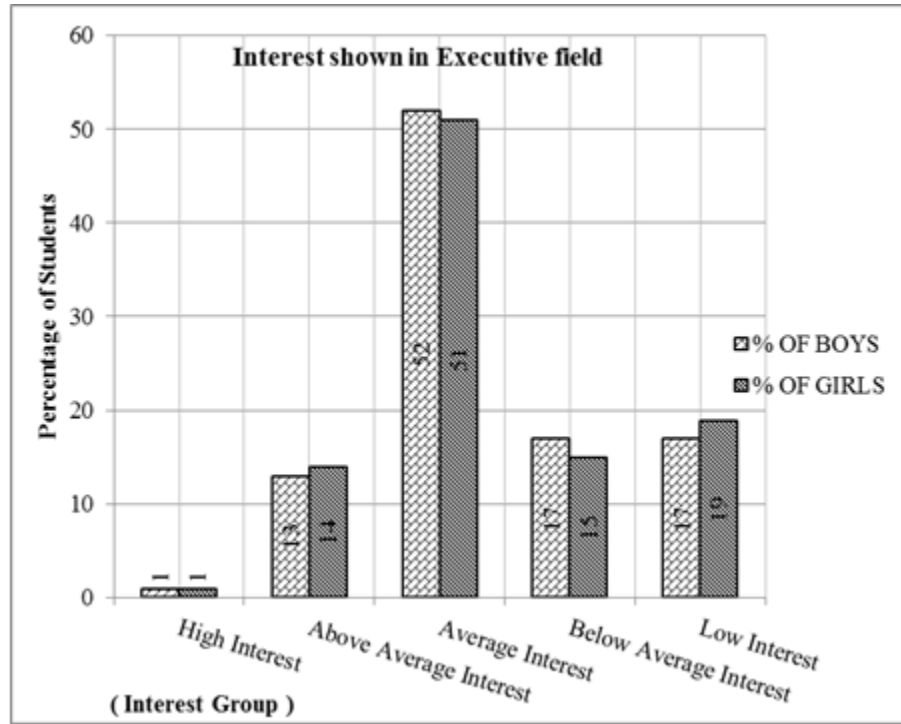


Figure 9 : Interest shown in Executive field (Group-wise)



### Executive Interest between Boys and Girls

Table 17 : Results of Statistical measures in case of boys and girls in Executive field

Fields	Executive (E)	
Gender	Boys	Girls
Total Number (Sample Size)	492	544
Mean	8.43	8.42
Standard Deviation	4.518	4.650
Standard Error of Mean	0.204	0.199
t-value	0.028	
Degrees of Freedom	1034	
Confidence Interval	0.95	

As per Table 17 above, the Mean values in respect of Boys and Girls were 8.43 and 8.42 only.

Similarly, Standard deviation was 4.518 in respect of boys and 4.650 in respect of girls. The Standard Error of Mean was obtained as 0.204 for boys and 0.199 for girls. The obtained t-value 0.028, was not significant at 0.05 level.

It meant, there was no significant difference between boys and girls in Executive Interest. Therefore, the Hypothesis ( $H_7$ ) was accepted.

### **Executive Interest between Boys and Girls of Rural Areas**

Table 18 : Results of Statistical measures in case of rural boys and girls in Executive field

<b>Fields</b>	<b>Executive (E)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	439	509
<b>Mean</b>	8.37	8.43
<b>Standard Deviation</b>	4.617	4.660
<b>Standard Error of Mean</b>	0.220	0.207
<b>t-value</b>	0.172	
<b>Degrees of Freedom</b>	946	
<b>Confidence Interval</b>	0.95	

From the Table 18 above, the Mean values in respect of Boys and Girls were 8.37 and 8.43 only.

Similarly, Standard deviation was 4.617 in respect of boys and 4.660 in respect of girls. The Standard Error of Mean was obtained as 0.220 for boys and 0.207 for girls. The obtained t-value 0.172, was not significant at 0.05 level.

As such, the Hypothesis ( $H_8$ ) was accepted with conclusion that there was no significant difference between boys and girls of rural areas in Executive interest.

### Executive Interest between Boys and Girls of Urban Areas

Table 19 : Results of Statistical measures in case of urban boys and girls in Executive field

Fields	Executive (E)	
Gender	Boys	Girls
Total Number (Sample Size)	53	35
Mean	8.85	8.29
Standard Deviation	3.602	4.573
Standard Error of Mean	0.495	0.773
t-value	0.644	
Degrees of Freedom	86	
Confidence Interval	0.95	

As per Table 19, the Mean values in respect of Boys and Girls were 8.85 and 8.29 only. Similarly, Standard deviation was 3.602 in respect of boys and 4.573 in respect of girls. The Standard Error of Mean was obtained as 0.495 for boys and 0.773 for girls. The obtained t-value 0.644, was not significant at 0.05 level.

As such, the Hypothesis ( $H_0$ ) was accepted with conclusion that there was no significant difference between boys and girls of urban areas in Executive interest.

#### 4.5.4. VOCATIONAL INTEREST IN COMMERCIAL FIELD

Table 20 : Percentage of Students falls under different interest groups in Commercial field

Sl. No.	Interest Groups	Range of Raw Scores	Boys		Girls	
			Percentage	Numbers	Percentage	Numbers
1	High Interest	18-20	0	2	0	1
2	Above Average Interest	14-17	1	3	2	12

3	Average Interest	7-13	40	199	43	232
4	Below Average Interest	4-5	23	113	22	118
5	Low Interest	0-3	36	175	33	181

As per Table 20, nobody had shown high interest in Commercial field. 1 % boys had above average interest against 2 % girls. Similarly, 40 % boys had average interest against 43 % girls. The 23 % boys had below average interest against 22 % girls and 36 % boys showed low interest against 33 % girls.

Majority of students had shown average interest in Commercial field. On the other hand, approximate one third of the students had low interest in said field. Girls' interest was higher than the interest of boys.

Figure 10 : Percentage of Boys' interest in Commercial field

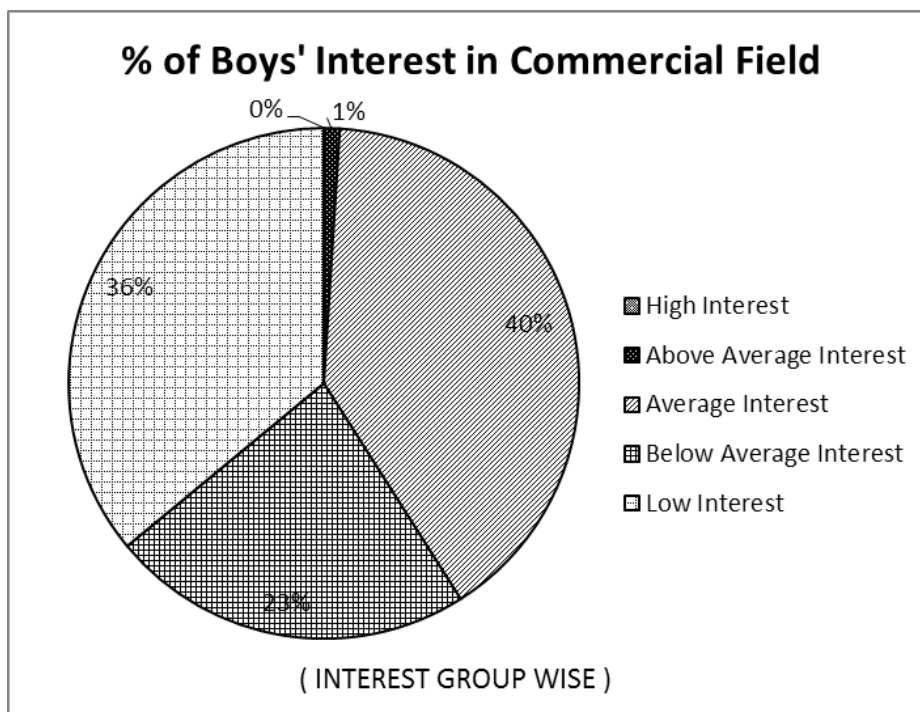


Figure 11 : Percentage of Girls' interest in Commercial Field

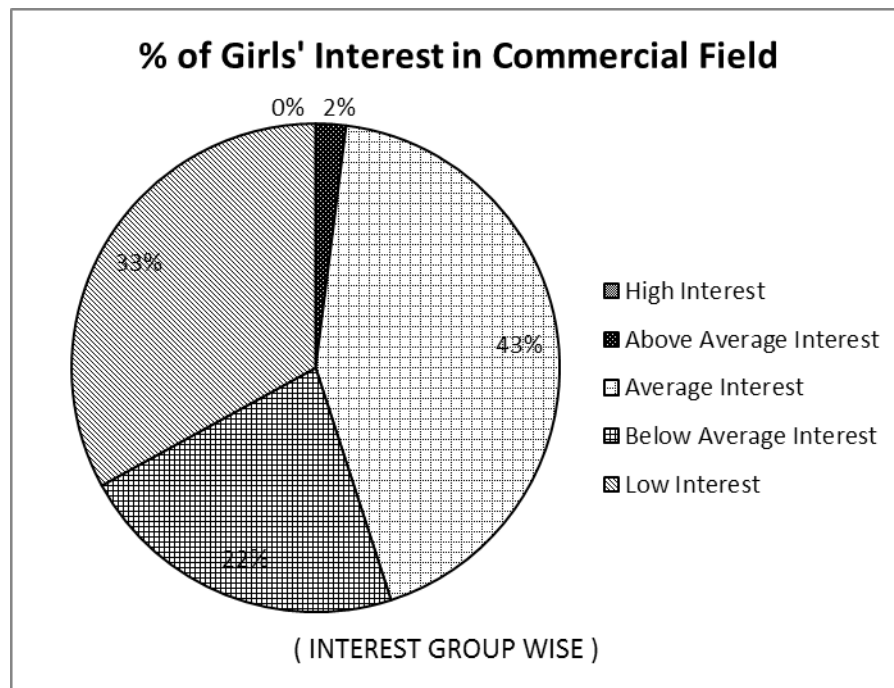
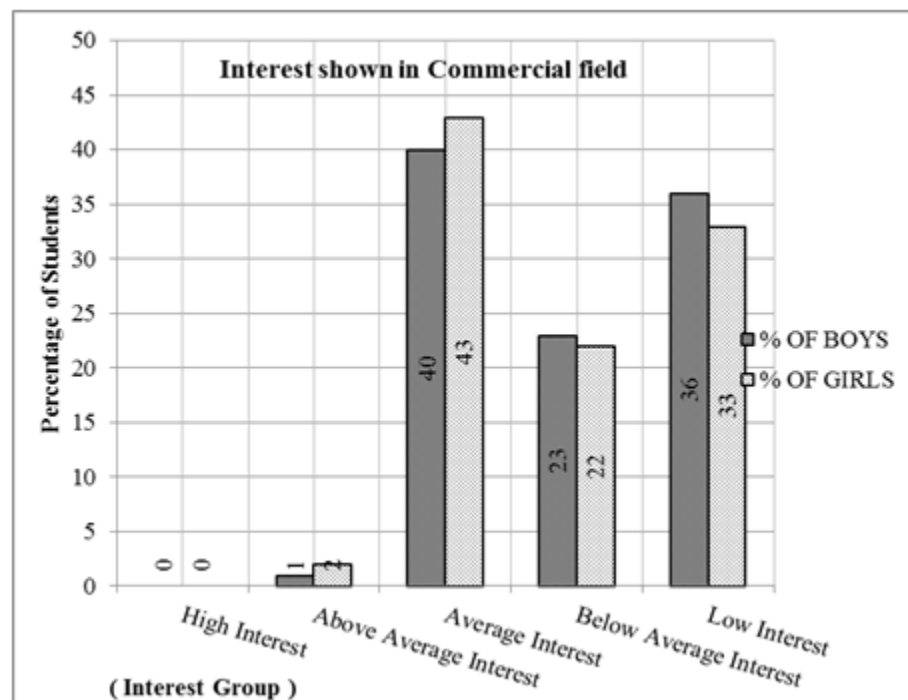


Figure 12 : Interest shown in Commercial field (Group-wise)





### Commercial Interest between Boys and Girls

Table 21 : Results of Statistical measures in case of boys and girls in Commercial field

<b>Fields</b>	<b>Commercial (C)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	492	544
<b>Mean</b>	5.52	5.76
<b>Standard Deviation</b>	3.908	4.061
<b>Standard Error of Mean</b>	0.176	0.174
<b>t-value</b>	0.955	
<b>Degrees of Freedom</b>	1034	
<b>Confidence Interval</b>	0.95	

As per Table 21, the Mean values in respect of Boys and Girls were 5.52 and 5.76 only. Similarly, Standard deviation was 3.908 in respect of boys and 4.061 in respect of girls. The Standard Error of Mean was obtained as 0.176 for boys and 0.174 for girls. The obtained t-value 0.955, was not significant at 0.05 level.

So the conclusion come that there was no significant difference between boys and girls in Commercial Interest. As such, the Hypothesis ( $H_{10}$ ) was accepted.

### Commercial Interest between Boys and Girls of Rural Areas

Table 22 : Results of Statistical measures in case of rural boys and girls in Commercial field

<b>Fields</b>	<b>Commercial (C)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	439	509
<b>Mean</b>	5.44	5.74
<b>Standard Deviation</b>	3.913	4.038
<b>Standard Error of Mean</b>	0.187	0.179

<b>t-value</b>	1.157
<b>Degrees of Freedom</b>	946
<b>Confidence Interval</b>	0.95

The Table 22, showed Mean values as 5.44 and 5.74 in respect of Boys and Girls. Similarly, Standard deviation was 3.913 in respect of boys and 4.038 in respect of girls. The Standard Error of Mean was obtained as 0.187 for boys and 0.179 for girls. The obtained t-value 1.157, was not significant at 0.05 level.

As such, the Hypothesis ( $H_{11}$ ) was accepted with conclusion that there was no significant difference between boys and girls of rural areas in Commercial interest.

### **Commercial Interest between Boys and Girls of Urban Areas**

Table 23 : Results of Statistical measures in case of urban boys and girls in Commercial field

<b>Fields</b>	<b>Commercial (C)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	53	35
<b>Mean</b>	6.23	6.09
<b>Standard Deviation</b>	3.826	4.422
<b>Standard Error of Mean</b>	0.526	0.747
<b>t-value</b>	0.158	
<b>Degrees of Freedom</b>	86	
<b>Confidence Interval</b>	0.95	

As per Table 23 above, the Mean values in respect of Boys and Girls were 6.23 and 6.09 only. Similarly, Standard deviation was 3.826 in respect of boys and 4.422 in respect of girls. The Standard Error of Mean was obtained as 0.526 for boys and 0.747 for girls. The obtained t-value 0.158, was significant at 0.05 level.

So, the Hypothesis ( $H_{12}$ ) was rejected with conclusion that there was significant difference between boys and girls of urban areas in Commercial interest.

#### 4.5.5. VOCATIONAL INTEREST IN CONSTRUCTIVE FIELD

Table 24 : Percentage of Students falls under different interest groups in Constructive field

Sl. No.	Interest Groups	Range of Raw Scores	Boys		Girls	
			Percentage	Numbers	Percentage	Numbers
1	High Interest	18-20	0	1	1	3
2	Above Average Interest	14-17	2	10	6	33
3	Average Interest	7-13	31	152	37	202
4	Below Average Interest	4-5	21	102	17	93
5	Low Interest	0-3	46	227	39	213

From the Table 24, it was obtained that only 1 % girls have high interest in Constructive field. 2 % boys had above average interest against 6 % girls.

Similarly, 31 % boys had average interest against 37 % girls. The 21 % boys had below average interest against 17 % girls and 46 % boys showed low interest against 39 % girls.

One third students had shown average interest in Constructive field. On the other hand, majority of students had low interest in said field. Girls' interest was higher than the interest of boys.

Figure 13 : Percentage of Boys' interest in Constructive field

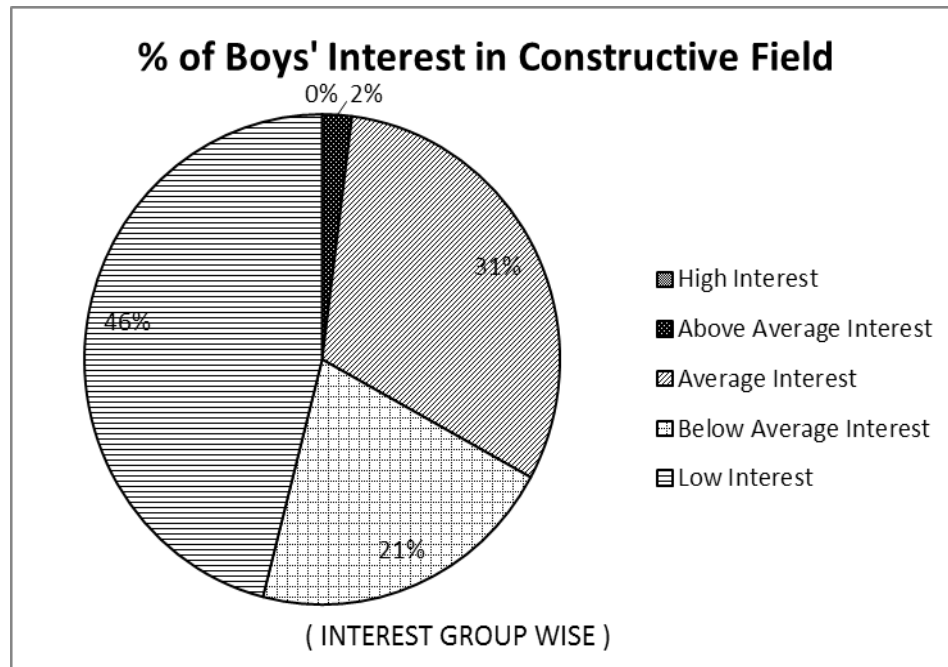


Figure 14 : Percentage of Girls' interest in Constructive Field

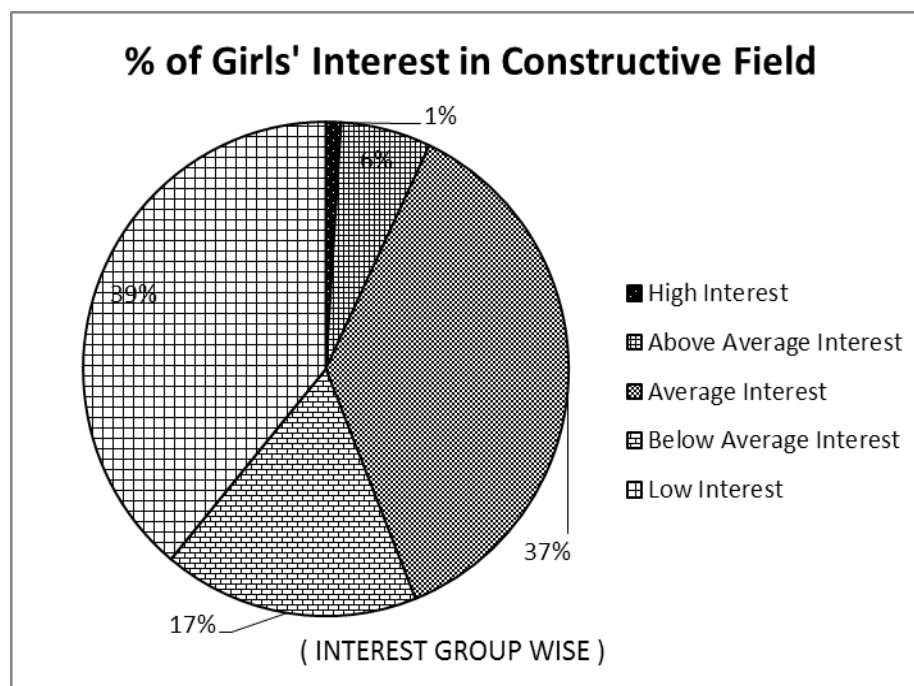
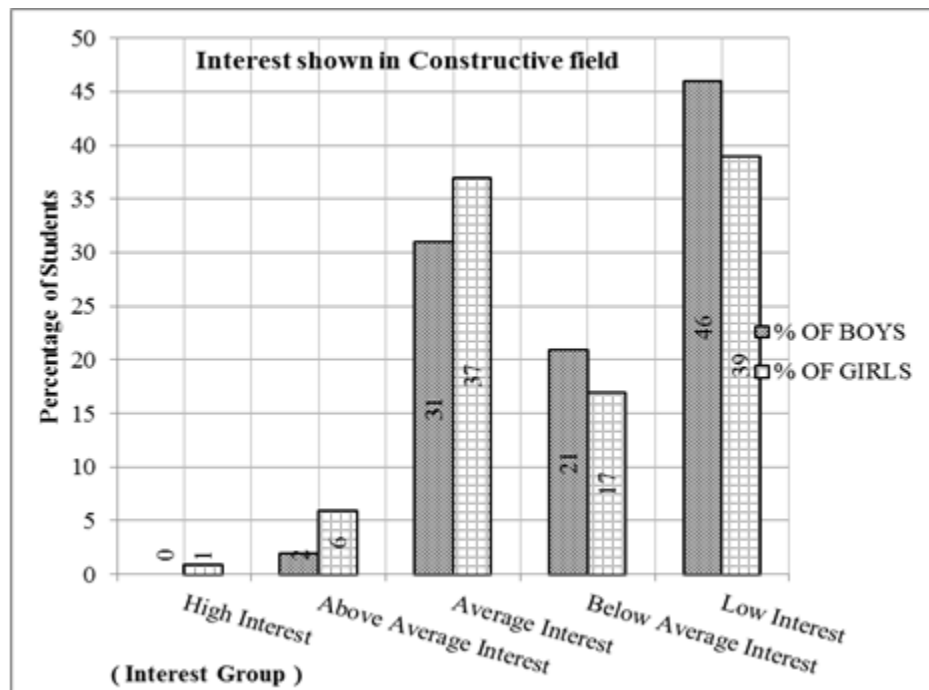


Figure 15 : Interest shown in Constructive field (Group-wise)



### Constructive Interest between Boys and Girls

Table 25 : Results of Statistical measures in case of boys and girls in Constructive field

Fields	Constructive (CO)	
	Boys	Girls
Total Number (Sample Size)	492	544
Mean	4.75	5.99
Standard Deviation	3.933	4.570
Standard Error of Mean	0.177	0.196
t-value	4.639	
Degrees of Freedom	1034	
Confidence Interval	0.95	

As per Table 25 above, the Mean values in respect of Boys and Girls were 4.75 and 5.99 only.

Similarly, Standard deviation was 3.933 in respect of boys and 4.570 in respect of girls. The Standard Error of Mean was obtained as 0.177 for boys and 0.196 for girls. The obtained t-value 4.639, was significant at 0.05 level.

Therefore, it was opined that there was significant difference between boys and girls in Constructive Interest. Accordingly, the Hypothesis ( $H_{13}$ ) was rejected.

### **Constructive Interest between Boys and Girls of Rural Areas**

Table 26 : Results of Statistical measures in case of rural boys and girls in Constructive field

<b>Fields</b>	<b>Constructive (CO)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	439	509
<b>Mean</b>	4.72	5.98
<b>Standard Deviation</b>	3.956	4.539
<b>Standard Error of Mean</b>	0.189	0.201
<b>t-value</b>	4.499	
<b>Degrees of Freedom</b>	946	
<b>Confidence Interval</b>	0.95	

The Table 26, showed Mean values as 4.72 and 5.98 in respect of Boys and Girls. Similarly, Standard deviation was 3.956 in respect of boys and 4.539 in respect of girls. The Standard Error of Mean was obtained as 0.189 for boys and 0.201 for girls. The obtained t-value 4.499, was significant at 0.05 level.

As such, Hypothesis ( $H_{14}$ ) was rejected with conclusion that there was significant difference between boys and girls of rural areas in Constructive interest.

### Constructive Interest between boys and Girls of Urban Areas

Table 27 : Results of Statistical measures in case of urban boys and girls in Constructive field

Fields	Constructive (CO)	
Gender	Boys	Girls
Total Number (Sample Size)	53	35
Mean	5.00	6.14
Standard Deviation	3.767	5.065
Standard Error of Mean	0.517	0.856
t-value	1.213	
Degrees of Freedom	86	
Confidence Interval	0.95	

As per Table 27, the Mean values in respect of Boys and Girls were 5.00 and 6.14 only. Similarly, Standard deviation was 3.767 in respect of boys and 5.065 in respect of girls. The Standard Error of Mean was obtained as 0.517 for boys and 0.856 for girls. The obtained t-value 1.213, was not significant at 0.05 level.

As such, the Hypothesis ( $H_{15}$ ) was accepted with conclusion that there was no significant difference between boys and girls of urban areas in Constructive interest.

#### 4.5.6. VOCATIONAL INTEREST IN ARTISTIC FIELD

Table 28 : Percentage of Students falls under different interest groups in Artistic field

Sl. No.	Interest Groups	Range of Raw Scores	Boys		Girls	
			Percentage	Numbers	Percentage	Numbers

1	High Interest	18-20	1	4	1	5
2	Above Average Interest	14-17	9	42	6	31
3	Average Interest	7-13	46	228	43	236
4	Below Average Interest	4-5	17	82	17	91
5	Low Interest	0-3	28	136	33	181

From the Table 28, it was seen that only 1 % boys and girls had high interest in Artistic field. Only 9 % boys and 6 % girls had above average interest. Similarly, 46 % boys had average interest against 43 % girls. The 17 % boys and girls had below average interest. 28 % boys showed low interest against 33 % girls.

Majority of students had shown average interest in Artistic field. Boys' interest was just higher than the interest of girls.

Figure 16 : Percentage of Boys' interest in Artistic field

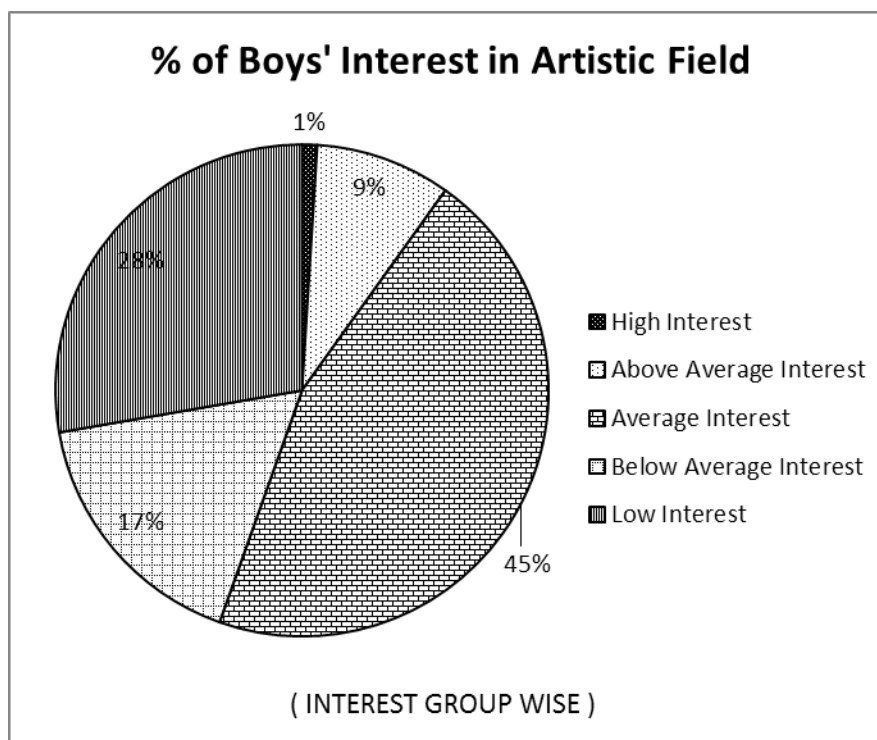




Figure 17 : Percentage of Girls' interest in Artistic Field

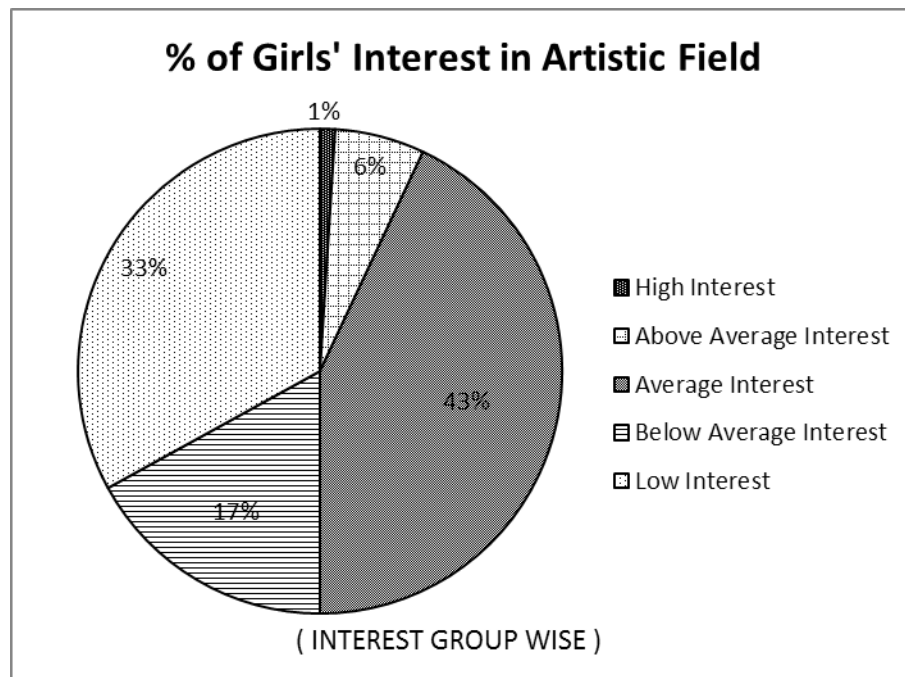
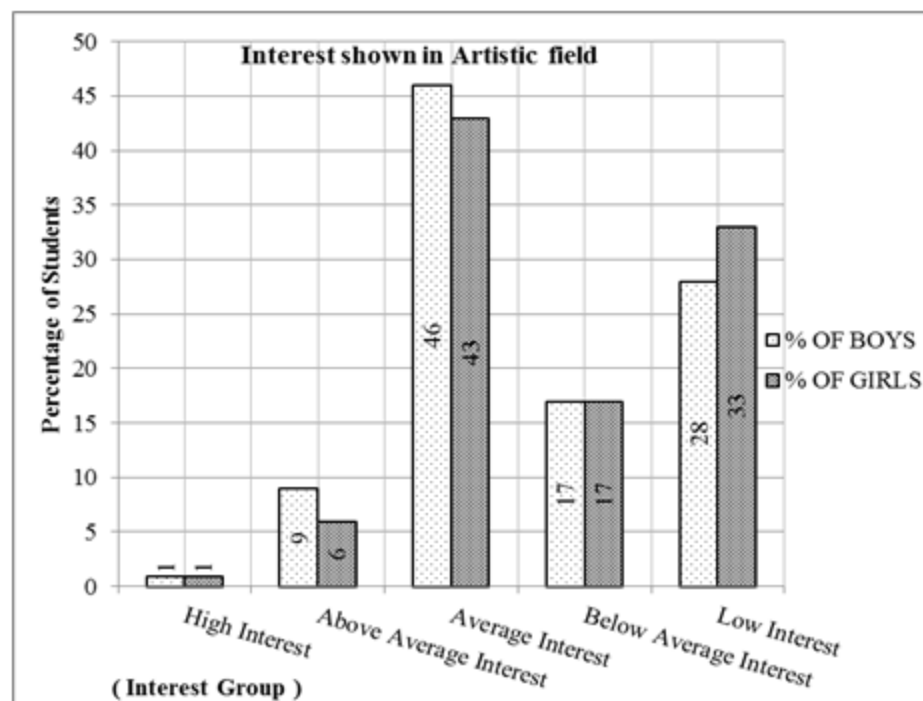


Figure 18 : Interest shown in Artistic field (Group-wise)



### Artistic Interest between Boys and Girls

Table 29 : Results of Statistical measures in case of boys and girls in Artistic field

Fields	Artistic (A)	
Gender	Boys	Girls
Total Number (Sample Size)	492	544
Mean	7.35	6.58
Standard Deviation	4.696	4.658
Standard Error of Mean	0.212	0.200
t-value	2.632	
Degrees of Freedom	1034	
Confidence Interval	0.95	

As per Table 29 above, the Mean values in respect of Boys and Girls were 7.35 and 6.58 only.

Similarly, Standard deviation was 4.696 in respect of boys and 4.658 in respect of girls. The Standard Error of Mean was obtained as 0.212 for boys and 0.200 for girls. The obtained t-value 2.632, was significant at 0.05 level.

From the above result, it was opined there was significant difference between boys and girls in Artistic Interest. Accordingly, the Hypothesis ( $H_{16}$ ) was rejected.

### Artistic Interest between Boys and Girls of Rural Areas

Table 30 : Results of Statistical measures in case of rural boys and girls in Artistic field

Fields	Artistic (A)	
Gender	Boys	Girls
Total Number (Sample Size)	439	509
Mean	7.21	6.36
Standard Deviation	4.765	4.546

<b>Standard Error of Mean</b>	0.227	0.202
<b>t-value</b>	2.811	
<b>Degrees of Freedom</b>	946	
<b>Confidence Interval</b>	0.95	

From the Table 30 above, the Mean values in respect of Boys and Girls were 7.21 and 6.36 only.

Similarly, Standard deviation was 4.765 in respect of boys and 4.546 in respect of girls. The Standard Error of Mean was obtained as 0.227 for boys and 0.202 for girls. The obtained t-value 2.811, was significant at 0.05 level.

As such, the Hypothesis ( $H_{17}$ ) was rejected with conclusion that there was significant difference between boys and girls of rural areas in Artistic interest.

#### **Artistic Interest between Boys and Girls of Urban Areas**

Table 31 : Results of Statistical measures in case of urban boys and girls in Artistic field

<b>Fields</b>	<b>Artistic (A)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	53	35
<b>Mean</b>	8.51	9.86
<b>Standard Deviation</b>	3.920	5.088
<b>Standard Error of Mean</b>	0.539	0.860
<b>t-value</b>	1.401	
<b>Degrees of Freedom</b>	86	
<b>Confidence Interval</b>	0.95	

As per Table 31, the Mean values in respect of Boys and Girls were 8.51 and 9.86 only. Similarly, Standard deviation was 3.920 in respect of boys and 5.088 in

respect of girls. The Standard Error of Mean was obtained as 0.539 for boys and 0.860 for girls. The obtained t-value 1.401, was not significant at 0.05 level.

As such, the Hypothesis ( $H_{18}$ ) was accepted with conclusion that there was no significant difference between boys and girls of urban areas in Artistic interest.

#### 4.5.7. VOCATIONAL INTEREST IN AGRICULTURE FIELD

Table 32 : Percentage of Students falls under different interest groups in Agriculture field

Sl. No.	Interest Groups	Range of Raw Scores	Boys		Girls	
			Percentage	Numbers	Percentage	Numbers
1	High Interest	18-20	0	1	0	1
2	Above Average Interest	14-17	2	8	1	8
3	Average Interest	7-13	32	159	34	184
4	Below Average Interest	4-5	20	98	20	111
5	Low Interest	0-3	46	226	44	240

From the Table 32, it was seen that nobody had high interest in Agriculture field. Only 2 % boys had above average interest against 1 % girls. Similarly, 32 % boys had average interest against 34 % girls. The 20 % boys and girls had below average interest. 46 % boys showed low interest in Agriculture against 44 % of girls.

About one third students had shown average interest in Agriculture. Majority of students had the low interest in this field.

Figure 19 : Percentage of Boys' interest in Agriculture field

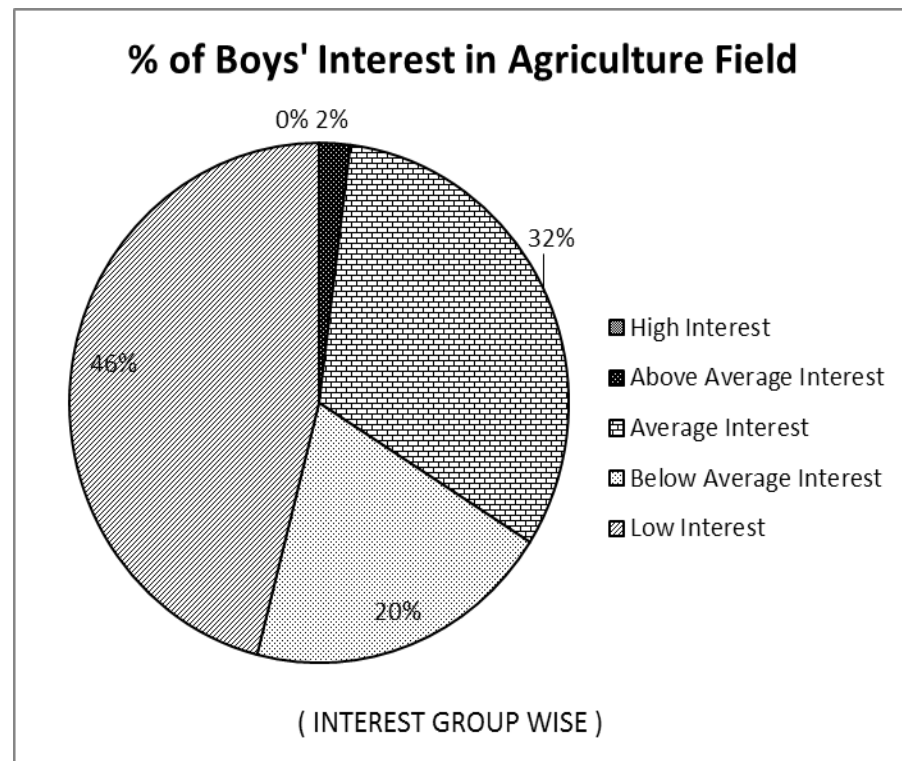


Figure 20 : Percentage of Girls' interest in Agriculture Field

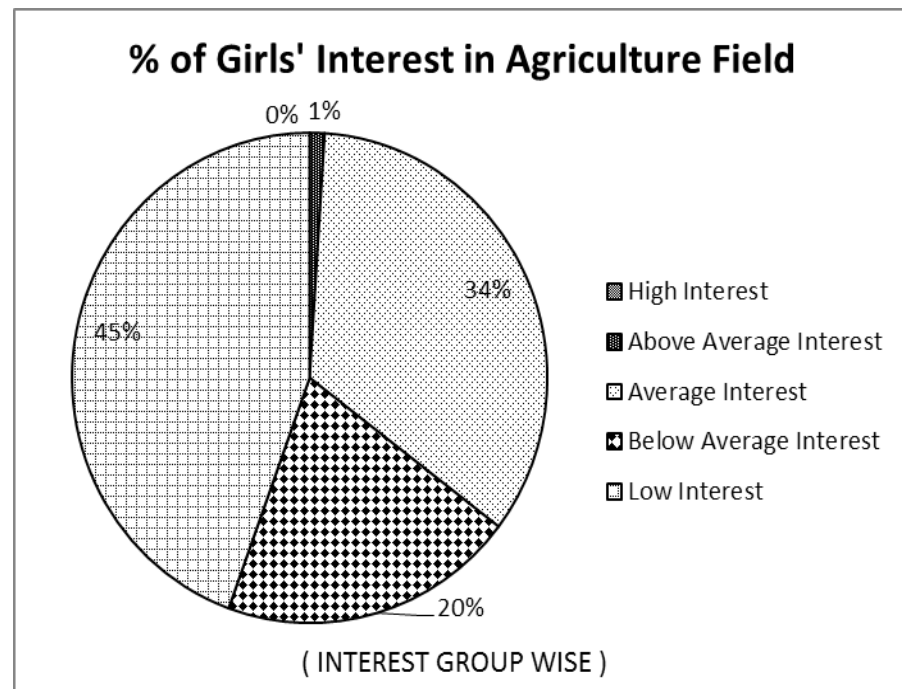
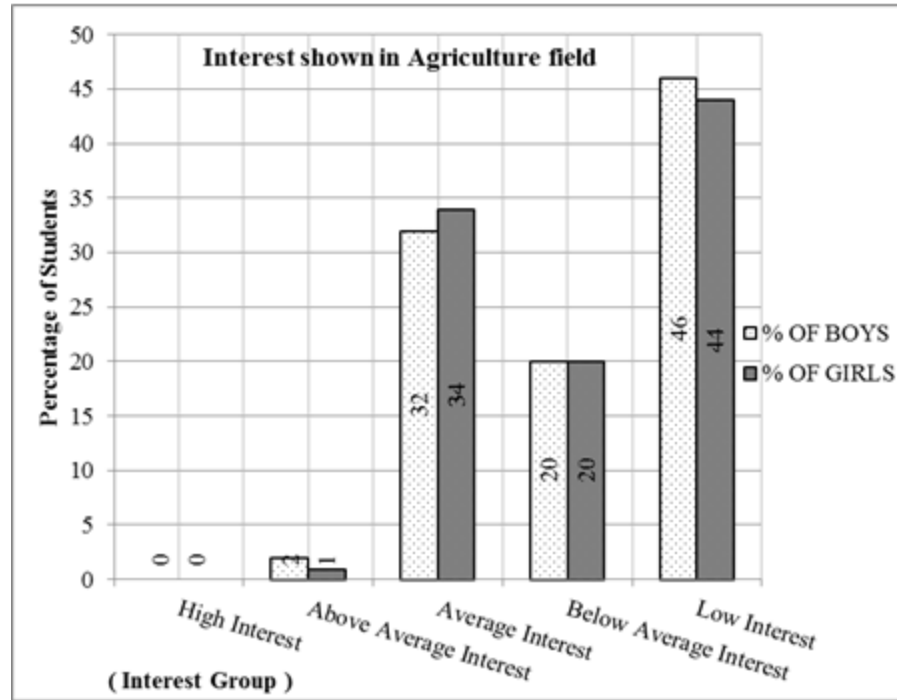


Figure 21 : Interest shown in Agriculture field (Group-wise)



### Agriculture Interest between Boys and Girls

Table 33 : Results of Statistical measures in case of boys and girls in Agriculture field

Fields	Agriculture (AG)	
Gender	Boys	Girls
Total Number (Sample Size)	492	544
Mean	4.94	4.96
Standard Deviation	3.887	3.886
Standard Error of Mean	0.175	0.167
t-value	0.108	
Degrees of Freedom	1034	
Confidence Interval	0.95	

As per Table 33, the Mean values in respect of Boys and Girls were 4.94 and 4.96 only. Similarly, Standard deviation was 3.887 in respect of boys and 3.886 in respect of girls. The Standard Error of Mean was obtained as 0.175 for boys and 0.167 for girls. The obtained t-value 0.108, was not significant at 0.05 level.

So it was opined that there was no significant difference between boys and girls in Agriculture Interest. Hence, the Hypothesis ( $H_{19}$ ) was accepted.

### **Agriculture Interest between Boys and Girls of Rural Areas**

Table 34 : Results of Statistical measures in case of rural boys and girls in Agriculture field

<b>Fields</b>	<b>Agriculture (AG)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	439	509
<b>Mean</b>	4.88	4.94
<b>Standard Deviation</b>	3.884	3.850
<b>Standard Error of Mean</b>	0.185	0.171
<b>t-value</b>	0.270	
<b>Degrees of Freedom</b>	946	
<b>Confidence Interval</b>	0.95	

The Table 34, showed Mean values as 4.88 and 4.94 in respect of Boys and Girls.

Similarly, Standard deviation was 3.884 in respect of boys and 3.850 in respect of girls. The Standard Error of Mean was obtained as 0.185 for boys and 0.171 for girls. The obtained t-value 0.270, was not significant at 0.05 level.

As such, the Hypothesis ( $H_{20}$ ) was accepted with conclusion that there was no significant difference between boys and girls of rural areas in Agriculture interest.

### **Agriculture Interest between Boys and Girls of Urban Areas**

Table 35 : Results of Statistical measures in case of urban boys and girls in Agriculture field

Fields	Agriculture (AG)	
Gender	Boys	Girls
Total Number (Sample Size)	53	35
Mean	5.45	5.26
Standard Deviation	3.910	4.421
Standard Error of Mean	0.537	0.747
t-value	0.218	
Degrees of Freedom	86	
Confidence Interval	0.95	

As per Table 35, the Mean values in respect of Boys and Girls were 5.45 and 5.26 only. Similarly, Standard deviation was 3.910 in respect of boys and 4.421 in respect of girls. The Standard Error of Mean was obtained as 0.537 for boys and 0.747 for girls. The obtained t-value 0.218, was not significant at 0.05 level.

As such, the Hypothesis ( $H_{21}$ ) was accepted with conclusion that there was no significant difference between boys and girls of urban areas in Agriculture interest.

#### 4.5.8. VOCATIONAL INTEREST IN PERSUASIVE FIELD

Table 36 : Percentage of Students falls under different interest groups in Persuasive field

Sl. No.	Interest Groups	Range of Raw Scores	Boys		Girls	
			Percentage	Numbers	Percentage	Numbers
1	High Interest	18-20	0	0	0	1
2	Above Average Interest	14-17	3	15	2	13



3	Average Interest	7-13	42	205	43	235
4	Below Average Interest	4-5	20	98	20	110
5	Low Interest	0-3	35	174	34	185

From the Table 36, it was clear that nobody had high interest in Persuasive field. Only 3 % boys had above average interest against 2 % girls.

Similarly, 42 % boys had average interest against 43 % girls. The 20 % boys and girls had below average interest. 35 % boys showed low interest against 34 % girls.

Less than 50 % of boys and girls had shown average interest in Persuasive field. On the other hand, approximate one third of the students had low interest in said field.

Figure 22 : Percentage of Boys' interest in Persuasive field

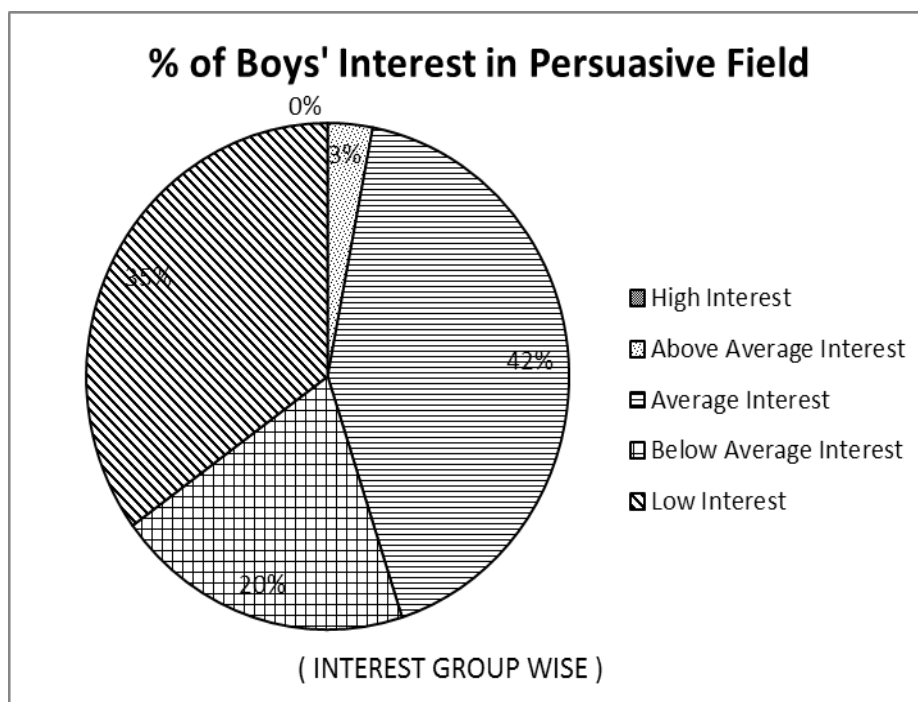


Figure 23 : Percentage of Girls' interest in Persuasive Field

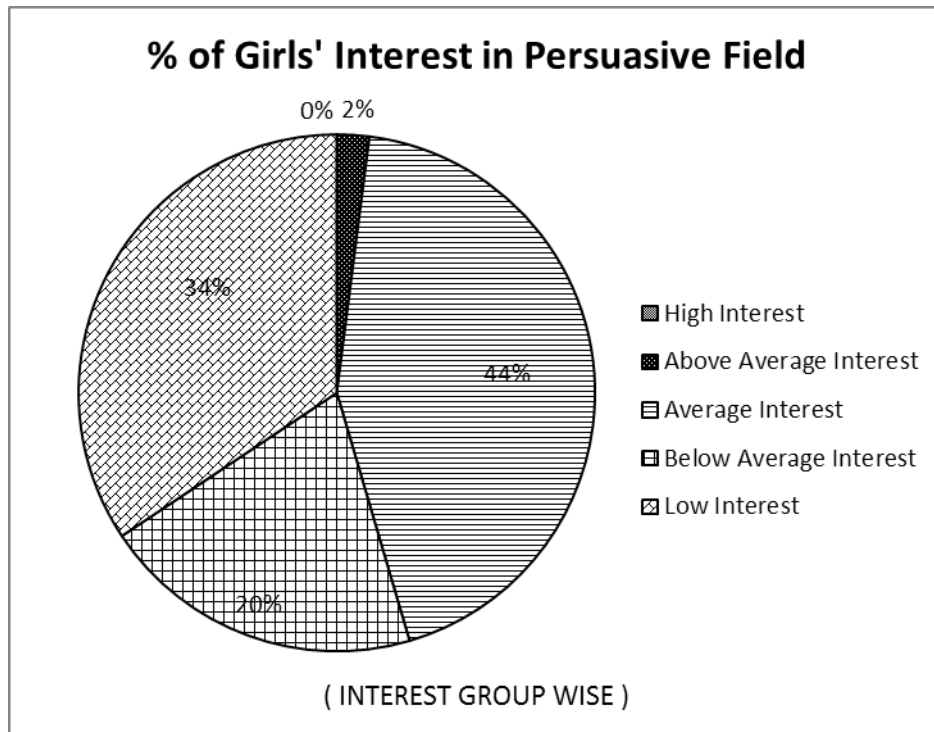
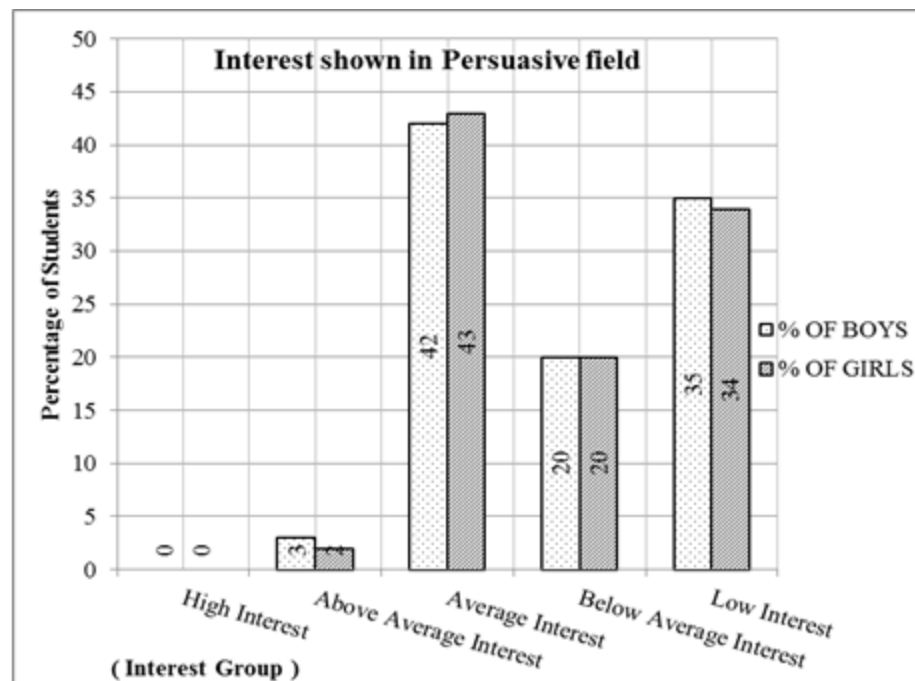


Figure 24 : Interest shown in Persuasive field (Group-wise)



### Persuasive Interest between Boys and Girls

Table 37 : Results of Statistical measures in case of boys and girls in Persuasive field

Fields	Persuasive (P)	
Gender	Boys	Girls
Total Number (Sample Size)	492	544
Mean	5.87	5.91
Standard Deviation	4.138	4.157
Standard Error of Mean	0.187	0.178
t-value	0.155	
Degrees of Freedom	1034	
Confidence Interval	0.95	

As per Table 37 above, the Mean values in respect of Boys and Girls were 5.87 and 5.91 only.

Similarly, Standard deviation was 4.138 in respect of boys and 4.157 in respect of girls. The Standard Error of Mean was obtained as 0.187 for boys and 0.178 for girls. The obtained t-value 0.155 was not significant at 0.05 level.

Based on the above calculation, it was concluded that there was no significant difference between boys and girls in Persuasive Interest. Accordingly, the Hypothesis ( $H_{22}$ ) was accepted.

### Persuasive Interest between Boys and Girls of Rural Areas

Table 38 : Results of Statistical measures in case of rural boys and girls in Persuasive field

Fields	Persuasive (P)	
Gender	Boys	Girls
Total Number (Sample Size)	439	509

<b>Mean</b>	5.75	5.85
<b>Standard Deviation</b>	4.174	4.103
<b>Standard Error of Mean</b>	0.199	0.182
<b>t-value</b>	0.364	
<b>Degrees of Freedom</b>	946	
<b>Confidence Interval</b>	0.95	

From the Table 38, the Mean values in respect of Boys and Girls were 5.75 and 5.85 only. Similarly, Standard deviation was 4.174 in respect of boys and 4.103 in respect of girls. The Standard Error of Mean was obtained as 0.199 for boys and 0.182 for girls. The obtained t-value 0.364, was not significant at 0.05 level.

As such, the Hypothesis ( $H_{23}$ ) was accepted with conclusion that there was no significant difference between boys and girls of rural areas in Persuasive interest.

### **Persuasive Interest between Boys and Girls of Urban Areas**

Table 39 : Results of Statistical measures in case of urban boys and girls in Persuasive field

<b>Fields</b>	<b>Persuasive (P)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	53	35
<b>Mean</b>	6.85	6.80
<b>Standard Deviation</b>	3.713	4.856
<b>Standard Error of Mean</b>	0.510	0.821
<b>t-value</b>	0.054	
<b>Degrees of Freedom</b>	86	
<b>Confidence Interval</b>	0.95	

As per Table 39 above, the Mean values in respect of Boys and Girls were 6.85 and 6.80 only.

Similarly, Standard deviation was 3.713 in respect of boys and 4.856 in respect of girls. The Standard Error of Mean was obtained as 0.510 for boys and 0.821 for girls. The obtained t-value 0.054, was not significant at 0.05 level.

As such, the Hypothesis ( $H_{24}$ ) was accepted with conclusion that there was no significant difference between boys and girls of urban areas in Persuasive interest.

#### 4.5.9. VOCATIONAL INTEREST IN SOCIAL FIELD

Table 40 : Percentage of Students falls under different interest groups in Social field

Sl. No.	Interest Groups	Range of Raw Scores	Boys		Girls	
			Percentage	Numbers	Percentage	Numbers
1	High Interest	18-20	0	0	0	0
2	Above Average Interest	14-17	3	14	3	17
3	Average Interest	7-13	37	181	43	234
4	Below Average Interest	4-5	21	102	16	89
5	Low Interest	0-3	40	195	38	204

As per Table 40, nobody had shown high interest in Social field. 3 % boys and girls had above average interest. Similarly, 37 % boys had average interest against 43 % girls. The 21 % boys had below average interest against 16 % girls and 40 % boys showed low interest against 38 % girls.

Less than 50 % students had shown average interest in Social field. Approximately, 40 % students had shown low interest in this field.

Figure 25 : Percentage of Boys' interest in Social field

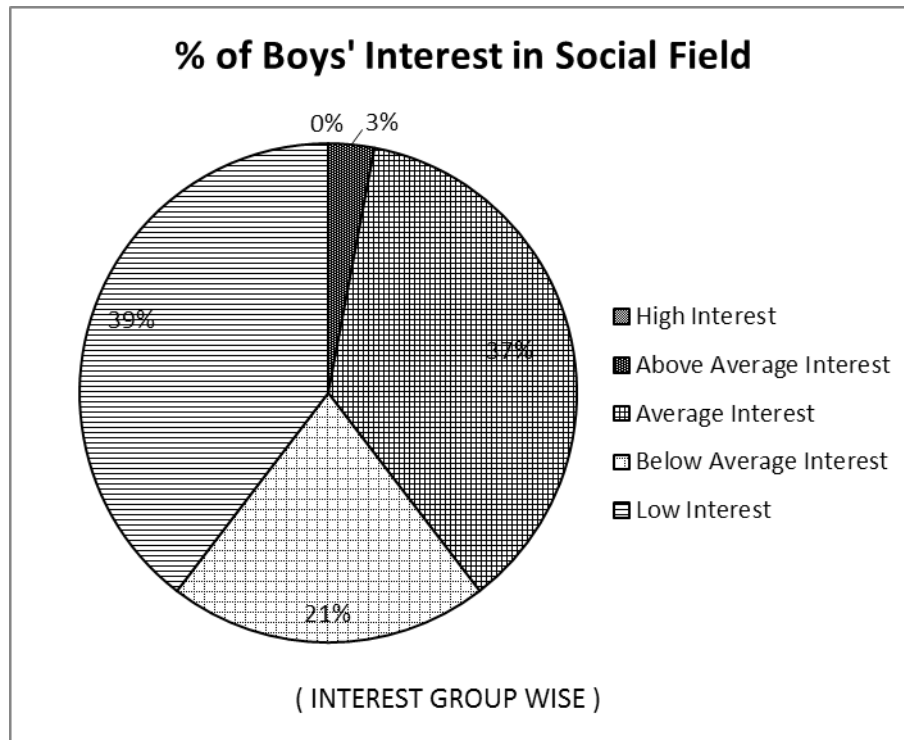


Figure 26 : Percentage of Girls' interest in Social Field

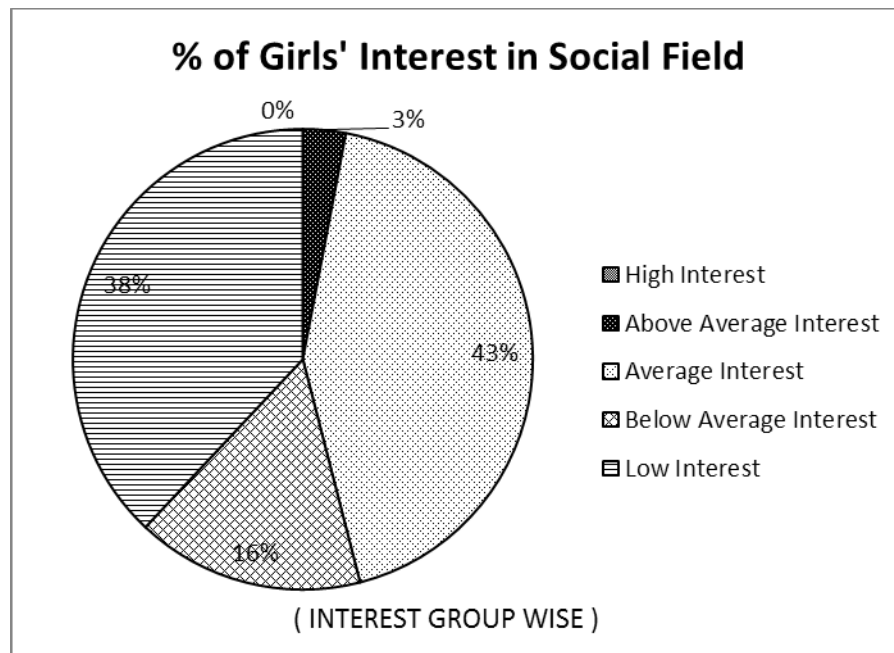
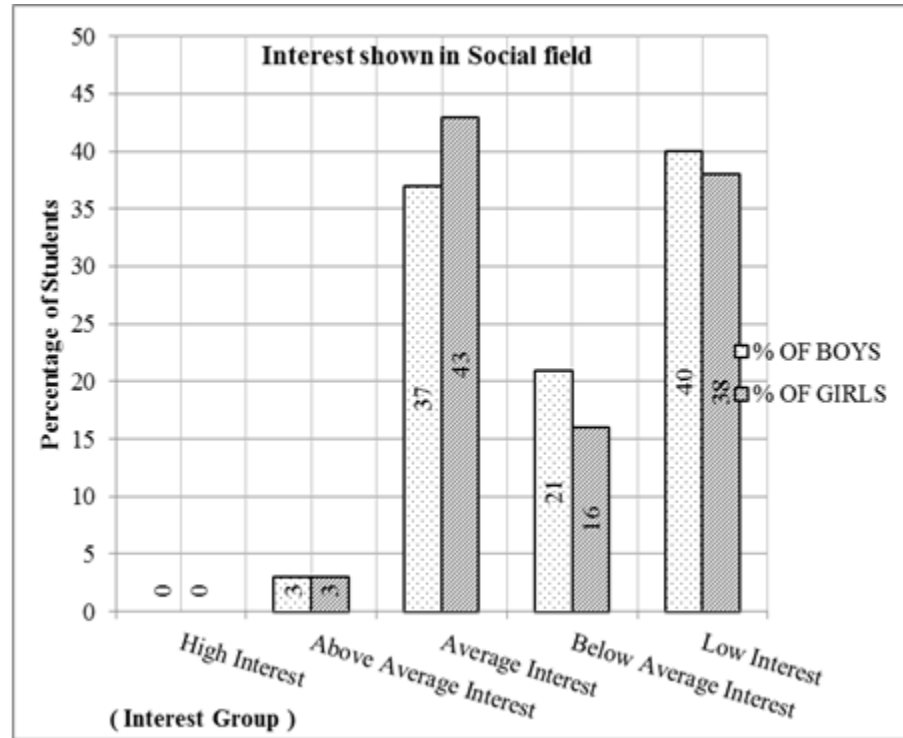


Figure 27 : Interest shown in Social field (Group-wise)



### Social Interest between Boys and Girls

Table 41 : Results of Statistical measures in case of boys and girls in Social field

Fields	Social (S)	
Gender	Boys	Girls
Total Number (Sample Size)	492	544
Mean	5.43	5.88
Standard Deviation	4.057	4.328
Standard Error of Mean	0.183	0.186
t-value	1.706	
Degrees of Freedom	1034	
Confidence Interval	0.95	

As per Table 41 above, the Mean values in respect of Boys and Girls were 5.43 and 5.88 only.

Similarly, Standard deviation was 4.057 in respect of boys and 4.328 in respect of girls. The Standard Error of Mean was obtained as 0.183 for boys and 0.186 for girls. The obtained t-value 1.706, was not significant at 0.05 level.

From the above result, it was opined that there was no significant difference between boys and girls in Social Interest. So, the Hypothesis ( $H_{25}$ ) was accepted.

### **Social Interest between Boys and Girls of Rural Areas**

Table 42 : Results of Statistical measures in case of rural boys and girls in Social field

<b>Fields</b>	<b>Social (S)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	439	509
<b>Mean</b>	5.31	5.86
<b>Standard Deviation</b>	4.096	4.316
<b>Standard Error of Mean</b>	0.195	0.191
<b>t-value</b>	2.003	
<b>Degrees of Freedom</b>	946	
<b>Confidence Interval</b>	0.95	

The Table 42, showed Mean values as 5.31 and 5.86 in respect of Boys and Girls.

Similarly, Standard deviation was 4.096 in respect of boys and 4.316 in respect of girls. The Standard Error of Mean was obtained as 0.195 for boys and 0.191 for girls. The obtained t-value 2.003, was significant at 0.05 level.

As such, the Hypothesis ( $H_{26}$ ) was rejected with conclusion that there was significant difference between boys and girls of rural areas in Social interest.

### **Social Interest between Boys and Girls of Urban Areas**



Table 43 : Results of Statistical measures in case of urban boys and girls in Social field

<b>Fields</b>	<b>Social (S)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size) (N)</b>	53	35
<b>Mean</b>	6.38	6.03
<b>Standard Deviation</b>	3.617	4.560
<b>Standard Error of Mean</b>	0.497	0.771
<b>t-value</b>	0.398	
<b>Degrees of Freedom</b>	86	
<b>Confidence Interval</b>	0.95	

As per Table 43, the Mean values in respect of Boys and Girls were 6.38 and 6.03 only. Similarly, Standard deviation was 3.617 in respect of boys and 4.560 in respect of girls. The Standard Error of Mean was obtained as 0.497 for boys and 0.771 for girls. The obtained t-value 0.398, was not significant at 0.05 level.

As such, the Hypothesis ( $H_{27}$ ) was accepted with conclusion that there was no significant difference between boys and girls of urban areas in Social interest.

#### 4.5.10. VOCATIONAL INTEREST IN HOUSEHELD FIELD

Table 44 : Percentage of Students falls under different interest groups in Household field

Sl. No.	Interest Groups	Range of Raw Scores	Boys		Girls	
			Percentage	Numbers	Percentage	Numbers
1	High Interest	18-20	0	1	0	1
2	Above Average Interest	14-17	6	28	6	34

3	Average Interest	7-13	44	218	43	235
4	Below Average Interest	4-5	14	69	17	95
5	Low Interest	0-3	36	176	33	179

From the Table 44, it was seen that nobody had high interest in Household field. Only 6 % boys and girls had above average interest. 44 % boys had average interest against 43 % of girls.

Similarly, 14 % boys had below average interest against 17 % of girls. 36 % boys showed low interest against 33 % of girls.

Majority of students had shown average interest in Household field. At the same time, approximately 35 % students had low interest in this field.

Figure 28 : Percentage of Boys' interest in Household field

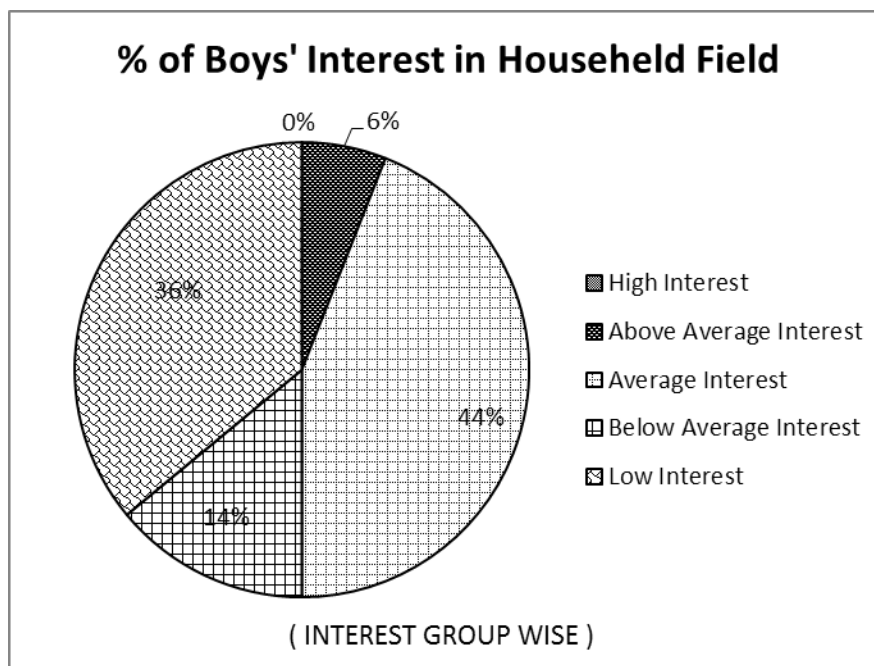


Figure 29 : Percentage of Girls' interest in Household Field

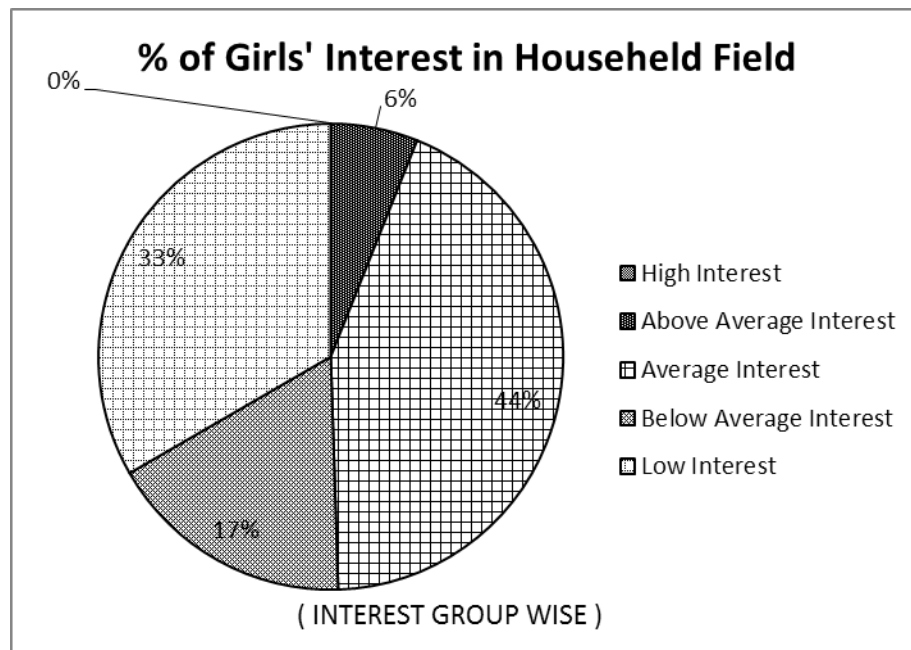
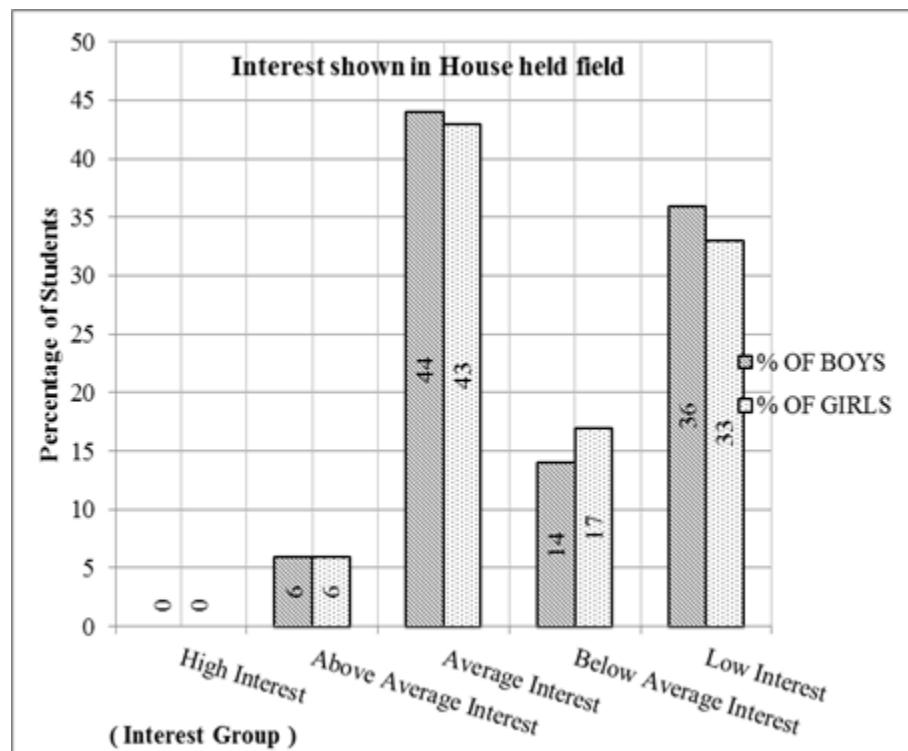


Figure 30 : Interest shown in Household field (Group-wise)



### Household Interest between Boys and Girls

Table 45 : Results of Statistical measures in case of boys and girls in Household field

Fields	Household (H)	
Gender	Boys	Girls
Total Number (Sample Size)	492	544
Mean	6.40	6.47
Standard Deviation	4.656	4.548
Standard Error of Mean	0.210	0.195
t-value	0.248	
Degrees of Freedom	1034	
Confidence Interval	0.95	

As per Table 45 above, the Mean values in respect of Boys and Girls were 6.40 and 6.47 only.

Similarly, Standard deviation was 4.656 in respect of boys and 4.548 in respect of girls. The Standard Error of Mean was obtained as 0.210 for boys and 0.195 for girls. The obtained t-value 0.248 was not significant at 0.05 level.

Therefore, it was opined that there was no significant difference between boys and girls in Household Interest. Accordingly, the Hypothesis ( $H_{28}$ ) was accepted.

### Household Interest between Boys and Girls of Rural Areas

Table 46 : Results of Statistical measures in case of rural boys and girls in Household field

Fields	Household (H)	
Gender	Boys	Girls
Total Number (Sample Size)	439	509

<b>Mean</b>	6.36	6.34
<b>Standard Deviation</b>	4.771	4.500
<b>Standard Error of Mean</b>	0.228	0.199
<b>t-value</b>	0.06	
<b>Degrees of Freedom</b>	946	
<b>Confidence Interval</b>	0.95	

From the Table 46, the Mean values in respect of Boys and Girls were 6.36 and 6.34 only. Similarly, Standard deviation was 4.771 in respect of boys and 4.500 in respect of girls. The Standard Error of Mean was obtained as 0.228 for boys and 0.199 for girls. The obtained t-value 0.06, was not significant at 0.05 level.

As such, the Hypothesis ( $H_{29}$ ) was accepted with conclusion that there was no significant difference between boys and girls of rural areas in Household interest.

#### **Household Interest between Boys and Girls of Urban Areas**

Table 47 : Results of Statistical measures in case of urban boys and girls in Household field

<b>Fields</b>	<b>Household (H)</b>	
<b>Gender</b>	<b>Boys</b>	<b>Girls</b>
<b>Total Number (Sample Size)</b>	53	35
<b>Mean</b>	6.74	8.34
<b>Standard Deviation</b>	3.574	4.893
<b>Standard Error of Mean</b>	0.491	0.827
<b>t-value</b>	1.780	
<b>Degrees of Freedom</b>	86	
<b>Confidence Interval</b>	0.95	

As per Table 47, the Mean values in respect of Boys and Girls were 6.74 and 8.34 only. Similarly, Standard deviation was 3.574 in respect of boys and 4.893 in

respect of girls. The Standard Error of Mean was obtained as 0.491 for boys and 0.827 for girls. The obtained t-value 1.780, was not significant at 0.05 level.

As such, the Hypothesis ( $H_{30}$ ) was accepted with conclusion that there was no significant difference between boys and girls of urban areas in Household interest.

#### **4.6. SUBJECTS RELATED TO VOCATIONS IN THE PRESENT SYLLABUS OF CLASS-IX**

To find out the subjects related with vocations in the present Syllabus of Class-IX, the syllabuses for the academic session 2014, 2015 and 2016 were reviewed. The syllabuses of the above three years were remained similar, except inclusion and exclusion of one or two subjects. It was seen that sufficient numbers of subjects were provided in the Class-IX syllabus and were related to different vocations.

In the recent syllabus of Class-IX, which was published by the Board of Secondary Education, Assam for the Academic Session 2016, following subjects were found related with vocations :

- 1) Computer Science
- 2) Wood Craft
- 3) Music
- 4) Dance
- 5) Fine Art
- 6) Agriculture
- 7) Textile Design and Clothing
- 8) Garment Designing
- 9) Cane and Bamboo Technology
- 10) Home Science
- 11) Co-Curricular Activities
- 12) Scouts and Guide

All the subjects were prescribed to provide as elective or optional subjects so that students can choose subjects along the compulsory subjects.

## **SUBJECTWISE COURSE CONTENTS**

### **1) COMPUTER SCIENCE (FOUNDATION OF INFORMATION TECHNOLOGY)**

The subject of Computer Science offers both theoretical knowledge and practical works relating the computer applications. Through the Computer Science subject, it was aimed to deliver the knowledge on basics of Information Technology, Information processing tools, applications of Information Technology as well societal impacts of Information Technology. Without possessing the basic theoretical knowledge on Information Technology as mentioned above, one does not know its practical and positive utility.

Under the chapter on basics of information technology, following concepts were provisioned :

- i) Convergence of Technologies - Computer, Communication and Content Technologies. Computer System : Characteristics of a computer, components of a computer system - CPU (CU & ALU), Memory, Storage Devices and Input-output Devices.
- ii) Memory - Primary (RAM & ROM) and Secondary Memory.
- iii) Units of Memory - Byte, Kilobyte, Megabyte, Gigabyte, Terabyte, Input-output Devices viz. Keyboard, Mouse, Printer, Joystick, Scanner, Microphone, OCR, MICR, Light Pen, Barcode Reader, Digital Camera, Web Camera Speaker, Plotter.
- iv) Storage Devices - Hard Disk, CD ROM, DVD, Blue Ray, Pen/Flash Drive, Memory Stick.

- v) Types of Software - System Software (Operating System), Application Software (General Purpose application software. Word Processing, Spreadsheet, Presentation, Database Management; Specific purpose application software-Accounting Management Reservation System, HR Management, Attendance System, Payroll System, Inventory Control System, Billing System) and Utility Software (Disk/Folder/Files Management, Virus Scanner/Cleaner, Encryption/Decryption Tools).
- vi) Communication Technology : Computer Networking - LAN, MAN, WAN, Internet, Interspace Wired Networking Technology; examples Co-axial Cable, Ethernet Cable, Optical Fibre Wireless Networking Technology, examples, Bluetooth, Infrared and Wi-Fi.
- vii) Content Technology : Data, Information and Multimedia (Picture/Image, Audio, Video, Animation).

Similarly, under the chapter Information processing tools, following concepts were provided :

- i) Operating System : Basic concepts of Operating System;
- ii) Operating System : Need for operating system, Functions of Operating System (Processor Management, Memory Management, File Management and Device Management;
- iii) Types of operating system : Interactive (GUI based), Real Time and Distributed;
- iv) Commonly used operating systems : UNIX, LINUX, Windows, Solaris, BOSS (Bharat Operating System Solutions); Mobile OS- Android, Symbian. Introduction to Windows : Basic components of GUI Window : Desktop, Frame, Title Bar, Menu Bar, Status Bar, Scroll Bars (Horizontal and Vertical), Basic operations of left and right buttons of mouse, Creating Shortcut, Basic Tools : Text Editor, Painting Tool, Calculator, using Mouse and moving icons on the screen, Task Bar, Different types of menu and menu selection, running and application, setting system date and time;



- viewing files, concept of folder and directories, creating/moving/renaming/deleting files and folders, opening and closing Windows, Minimise, Restore and Maximise forms of windows;
- v) Word Processing Tool : Introduction to a Word Processor. Creating and Saving a document. Editing and Formatting a Document: Text Style (B, I, U) Font Type, Size, changing colour, alignment of text. Formatting paragraphs with line and/or paragraph spacing. Adding headers and footers, numbering pages, using grammar and spell check utilities, using subscript and superscript, inserting symbols, Print Preview, Printing a document. Inserting Pictures, Page Setting, Bullets and Numbering, Borders and Shading, Format Painter/Paintbrush, Find and Replace;
  - vi) Inserting Tables : inserting, deleting rows and columns, merging cells, splitting cells;
  - vii) Presentation Tools : Introduction to Presentation Graphics, Understanding the concept of Slide Shows, Basic elements of a slide, Different types of Slide Layouts, Creating and saving a Presentation, Different views of a slider : Normal view, Slide Sorter view and Slide show, Editing and Formatting a slide : Adding Titles, Subtitles, Text, Background, Watermark; Headers and Footers, Numbering Slides; Printing Slides Hand-outs, Inserting pictures from files, Animating pictures and Text with Sound Effects, Timing Text box, Pictures and Slides, Rehearse Timings, Ungrouping and Grouping Objects (like text, picture);
  - viii) Spread-sheet Tool : Introduction to Spread-sheets, Concept of Worksheets and Workbooks, Creating and Saving a worksheet. Working with a spread-sheet : entering numbers, text, date/time, series using AutoFill, Editing and formatting a worksheet including changing colour, size, font, alignment of text, Inserting or deleting cells, rows and columns, Formula-Entering a formula in a cell, using operators (+,-,\*,/) in formulae, Relative referencing, absolute referencing and mixed referencing, Printing a worksheet. Use simple Statistical functions : SUM, AVERAGE, MAX, MIN, IF (without

compound statements); Inserting tables in worksheet, Embedding Charts of various types : Line, Pie, Scatter, Bar and Area in a worksheet;

- ix) Word Processing Tool : Using auto-format, mail merge, track changes, review comments, insertion of drawing tools, shapes and mathematical symbols.

Under the chapter applications of information technology, following concepts were provisioned :

- i) Multi Lingual Documentation :
  - Letter Writing - content, context, addressee
  - Report Writing - content, presentation, context
  - Greeting Card - design, context, recipient
  - Poster Making - design, context, target group;
- ii) Documentation : Mail-Merge Formal/Informal letter;
- iii) Presentation : School Presentation, Environment (Save Energy) and Pollution (Global Warming), Product Advertisement, Science and Social Science topic from the course, Trends in Wireless Computing;
- iv) Analysis Reporting : School/Class Result with student-wise and subject-wise marks, Cricket Score Record, Weather Forecasting Report.

Under the chapter on societal impacts of information technology, concepts and knowledge relating to the benefits of ICT in Education, Healthcare, Governance, Business, Design and Manufacturing, Plagiarism, Privacy, Security and Integrity of Information; Intellectual Property Rights, Careers in IT, were provisioned for the students.

Apart from the theoretical concepts and knowledge mentioned above, the Computer Science subject was provisioned for facilitating the following practical experiences to the students.

- i) To test some of the following basic system operations on file/folder (s) : Create, Rename, Copy / Cut / Past, Delete, Commands related to Text Editor / Drawing Tool;
- ii) Word Processing –A document is required to be created for testing the following areas : Editing and formatting text and paragraph, Page and paragraph setup, Inserting symbols and pictures;
- iii) Presentation – A presentation is required to be created with 4 slides for testing the following areas: Editing and formatting slides, Inserting pictures and sounds, Animating pictures and text with sound effects;
- iv) Spread-sheet – A spread-sheet is required to be created for testing the following areas : Formatting cells and data, Functions & formulae (Relative, absolute and Mixed reference), Charts.

From the above, it could be presumed that the subject, viz. Computer Science was offering overall basic concepts of computer, softwares and its application. Students are directly benefitting from the subject as it had relevance and importance in the present technology driven world. The subject was also so designed by which students will have hands on experiences for practical utility of the theoretical knowledge.

After reviewing the contents designed in the subject, it was clear that the course contents were quite necessary and relevant in emerging scenario for developing certain skills which had direct relations with specific vocations.

Vocations relating to the subject were–Business Analyst, Database Administrator, Games developer, Information System Manager, IT Consultant, Multimedia Programmer, System Analyst, Systems developer, Web designer & developer etc.

## 2) WOOD CRAFT

The subject, Wood-craft provided both theoretical knowledge and practical experiences to the learners. The contents in details were placed in a tabular form.

#### Theoretical Knowledge :

- i) Safety precaution, Workshop safety, hand tools safety;
- ii) Various types of fire extinguisher and their uses;
- iii) Important Industrial Development of our Country – to be taught in ‘trade in Wood Craft’;
- iv) Introduction of hand tools used in woodcraft care and maintenance and necessity of using proper size of tools, oil stones, Triangle file, Rasp cut file and flat file;
- v) Marking tools, Measuring tools, cutting tools, tri-square, level square and their uses;
- vi) Boring tools, planing tools, fixing or Striking tools and their uses;
- vii) Drilling tools and miscellaneous tools and their uses;
- viii) Carpentry process Marking, Measuring and sawing;
- ix) Planing, Chiseling, fitting and testing;
- x) Types of joints – cross half lap joints, Tlap joints, T-joints, butt joints etc.
- xi) Corner lap joints, Dove tail lap joints, Tenon mortise, simple and blind;
- xii) Double pin tenon mortise, miter and butt joints, tongue and groove joint, pocket screw joint.;

#### Practical Experience :

- i) Demonstration of workshop safety,
- ii) Practice of operation of fire extinguisher,
- iii) Industrial visit to wood working shop,
- iv) Demonstration of various type and size of hand tools and practice of sharpening hand tools and operation of various types of hand tools,
- v) Demonstration of marking, measuring and Cutting testing angle, surface of flatness and different thickness,
- vi) Demonstration of Boring, Striking and testing,

- vii) Demonstration of drilling and other miscellaneous tools and testing,
- viii) Revised practice of marking, measuring and sawing and testing,
- ix) Revised practice of planning types of chi-scaling and testing,
- x) Demonstration of cross half lap joints, Flap joints etc.

The subject of Wood-craft was well designed for the students which gives comprehensive knowledge of wood-crafting. At the same, knowledge on required safety precautions were also designed which was the inevitable part of wood-craft industry. Work experiences were prescribed for development of minimum skills to some extent.

The subject was purely relating with vocations viz carpentry, wood-craft designer.

### 3) MUSIC (Vocal and Instrumental)

The contents of the subject were furnished in tabular form, so that clear picture on skill building was obtained.

Theoretical Knowledge :

#### A. Vocal & Instrument :

- i) Notation of any two Bada Khayal (Bhatkhande & Poluskar system or Masitkhani Gat /Bilambit Gat);
- ii) One Dhrupad or Drut Gat other than Trital in the following Ragas – Yaman, Alhia Bilawal, Bhairav, Kafi & Bhupali;

#### B. Tabla/ Pakhawaj :

Notation of tukda, Tehai, Gat, Chakradar, Quida and Paran in Tintal, Jhaptal and Choutal.

#### C. Vocal & Instrument :

Sangeet, Nad, Shruti, Suddhaswara, Vikrit Swara, Saptak, Aroh, Abaroh, Palta, Thata, Raga, Sthayee, Antara, Tal, Bibhag, Matra, Tali, Khali, Laya, Vadi, Samvadi, Anuvadi, Vivadi, Pakad, Tana, Gat, Vilambit, Madhyalaya, Ekgun, Dugun, Jhala, Jamjama, Sut, Ghasit and ten thatas.

D. Tabla/ Pakhawaj :

Sangeet, Nad, Tal, Tali, Khali, Som, Bibhag, Matra, Laya, Mohra, Tehai (Damdar & Bedam) and Paran.

E. Vocal & Instrument

Notation writing of Tala in Borabar, Dugun and Chogun Laykari.

F. Tabla/Pakhawaj :

(a) Trital, (b) Ektal, (c) Choutal, (d) Jhaptal, (e) Rupak, (f) Dadra, (g) Kaharwa, (h) Dhamar in both Bhatkhande and Poluskar Tala notation system.

G. Vocal & Instrument :

- i) Description of Ragas–Yaman, Alhia Bilawal, Bhairav, Kafi and Bhupali;
- ii) Diagram and description of the instruments and identification of its parts.

H. Tabla/Pakhawaj :

- i) Drawing and description of different parts of the instrument;
- ii) Knowledge of Varnas used in the instrument with the description of the method of playing of each Varna;
- iii) Origin of the instrument.

I. Vocal & Instrument :

Life sketch of Sankar Dev, Tansen, Lakhiram Baruah, Omkarnath Thakur, Bishnu Rabha, Pt. Ravi Sankar.

J. Tabla/Pakhawaj :

Life sketch of Allarkha Khan, Ahmed Jan Thirkhowa, Samta Prasad, Keshab Changkakoty, Nana Saheb Panse, Ayodhya Prasad.

Practical Experiences :

(Vocal and String instruments : Sitar, Sarod, Violine, Flute)

- 1) Any composition of a Bada Khayal/Masitkhani Gat (Bilambit Gat) of any two of the following Ragas : Eman, Bhairav, Kafi, Bhupali and Alhia Bilawal. (In instruments with Masitkhani Gat/Rajakhani Gat is compulsory).
- 2) For Vocal one Dhrupad with Sthayee, Antara in Dugun Laya. For instrumental one Rajakhani Gat in Madhya laya in any Tal other than Trital with Tan, Toda in Ragas.
- 3) Knowledge of varieties Alankar and Paltas (Swargyana) is compulsory. For example – Complete the Aroh –Abaroh of the Alankar and Paltas with suddha and Vikrit.
- 4) Chhota Khayal/Rajakhani Gat with Sthayee, Antara, Alap, Tan Toda, Jhala in raga : Eman, Bhairav, Kafi, Bhupali and Alhia Bilawal.
- 5) Oral recital of the following Talas with Theka, Sam, Tali and Khali (with hath tali). Tals : Trital, Ektal, Choutal, Jhaptal, Rupak, Dadra and Kaharava.
- 6) Sing (i) and (ii) and any one of the following from iii) to vi), --  
(i) O-Mor-Aponar Desh, (ii) Jana-Gana Mana, (iii) Nazrul Giti, (iv) Loka Geet, (v) Jyoti Sangeet, (vi) Bishnu Rabha Sangeet.

The subject of Music was designed for developing the basic vocal & instrumental skills relating with music. Both theoretical knowledge and practical experiences were designed for students.

The subject was purely relating with a vocation, viz. Musician, Singer, Songwriter, Music Recorder & Producer, etc.

#### 4) DANCE

Theoretical Knowledge :

##### A) Common to all Indian Classical Dance Forms :

- i) Indian classical dances and their origin;
- ii) Nrilla, Nritya, Natya- knowledge of Tandav and dasya;
- iii) Origin and evolution of Dance;
- iv) Basic Postures of dances;
- v) Hasta or Hand gestures;
- vi) Bhava, Rasa, Tal, Laya.

##### B) Bharat Natyam :

- i) Definition of terms – Jati, Adava, Tirmanam, Solkaltu, Mandalam;
- ii) Description of Alarippu, Jatisharam sabdam and Barnam;
- iii) Devahastas and Desvatarahasta;
- iv) Talas used in Bharata natyam;
- v) Various Instruments, dresses, ornaments used in Bharat Natyam.

##### C) Sattriya Dance :

- i) Elementary knowledge of sattriya dance;
- ii) Description of Mati-Akhara, ora chata Jalak, Pak, Muruka, Tewai chitika;
- iii) Knowledge of lawanuchuri Nritya;
- iv) Knowledge of Nadubhangi Nritya;
- v) General knowledge of Jhumura Nach;
- vi) Knowledge of Chali Nach;
- vii) Notation of tal – chutatal, Ektal, Paretal;



- viii) General knowledge of hasta;
- ix) Contribution of Sri Sri Madhavdeva;

D) Odissi :

- i) Odissi: its History and development;
- ii) The present repertoire for stage performance;
- iii) Elementary knowledge of Talas and Ragas used in Odissi dance;
- iv) Elementary knowledge of Bhangis and Padabhedas;
- v) Elementary knowledge of Hastas used in Odissi dance as described in Abhinaya Darpana and Abhinaya Chandrika;
- vi) Instruments and Costumes.

E) Kathak :

- i) Origin and Development of Kathak Dance;
- ii) Concept of Tala, Sam, Tali, Khali Abartan, Matra, Pronami;
- iii) Introduction of Trital with Theka;
- iv) Knowledge of laya and its three kinds;
- v) General Knowledge of Anga, pratyanga and upanga;
- vi) Knowledge of Asamyukta Harta According to Abhinaya Darpan;
- vii) Notation of some tals of Trital and jhaptalas in kathak Dance.

F) Manipuri :

- i) Importance of Maharaja Bhagye handra in the development of Manipuri Dance;
- ii) Note on Laiharaoba Festival;
- iii) Festival Dance of Manipur;
- iv) Knowledge about few Manipuri Dance Exponents;
- v) Knowledge about Musical instruments, dress and ornaments used in Manipuri dance;

Practical Experiences :

A) Bharat Natyam :

- i) Repetition of all dance exercises and advus;
- ii) Knowledge of Adavu, Mandalem Jati, Tirmanam and Salkellu;
- iii) Concert items Alarippu, Jatiswaram, Sabdam and varnam.
- iv) Singing of above items
- v) Demonstration of Devahastas and Desavatarhastas

#### B) Sattriya Dance

- i) Practical Knowledge of Mati-Akhara
- ii) Knowledge of Lawanuchuri Nritya and Nadubhangi Nritya.
- iii) Practical knowledge of Jhumura Ramdani, few ghats of geetar Nach and few sachar of mela Nach.
- iv) Practical knowledge of chati Nach- i) Two parts of Ramdani, ii) Few ghats of geetar Nach (Ektal, Parital), iii) Few Sachars of Mela Nach.
- v) Demonstration of Sanjukta and Asanjukta Hasta (according to Sri Hasta Mukte wali)
- v) Notation of tal – Chuta, Thukuri, Parital, Jatital Ektal.

#### C) Odissi

- i) Practical knowledge of Tals and Ragas.
- ii) Practical knowledge of Pada-bhuda and Hasta.
- iii) Practical knowledge of bhangis.
- iv) Dance items : a) Batu, b) Pallavi on any raga c) Muksha

#### D) Kathak

- i) Barabar, Dugun and chougum Tatkar in Jhaptal and choutal.
- ii) One Amadjuri Param in Trital.
- iii) That, Pranami in Trital and Japtal.
- iv) Two simple tukra and two chakradar Tukra in trital and japtal.
- v) Advance Tatkar with pulta in trital.
- vi) Gat Nikas of Basuri, Ghunghal and Mukut.
- vii) One Kabit in Trital.

viii) Practice of Padhant in Jhaptal and Trital.

E) Manipuri

i) Nrityabandha (Pungloli Jagoi)- Dances on talas of rhythm pattern.

a) Tal Tanchap in Hasya or tandava.

b) Tal Menkup in hasya or Tandava.

c) Tal Chali in hasya or Tandava.

ii) Prabandha Nartan (Isheijagoi)- Dances on Songs

a) Krishan Nartan

b) Radha Nartan

iii) Festival Dance – Dance of priestess (Mai bi Jagoi) in Laiharaoba Festival.

After review, it was seen that the subject was designed to impart common theoretical concepts on Indian classical dances. Besides, theoretical knowledge and practical experiences were designed on Bharat Natyam, Sattriya Dance, Odissi, Kathak, Manipuri. By this way, the ‘dance subject’ aimed to develop knowledge and skills on some selected Indian classical dances.

The knowledge and skills developed through this subject was directly related with some vocations, viz. Choreographer, dancer, Lighting/ set designer, etc.

5) FINE ART

Theoretical Knowledge :

i) Definition of Fine Art and other related areas. An introduction to Fine Art, Areas of Fine Art.

ii) Indian Art – An introductory note,

iii) Cave painting, Art of Indus valley civilization, Cave painting of Ajanta, Cave art of Ellora, Temple art of Khajuraho, Temple art of Konark,

iv) Art of Assam : An introduction.

v) Temple sculpture of Assam :

- a) Da-Porbotia, b) Modan-Kamdeva, c) Kamakhya
- d) stone sculpture, wooden sculpture and relief on wood.
- vi) History of Western Art.

#### Practical Experiences :

- i) Free hand sketches from their own environment.
- ii) Still life study in Pencil Shading, Water colour, Pastel and collage medium of different geometrical objects, flowers, fruits, utensil, vegetables or any object of their own choice showing correct perspective and proportion.
- iii) Workshop on painting from their own environment or imagination using water-colour, pastel and collage medium within the class or campus in a joyful manner.
- iv) Some copy works of any Indian classical painting and Western masters of Renaissance, using water colour, acrylic or oil on paper, board/canvas etc.
- v) A need based design in ornamental, geometrical pattern specially for table cloth, chador, gamosa, or a book cover.
- vi) Simple composition in line, on rubber or soft wood and printing it with press ink or in black and white drawing.
- vii) Concept of Sculpture, in relief and three-dimensional form using armature with clay or plaster of paris.
- viii) Batik and tie-dye if colour is locally available
- ix) Concept of Stencil, Spray painting, Glass painting and Sand painting.
- x) Illustration of a creative story, greeting cards, calendar etc.
- xi) Poster making on some value-based message like Child labour, Education for all, disability, Environmental awareness (deforestation, plantation, pollution etc., AIDS Drug abuse, Population explosion etc.)

The subject intended to provide theoretical knowledge on Fine Art. Basic concepts on some other areas like Indian Art, Cave painting, Art of Indus valley civilization, Cave painting of Ajanta, Cave art of Ellora, Temple art of Khajuraho,

Temple art of Konark were also designed in this subject. Besides, the concepts on the Art of Assam and Temple sculpture of Assam viz. Da-Porbotia, Modan-Kamdeva, Kamakhya stone sculpture, wooden sculpture were also designed to facilitate through the subject along the History of Western Art.

Practical works, viz. drawings, paintings, ornamental designs, sculpture and other creative works were also designed in the subject to offer experiences to the students.

Vocations related with the subject were – Painter, Graphic designer, Artist, Visualizing Professional, Art Professional, Illustrator, Craft Artist, Animator, Lecturer, Art Museum Technician, Art Conservator, Art Director, etc.

## 6) AGRICULTURE

Theoretical Knowledge :

- A) Agriculture, crops and soils
  - i) Origin and development of Agriculture; different branches of Agricultural science
  - ii) Crops: Its classification- seasonal classification (rabi, kharif and summer) and economic classification.
  - iii) Soils: Concept and component of soil, types of soils, soil formation, properties of soil (Physical- texture, structure, bulk density and porosity; Chemical – soil pH.
- B) Weather and Crops
  - i) Weather and climate, different component of weather, temperature, relative humidity, wind sunshine, monsoon, western disturbances, flood and drought.
  - ii) Agro climatic Zone of Assam.
- C) Manure and fertilizers

- i) Essential plant nutrients, macro and micro nutrients and role of major nutrients, loss of plant nutrients the soil.
  - ii) Manures and fertilizers: characteristics of organic and inorganic fertilizers. Organic manure (FYM, compost, very-compost, green manure, bio-fertilizers) Inorganic fertilizers – Classifications, response of crop to different fertilizers, application of fertilizers.
- D) Weed and weed control
- Definition and importance of weed.
  - Types of weeds
  - Methods of control of weeds – cultural, mechanical, biological and chemical control.
- E) Crop insect pests -
- Concept of insect pest
  - Importance of insect pest in agriculture
  - Pest control and management
  - Integrated pest management (IMP)
  - Some important insect pest of Assam (5 nos. only including root knot nematode)
  - stem borer and Hispa of rice, white fly, fruit fly, sugar cane borer, root knot nematode, Aphid and Saw fly of rape and mustard.
- F) Plant Diseases -
- Definition and importance of plant diseases
  - Causes of plant diseases – biotic (fungal, bacterial and viral) and abiotic.
  - Various signs symptoms of plant diseases.
  - Seed health test (p)
  - Plant disease management – cultural, mechanical, host resistance, chemical control and biological control.

- Some important diseases of Assam (5 nos.) – Blast disease of rice, White rust and Alternaria blight rape seed and Mustard, Late blight of potato, Downy and powdery mildew of cucurbits, Fungal and bacterial wilts of solanaceous vegetables, nursery diseases.

G) Cropping System

- Concept of crop intensification and diversification.
- Multiple cropping, crop rotation, inter cropping, really cropping, mixed cropping, multi storied cropping etc.—their principle and advantages.

H) Horticultural Crops

- i) Definition, scope and branches of horticultural crops, propagation of horticultural crops (grafting, budding, layering, cuttings, etc.)
- ii) Nutritive value of fruits and vegetables,
- iii) Vegetables -
  - Per capita nutritional requirement
  - Seed bed preparation and nursery raising
  - Cultivation, harvesting and seed production of vegetables.
  - Important varieties and hybrids of vegetables,
- iv) Fruits -
  - Nursery raising, cultivation, harvesting of fruits.
  - Important varieties and hybrids fruits.

Practical Experiences linking with theories :

A) Cultivation of some horticultural crops of Assam -

- Cabbage, Cauliflower, Tomato, Brinjal
- Banana, Coconut, Pineapple and Citrus

B) Cultivation of some important field crops of Assam

- Rice, Rapeseed and mustard, Black gram/green gram, potato.

C) Fish Farming

- Preparation of pond for fish farming.
- Different fish species for commercial fishery
- Management of pond
- Integrated fish farming – Fish cum paddy cultivation, Fish cum horticulture, Fish cum pig farming, Fish cum duck farming, etc.

The subject of agriculture has the great practical utility among 70 % of India's population. In Assam also, it has similar impact. The main objectives of the course were to impart primary knowledge of different aspects of scientific agriculture, agricultural sciences for pursuing higher education as well as to acquaint with improved tools and techniques of modern agricultural practices. The course also aimed to develop knowledge based practical skills in crop and animal husbandry including fishery. Besides, the subject intended to stimulate and create interest in agriculture for agro based employment and entrepreneurship in public and private sector. Apart from the theories, practical experiences, like identification of crops, seeds, implements and fertilizers, were designed so that students could be equipped with productive skills to take up various agrovocations for gainful self-employment.

Jobs related with – Agricultural consultant, Farm Manager, Fish Farm manager, Plant breeder, Rural practice surveyor, soil analyst, etc.

7) TEXTILE DESIGN AND CLOTHING

Theoretical Knowledge :

A) Composition With Basic Shape In Different Colours

- i) Polka dots, Floral prints, Other motifs, Nursery prints- their development, Arrangement and Composition.
- ii) Placement of motifs : Vertical, Horizontal, Diagonal, All over, Half Drop and Mirror.



#### B) Weaving

- i) Looms, Types of Loom (Hand-Loom and Power loom.)
- ii) Basic steps of weaving, Motions in Loom.
- iii) Basic Weaves and its properties : Plain Weave, Derivatives of plain, Twill Weave, Satin Weave, Steen Weave, Basket Weave and Diamond Weave.

#### C) Dyeing

- i) Definition and Different types of Dyes (Direct, reactive, Vat, Acid and Basic Dyes.)
- ii) Different method of Dyeing (Yarn & fabric dyeing).
- iii) Conventional method of Dyeing of Cotton yarn and fabric with
  - (a) Direct dye, (b) Reactive dye, (c) Vat dye

#### D) Printing

- i) Definition
- ii) Basic idea on Different method of printing.
  - (a) Hand block printing, (b) Screen Printing

#### Practical Experiences :

- i) Drawing of motif, different floral design in drawing paper, different shapes and their placement process.
- ii) Introduction to common parts of loom, General idea of different types of fabric.
- iii) Dyeing of cotton yarn by using direct and reactive dyes by conventional method using different colours in different shades.

Both theoretical and practical knowledge were designed in the subject. Theoretical knowledge like, composition with Basic Shape in different colours, Weaving, Dyeing, Printing, etc. were provided through this subject.

Practical experiences like, drawing of motif, different floral design in drawing paper, different shapes and their placement process, introduction to common parts of loom, General idea of different types of fabric, dyeing of cotton yarn by using

direct and reactive dyes by conventional method using different colours in different shades.

Vocations relating with the subject were – Textile designer, Fashion designer, Merchandising, Pattern maker, etc.

## 8) GARMENT DESIGNING

Theoretical Knowledge :

- i) Prospect and demand of Garment Making
- ii) Tools & Equipment
- iii) Pattern. (drafting and Pattern Making)
- iv) Care and maintenance of cutting Tools & Equipment
- v) Tools & Equipment for hand stitch
- vi) Tools & Equipment for ironing
- vii) Sewing Machine
- viii) Problems in sewing and Remedies
- ix) Precautions to be taken while working with the sewing machine
- x) System of measurement with Measuring Tape
- xi) Calculation :
  - a) Width of cloth
  - b) Body measurement as per age
- xii) Classification of stitch for different fabrics
  - a) Light weight fabrics
  - b) Medium weight fabrics
  - c) Heavy weight fabrics

Practical Experiences :

- i) Method of cutting & sewing.
- ii) Formation of stitch, like, Apron, Yoke, Frock, Basic Bodice, Basic Shirt, Bias Bodice, Shorts, Shirt, Pant, etc.

The subject Garment Designing offered both theoretical knowledge and practical experiences to the learners. The Prospect and demand of Garment Making, Tools & Equipment, Drafting and Pattern Making, Care and maintenance of cutting Tools & Equipment, Tools & Equipment for hand stitch, Tools & Equipment for ironing, Sewing Machine, Problems in sewing and Remedies, Precautions to be taken while working with the sewing machine , System of measurement with Measuring Tape, Calculation of width of cloth & body measurement as per age, Classification of stitch for different fabrics viz. light weight, medium weight, heavy weight; were the theoretical knowledge designed in the subject.

Practical experience like, Method of cutting & sewing, Formation of stitch, were included in the subject.

Vocations relating to the subject were --- Designer, merchant, pattern maker, etc.

## 9) CANE AND BAMBOO TECHNOLOGY

Theoretical Knowledge :

A)

- i) History of bamboo utilization, Definition of Bamboo and its application at various field.
- ii) Common bamboo and cane species available in North East India and its local & scientific name.

B)

- i) Vegetative propagation, Commercial Plantation, Harvesting of bamboo and methods of storage and preservation techniques.
- ii) Treatment and preservation of cane and bamboo,
  - (a) Reasons for the treatment of bamboo and cane are identified in terms of technical properties of varmint and vegetable pests. Susceptibility of green Bamboo Vs dry bamboo to particular pests/defects/ fungus.

- (b) Different treatment and preservation procedure for green and dry bamboo.
- (c) Chemical Treatment process with Borax, Boric Acid and Creosote oil. Natural Treatment Process and Smoking Treatment Processes.
- iii) Innovative Bamboo Housing and Structural related Jobs.

C)

- i) Basic measurement, free hand drawing as a communication tools.
- ii) Commonly used drawing media and their characteristics and applications.
  - (a) Selection of measuring tools as per job requirements;
  - (b) Measurement to an appropriate degree of accuracy. Basically, there are three parameters like length, Weight and Time. Units of length- m, mm and inches; Weight-kg, g; Time - hours, minute, second;
  - (c) Perform basic measurement with the following tools, -  
Measuring scale (Steel ruler), Measuring Tape (steel), Tailors Tape. Folding-scale, Right angle scale, Water Level, Set Square, Protector, Steel Ruler, Compus and Template of different geometrical forms.

D)

- i) Use and maintain different hand operated tools and equipments like Dao, Splitting Knife, Scraping Knife, Hand Drill, Saw, Hammer, Wood Planner, Pruning Scissor, Half Round File, Round File, Combination Stone, Out Side and Inside Caliper, Half Round & Flat Chisel, Dropping Knife and Blow Lamp etc.
- ii) Perform safe operation and practice of hand operated tools and equipment. Description and practice on Bamboo Manual Splitter, Hand operated slivering machine, Hand operated square stick making machine, Width Sizing, Thickness Sizing machine.
- iii) Weave mat as semi-finished part for further processing.

E)

i) Describe safe practices on bamboo Processing Workplace:

- Safety Clothing and safety equipment as used in bamboo processing workplace,
- The safe use of tools and equipments in bamboo processing workplace,
- Procedures in relation to fires,
- The procedure to report accidents.

Practical Experiences :

i) Identify different types of cane and bamboo and its application.

- a) Selection of cane and bamboo species used for handicraft and weaving purposes,
- b) Selection of bamboo species used for building construction jobs,
- c) Selection of cane and bamboo species used for furniture making,
- d) Selection of Bamboo for industrial products,

ii) Draw different handicraft products which are available in local market such as flower vase, cane and bamboo basketry, wall hanging, pen stand, tray.

iii) Making some handicraft products, such as weaving mat, flower vase, cane and bamboo basketry, wall hanging, pen stand, tray.

iv) Working knowledge of First Aids.

The subject provided both theoretical and practical experiences relating to the vocation like bamboo & cane producer, supplier, crafts maker, carpenter, etc.

## 10) HOME SCIENCE

*Theoretical Knowledge :*

A) Introduction to Home Science Education :

- Meaning and importance of Home Science.
- History of Home Science Education in India.
- Objectives of Home Science Education.
- Different components of Home Science.

#### B) Food and Nutrition :

- Meaning and importance of Food and Nutrition. Study of classification of food– Body building, Energy, giving, protective and regulatory food.
- Introduction to different Nutrients Carbohydrate Protein, Fats, Vitamin, Minerals and Water.
- Introduction to common food stuffs : cereals, pulses, green leafy vegetables, fruits, meat, fish and eggs, milk and milk products, spices and condiments etc.
- Introduction to cooking : Objectives of cooking, different methods of cooking food - boiling, frying, deep frying, shallow frying, roasting, baking, steaming, pressure cooking, microwave cooking, solar cooking etc.

#### C) Child Development and Family studies :

- Introduction to child Development - Concept of growth and development, principles of growth and development.
- Different phases of life - Prenatal, infancy, boy hood, pre-school age, school age, adolescence adulthood, old age.
- Various aspects of growth and Development Physical, Motor, Intellectual, Emotional, Social and Moral and Language Development.

#### D) Clothing and Textile :

- Clothing and its importance.

- Introduction to Textile fibre and their Classification - Vegetable, Animal, and min fibres, Man-made fibres.
- Study of Natural and man-made fibre and its properties.
- Common methods of fibre identification (Visual, Microscopic and burning method.
- Stain Removal (Principles and method of removing stains, equipments and reagents required for stain removal).

E) Family Resource Management :

- Introduction to Home management Meaning and importance.
- Resource- Human and Non-Human.
- Study of common household equipment and their uses. Refrigerator, Washing Machine, Mixer Grinder, Pressure Cooker, Vacuum Cleaner, on microwave etc.
- Work simplification- its meaning and different ways of work simplification.
- Household pests and their control- (mosquitoes, cockroaches, bedbugs, rats, and flies.

*Practical Experiences :*

- i) Preparation of Khichari, Chana Dal, Veg. Curry, Pokoras - from vegetables/eatable green leaves or flowers, Fruit juice,
- ii) Preparation of project report on topics related to course.
- iii) Common methods of fibre identification - visual microscopic, burning;  
or,
- iv) Removal of common stains - grease, curry, blood, perspiration, mud, lipsticks, tea, ink etc. or,
- v) Cleaning and polishing of - Brass, silverware, copper, steel aluminium etc.
- vi) Practical note book.

The subject was designed to provide both theoretical and practical knowledge/ experiences to the learners. Vocations related with this course were food preserver, cook man, house keeper, nutritional advisor, etc.

## 11) CO-CURRICULAR ACTIVITIES

### *List of Co-curricular Activities :*

#### D) Athletics : (Suggested games and sports)

##### a) Outdoor games –

Football, Cricket, Hockey, Badminton, Volleyball, Hadudu-du (Hau Khel or kabadi), Tennis, Basketball, Kho-Kho, Tiger's Catching the tail, Tunnel Ball Pass, Arm-locked Relay, Joy Wheel, Hit the man Rounders, Golla Chhut khela, Merry-Go Round, Cock Fight, Dog and the Bone, Whip Tag, Horse and the Rider, Musical Chair, Leap Frog, Hare Jump, 1-say-'Squat' Games, Discipline Games (imitation of animals' voice), In the Tank and outside the tank, Houd and Hare, Antelope Hunting, Marbles, Daria khel, Tug- of- war etc.

##### b) In-door Games -

Carrom, Chess, Table Tennis, Ludo, Badminton, Chinese Chequers, Billiards, Word Building and Word Making, Crossword Games, Jigsaw Puzzles. Tiger-and Cow game, Card Games, Golak , Snake and Ladder etc.

##### c) Sports -

Race : running obstacle race : relay race : sack race, three legged race, egg-on-spoon race : potato-on-spoon race : hurdle race : observation or memory testing race, thread and-needle race: cross-country race : One legged race, back-to-back race, etc.

Jump : (Long jump; high jump; pole vault; hop-step-and-jump, etc.)



Swimming and Diving, Riding, Climbing hills and mountains., Rowing, Cycling, Discus throw, Javelin throw, Football Cricket, Hammer throw, Skipping, Swimming, Hiking, Rope Climbing, Stilt walking, Hooping.

d) Drills and physical exercise -

Music drill, Pole drill, wand drill, mass drill, Turnings, Marches and Squad drill. Freehand Exercises - Yago Asans. Gymnastics - Indian club, Lathi, Dumbbell, Barbell and weight lifting, chest expanding exercises, vaulting box, Beam, Malkhab, Pyramids, Parallel bar, Lizio exercises and Putting the shot.

II) Artistic and Cultural Activities :

Listening to music, radio programmes and watching theatrical performances, film shows and other cultural events meant for children. Organising cultural activities (folk dances, songs, group singing). Dramatics, Play Reading, Debates, Extempore speeches, Recitation, Moral Instruction, Excursion, Travelling, Cycling tours, walking tours, picnics, participating in holiday home etc. Hobbies: photography, stamp collecting, gardening, insect collecting, rock specimen collecting, plants and indigenous medical herbs etc., Reading.

III) Scientific Activities :

- i) Scientific experiments
- ii) The use of the telescope and other scientific instruments.

IV) Literary Activities :

Writing stories, poems, plays, articles etc. in the mother tongue and other languages learnt. Translating, adapting stories, poems, plays, articles etc. from other language into the mother tongue and vice versa. Editing journals etc., telling stories, literary discussions.

#### V) Social Service :

Tending the sick, helping the old invalid, helping the poor and needy, helping people in danger, organising relief work. Building roads, cleaning and sweeping roads and public places, cleaning tanks, digging wells etc., acting as volunteers in public functions, teaching the illiterate, imparting education on health and hygiene, imparting information on traffic rules and civic duties. Forming organisation and arranging functions to promote amity and goodwill among people of different linguistic and cultural activities, other public welfare activities.

#### *Objectives :*

- i) The pupil develops health and physical well-being.
- ii) The pupil, undertakes spare-time activities.
- iii) The pupil develops imaginative power and creative abilities.
- iv) The pupil develops interests and skill in extra-curricular activities.
- v) Develops personal and social qualities.

Vocations were, viz. Players of different games, Artist, poet, writer, editor, volunteers, etc.

#### 12) SCOUTS & GUIDES

The Scouts & Guides were facilitated as co-curricular activities. Its main objectives are as below :

The pupil -

- acquires purity in thought, word and deed.
- develops trustworthiness and develops sense of loyalty.
- develops the qualities like help and co-operation, courtesy and kindness, obedience, readiness.
- develops the desire to be friendly to all and treat fellow cadets as brothers and sisters.

- develops friendly attitude to birds and animals and love for nature.
- develops discipline and helps to protect public property.
- becomes courageous and realises his/her duty to God and country.
- develops work culture and commitment to the society.
- develops human values, simple living and high thinking.

Vocations related to this course were very limited, one can able to perform as Instructor after acquiring this courses or prepare himself for defense services.

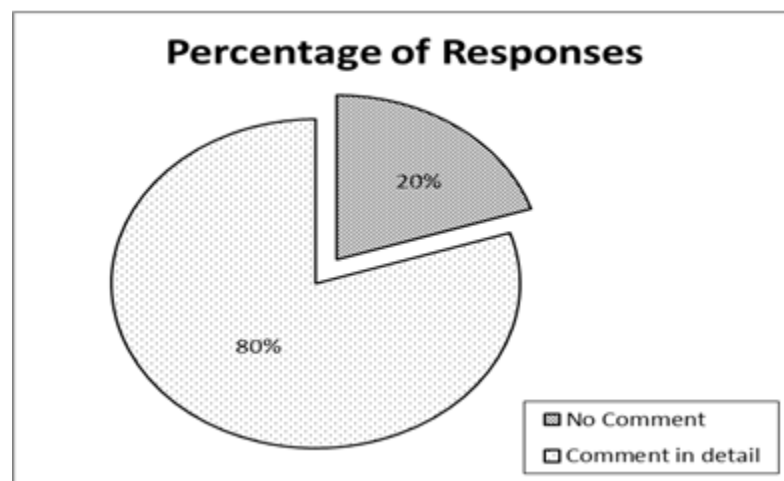
#### **4.7. PROBLEMS FACED BY SCHOOLS IN IMPLEMENTING VOCATIONAL EDUCATION**

##### **1) Infrastructural Problems faced by your School in implementing Vocational Education :**

Table 48 : Quantum of responses towards Infrastructural Problems

Response type	Number of Heads of Institutions	Percentage
No Comment	15	20
Comment in detail	61	80

Figure 31 : Percentage of responses towards Infrastructural Problems



From the responses obtained by the investigator, it was found that 20 % interviewees of the representative group offered no comment on the infrastructural problems faced by them in implementing the vocational education.

The 80 % interviewees offered some comments regarding the infrastructural problems faced by schools in implementing vocational education. Few of them disclosed that there were no vocational courses implemented in their schools.

In some schools, there was a provision of computer education only. Except the computer education course, no other vocational courses were available in those schools.

30 % Heads of schools informed that no teacher was appointed for vocational education. 3 to 4 % Heads of schools informed that if vocational education/ courses implemented in their schools, then another problems would arise regarding infrastructure.

4% interviewees mentioned that the infrastructure of their schools was very poor. There was no adequate classroom for the students to teach vocational courses. There was lack of tools and instruments including materials to practice some vocational courses.

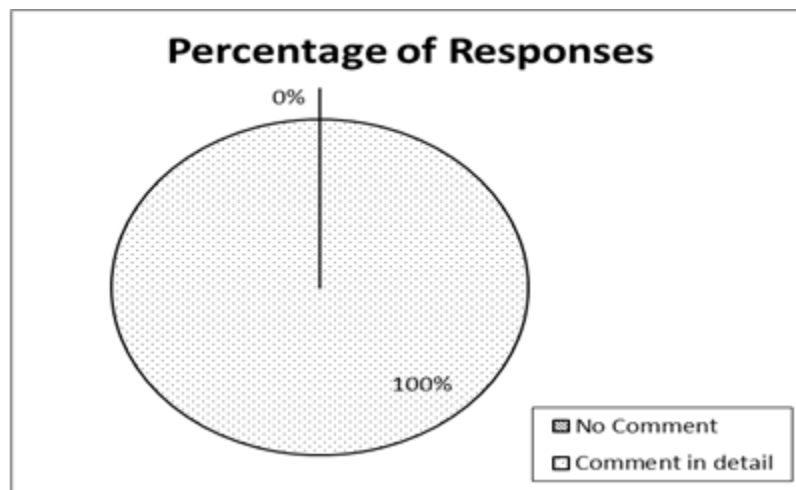
Around 12 % Heads of Schools mentioned that there was electricity facility in their schools. There was also lack of funding from Government to schools. 18 % Heads of Schools said that there was a lack of awareness among the students about different vocational courses.

## **2) Sanctioned and Working Strength of Vocational Teacher in the Schools :**

Table 49 : Quantum of responses towards the strength of Vocational Teacher

Response type	Number of Heads of Institutions	Percentage
No Comment	0	0
Comment in detail	76	100

Figure 32 : Percentage of responses towards the strength of Vocational Teacher



All the interviewees, i.e. the Heads of institutions were asked whether there was any vocational teacher post in their schools, because for implementation of the vocational courses in schools presence of teacher in classroom is a must. Besides, they were asked whether such posts were filled up or not.

All the interviewees responded to this question. From the responses, it was seen that 96 % (approx.) schools did not have post of Vocational Teacher. Only 4 % (approx.) schools had Vocational Teacher posts and those were filled up.

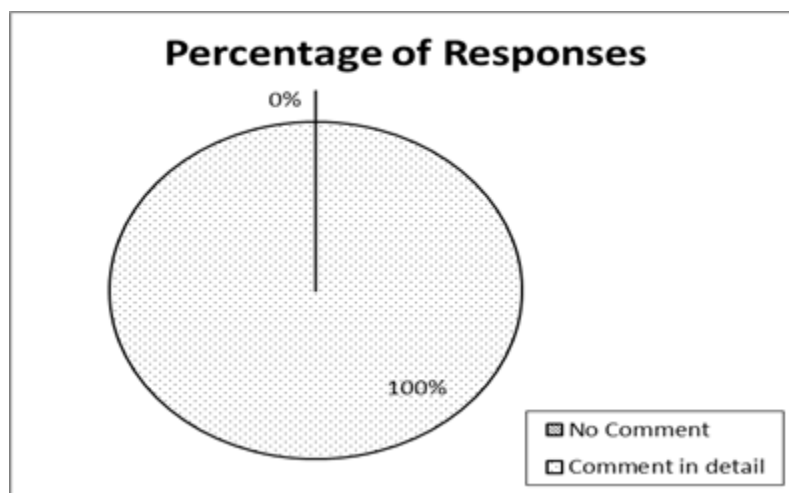
The 4 % (approx.) respondents mentioned that teaching posts available in the schools were only for computer education under Rajiv Gandhi Computer Literacy Scheme.

### 3) Fund position for implementing Vocational Education Programmes along with the specific problems relating to funding :

Table 50 : Quantum of responses towards funding position

Response type	Number of Heads of Institutions	Percentage
No Comment	0	0
Comment in detail	76	100

Figure 33 : Percentage of responses towards funding position



For operating and implementation of the vocational educational programme, financing was one of the most vital factors, because, the educational process cannot run itself without a proper financing. There were different types of costs involved while processing and implementing vocational education programmes.

Considering the financial factors in educational setup, interviewees were asked whether there was sufficient fund or fund allocation to schools for implementing vocational educational programme. Interviewees were also asked to inform whether there was any specific problems relating to funding.

About 2 % respondents stated that funds are released by RMSA now and then. But, they did not say whether the fund received is sufficient or not. Another 2 % respondents said that though sufficient fund was not received for implementing

vocational education programmes, but a little amount of fund is received for imparting computer education.

Majority of the respondents simply said that there was no sufficient fund for implementing the vocational education programme. Around 9 % respondents said that sufficient fund is not received by their schools as there was no provision for imparting vocational education in their schools. Approximately 2 % respondents mentioned there was no sufficient fund for implementing vocational education programmes right now.

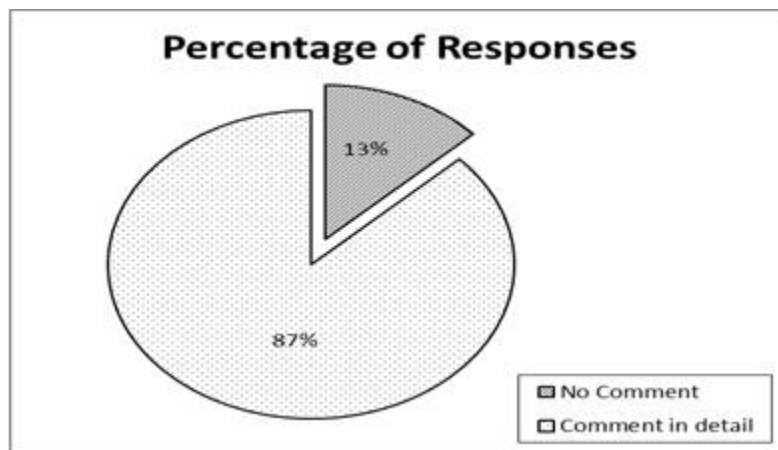
Lack of fund discouraged use in implementing vocational educational programmes in their institution. Vocational education programmes were not given much prominence in Assam and therefore growth in this field is also limited.

#### 4) Issues being faced by the Schools in the area of Vocational Education :

Table 51 : Quantum of responses towards the issues being faced

Response type	Number of Heads of Institutions	Percentage
No Comment	10	13
Comment in detail	66	87

Figure 34 : Percentage of responses towards the issues being faced



Though the programme of vocationalisation of secondary and higher secondary education had been implemented by the state government in the line of centrally sponsored scheme, still it was seen that schools are far behind from the prescribed goal. There were lots of issues and problems which creates hindrances to reach the goal of vocationalisation.

The heads of schools were asked to inform the issues being faced by the schools specially in the area of vocational education. About 39 % heads of sampled schools responded to the investigator's question and they intimated about the various issues.

Some of the respondents informed that the students would take vocational subjects and they also desired to take vocational subjects, but there was lack of communication and awareness about the vocational courses.

Some of the respondents informed that no vocational courses were available in their schools and therefore the question was not relevant. It is true that the provision of vocational education was not become accessible in all schools as the programme was being offered in some selected schools.

Some respondents intimated that there was no post or position of vocational teacher available in their schools to facilitate the vocational education courses to the students. Besides, no any qualified personnel were available in the schools to facilitate the programme to the students.

Another few respondents informed that there was no sufficient fund received by the schools to incur the expenditure occurred for offering vocational courses. There were also infrastructural shortcomings in the schools.

Though vocationalisation of secondary and higher secondary education were introduced, still limited courses were being implemented in schools. Such vocational courses were not diversified enough to cater the diverse need of the



students. There was lack of motivational programmes for the students to attract the students towards the vocational courses.

Besides, the parents were not mentally graded up to admit their students in to the courses. There was also a gap between the vocational educational and employment. The role played by the educational administration for execution of the vocational programmes required to be examined.

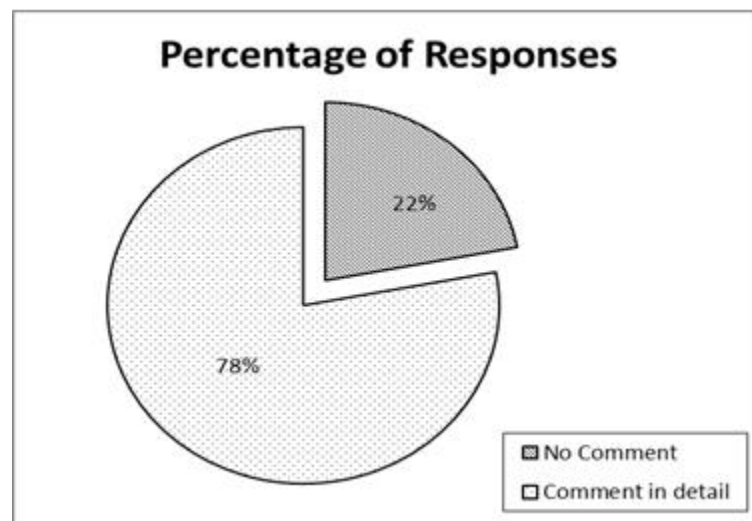
#### **4.8. MEASURES TO DEVELOP VOCATIONAL INTEREST AMONG THE STUDENTS**

##### **1) Whether vocational courses are diversified enough to cater to the diverse needs of students :**

Table 52 : Quantum of responses towards diversified vocational courses

Response type	Number of Heads of Institutions	Percentage
No Comment	17	22
Comment in detail	59	78

Figure 35 : Percentage of responses towards diversified vocational courses



We know that every individual was different from each other. Their personality, intelligent, aptitude, attitude, interests, etc. all were different. To some extent similarities might be there, still there were differences.

Considering the fact of individual differences, the investigator tried to know whether the vocational courses being implemented are diversified and whether they were able to cater the diverse needs of the students.

About 78 % respondents expressed their views towards the question. Among them, 11 % respondents directly said that the vocational courses are diversified and they are able to cater the diverse need of the students. 2 % respondents opined that vocational education has not been given importance in the state.

Another 2 % respondents said that most of the students were not interested simply in vocational courses, but they want job-oriented courses. Again another 2 % respondent doubts that vocational courses failed to attract students as it unable to guarantee the future prospects on achievement.

2 % respondents said that the introduction of systematic, well-planned and effective implementation of vocational education is crucial. By vocational education, individual employability can be enhanced and the mismatch between the demand and supply of skilled manpower can be reduced. Besides, an alternative can be provided for those pursuing higher education without particular interest or purpose.

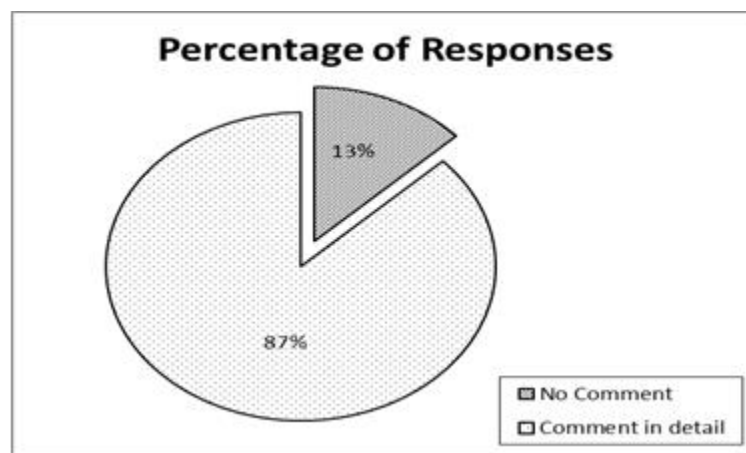
The all other respondents expressed that the vocational courses were diversified to some extent. Some courses were more beneficial and some were less. Courses should be so designed and provided, so that every student can enroll himself/ herself according to his/ her need or interest. Besides, such courses must have relationship with vocations; otherwise it will be less attractive.

## 2) Need and importance of Vocational Education :

Table 53 : Quantum of responses towards the need and importance of VE

Response type	Number of Heads of Institutions	Percentage
No Comment	10	13
Comment in detail	66	87

Figure 36 : Percentage of responses towards the need and importance of VE



In the emergent world, no one can deny the role of vocational education while making the people more self-reliant by shaping them with certain type of skills which are related with vocations.

To fulfill the need of the study, the sampled respondents were asked about the need and importance of vocational education. About 87 % respondents expressed their opinions towards the question.

Majority of the respondents expressed that vocational education is very important which gives perfect goal to their individual life. It is quite important and essential which helps the students to be practical. About 2 % of the respondents intimated that vocational education is essential for self-establishment of the students and it can contribute a great deal to minimize the unemployment.

Another 2 % of the respondents opined that if the vocational stream can be made distinct, it can prepare students for identified occupations spanning several areas of activities. To make the vocational education better with their facilities, the Industrial Training Institutes (ITIs) must be conformed to the larger vocational pattern.

About 82 % of respondents said that Vocational education is most important in every school to solve the unemployment problems, because the courses are job oriented and are related with vocations. Vocational education is very useful for students who are interested more in practice than theoretical education.

The same percentage of respondents also stated that the importance of vocational education in present hour is undeniable because it enables to fulfill the demand of economic security of the modern society.

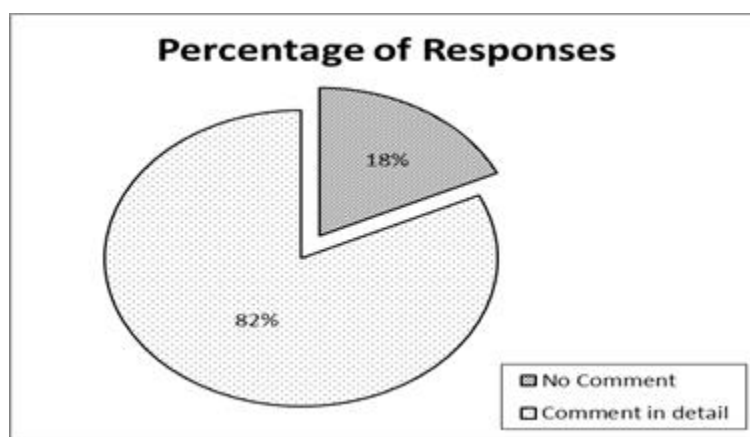
Vocational Education provides knowledge, efficiency and skills required for vocations by which one can directly engage himself or herself with certain types of vocations. It is quite helpful for generating employment and reducing unemployment problems.

### **3) Steps through which schools can help familiarize students with the world of work :**

Table 54 : Quantum of responses towards the steps to familiarize students with the world of work

Response type	Number of Heads of Institutions	Percentage
No Comment	14	18
Comment in detail	62	82

Figure 37 : Percentage of responses towards the steps to familiarize students with the world of work



The interviewees were asked to suggest some steps through which schools can help familiarize students with the world of work. About 82 % interviewees responded to the question.

4 % respondents stated that so far as Assam is concerned, vocational education is in the doldrums. Both Central and State Governments have to lead it then school can strive to implement it. The govt. should provide sufficient infrastructure, fund and Teaching Learning material and appoint sufficient trained teachers. About 2 % respondents stressed that the schools must make vocational education more interesting among the students. Students should be made understand how vocational education can make them self-dependent in future.

Another 4 % respondents said that the vocational education is more fruitful to the students of rural areas. Schools can help those students by introducing some vocational courses like, tailoring, carpenter, electrician, TV repairing, mobile repairing, etc.

Another 4 % respondents suggest to adopt some measures to familiarize students with the world of work; e.g. providing books, magazines and materials to the students; arranging group discussion; organizing meeting, seminar, street play of

vocational education; organizing workshops, creating opportunities for students to get exposed to workshops and industries; motivating them with the world of work where people enjoy economic security due to their competence, demonstrate on various future prospects that vocational education offers.

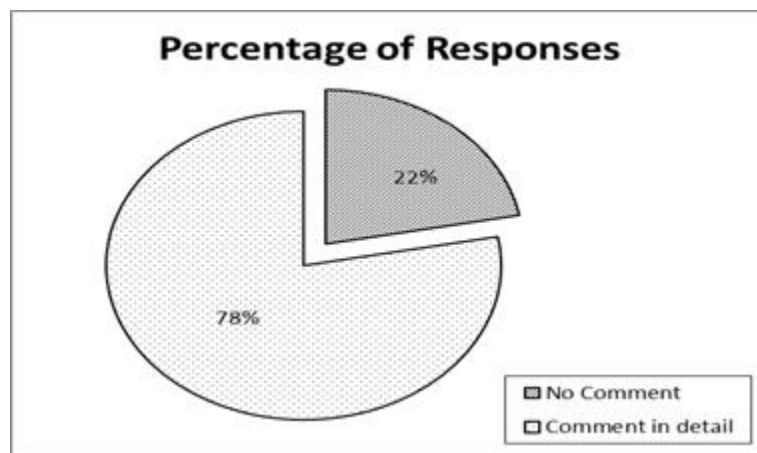
About 60 % respondents suggest that the students can be familiarized with the world of work by engaging in some manual works, such as gardening, making fencing, preparing bamboo/ wooden crafts within the school or outside the school. Some other programmes like tour/ visit to industries, factories or mechanical workshops can also be prescribed for the students. Participating works with societies, NGOs and self-help groups, etc. may also help students to get familiarized with the world of work.

#### 4) Steps to be taken by schools to develop vocational interest of students :

Table 55 : Quantum of responses towards the development vocational interest

Response type	Number of Heads of Institutions	Percentage
No Comment	17	22
Comment in detail	59	78

Figure 38 : Percentage of responses towards the development vocational interest



Interviewees were asked about the steps that can be taken by schools to develop vocational interest of students. 78 % interviewees responded to the question and remaining 22 % offered no comment. About 4 % respondents said that the vocational interest of the students can be developed by assigning them to visit some places, e.g. industry, mechanical workshops, shopping malls, etc.

Another 18 % respondents informed that the infrastructural conditions of the schools are very poor to provide all the vocational courses introduced by the government. Among them, 4 % respondents said that there is no post of vocational teacher except for computer education. In absence of teacher, students cannot be made interested towards the vocational courses.

Another 4 % respondents simply said that students should be advised to accept vocational education heartily. Schools can also select interested students and can give guidance on vocational courses.

Respondents equal to around 2 % said that the vocational interest of the students can be developed by the schools by organizing meetings, seminars, street play, and workshops as well as by arranging educational tour to industrial areas. Another 2 % respondents suggested that schools may initiate some kind of regular programmes which demonstrate the benefits of vocational education.

Schools may invite exemplary figures benefitted from vocational education in order to inspire the students. Besides, schools may play a big role for grading up the mindset of the students and changing their outlook. Schools can create an enabling atmosphere where vocational education may flourish. Schools may also introduce a compulsory class of vocational education.

About 48 % respondents said that the vocational interest of students can be developed by introducing them to different vocational subjects and courses along with the different jobs or vocations related to those subjects or courses. The

usefulness of vocational education for ensuring job is also required to be explained to the students.

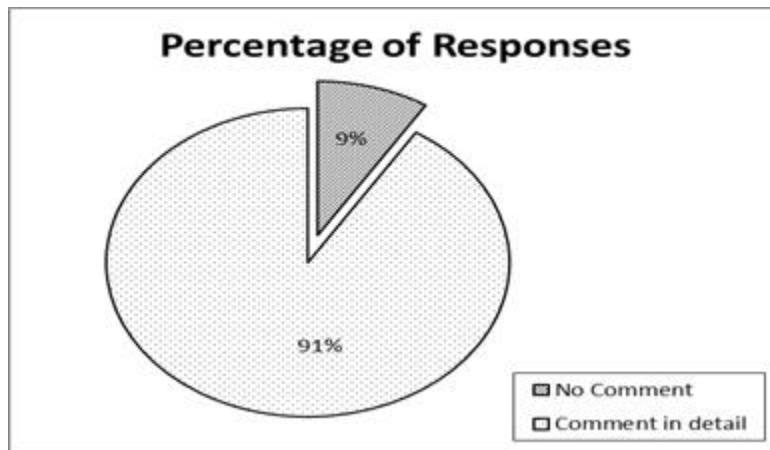
#### 4.9. MEASURES TOWARDS EFFECTIVE VOCATIONAL GUIDANCE AND COUNSELLING

##### 1) Policies towards Vocational Guidance and Counselling in the State :

Table 56 : Quantum of responses with regard to availability of sound policy

Response type	Number of Heads of Institutions	Percentage
No Comment	7	9
Comment in detail	69	91

Figure 39 : Percentage of responses with regard to availability of sound policy



Interviewees were asked whether a sound policy of vocational guidance and counselling is available in the state. From the interviewees, 91 % responded to the question whereas, 9 % did not give any comment.

About 29 % respondents straightway said that there is no sound policy of vocational guidance and counselling available in the state. Another 4 %



respondents said that there is a sound policy of vocational guidance and counselling available in the state.

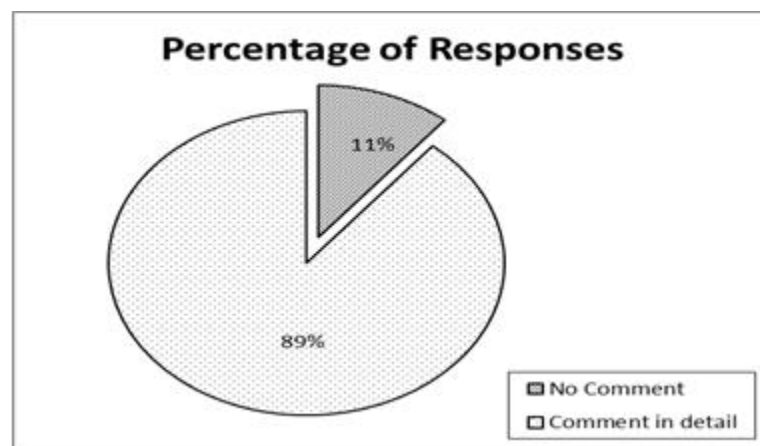
Remaining 58 % respondents said that policies are there, but it can be evaluated or termed as sound only after getting output or result from it. So, it is long term process. After 10 to 20 years' time, we can see its results.

## 2) Strength of Guidance Counsellors, both sanctioned and working, in the schools :

Table 57 : Quantum of responses towards the strength of Guidance Counsellor

Response type	Number of Heads of Institutions	Percentage
No Comment	8	11
Comment in detail	68	89

Figure 40 : Percentage of responses towards the strength of Guidance Counsellor



All the interviewees were asked whether there is any position of Guidance Counsellor in their schools and if so, whether it is filled. About 89 % interviewees replied to the question and another 11 % did not offer any comment. About 4 % respondents said that there is the position of Guidance Counsellor in their schools and it is filled up.

Another 4 % respondents gave comment not directly related to the question asked. They said that proper measures from the Govt. would be heartily welcomed by the schools and then by the public. To make vocational education effective, an effective programme of vocational guidance and counseling should be there in the State. Moreover, a specific need based curriculum should be preferred which will give students opportunities under predetermined conditions for professional growth, career improvement and lateral entry course of general, technical and professional education through appropriate bridge courses.

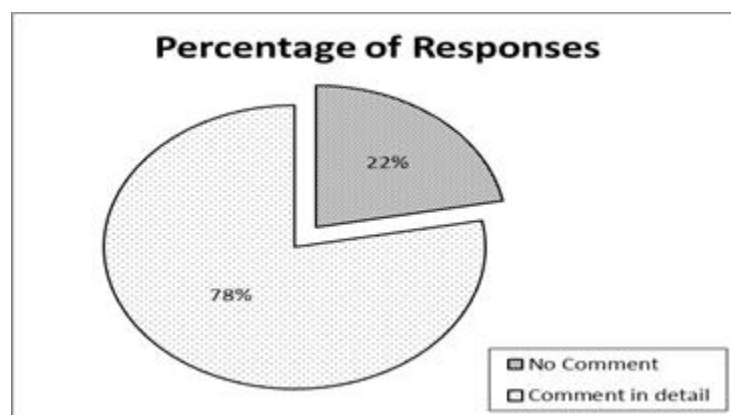
Remaining 81 % respondents said that there is no any position of Guidance Counsellor in their schools

### 3) Measures towards an Effective Programme of Vocational Guidance and Counselling in the State :

Table 58 : Quantum of responses towards effective Guidance & Counselling Programme

Response type	Number of Heads of Institutions	Percentage
No Comment	17	22
Comment in detail	59	78

Figure 41 : Percentage of responses towards effective Guidance & Counselling Programme



All the interviewees were asked to suggest some measures for an effective programme of vocational guidance and counselling in the state. About 78 % interviewees responded to the question, while 22 % did not offer any comment.

About 4 % respondents suggested for entangling parent, guardian, public and experts for an effective programme of vocational guidance and counselling in the state.

20 - 25 % respondents suggested for organizing workshops, exhibitions and other awareness programme both for parents and students. Another 2 % suggested that career counseling and guidance programme should be implemented in the secondary schools.

Again another 2 % respondents suggested for organizing meeting, quiz, street play, workshop, etc. They also suggested that there should be educational tour to industrial area and exposure training programme on vocational courses.

Suggestions were received for designing programme to provide detailed information on vocational education, it's aims, contents and prospects. Schools should have Guidance & counseling programme which is very essential. There should also be motivational programme.

About 40 % respondents suggested that uniform guidelines/ policies on vocational guidance and counselling are must for the entire state. There should be strict provision for recruitment and posting of qualified personnel for this profession in every High and Higher Secondary School of the State.

Besides, the Guidance Personals or Counsellors should be given freedom to take every possible steps so that students can be traced out properly and they can be suggested for, assigned to or enrolled in suitable vocational courses. Co-ordination among the counselors of the Schools is also inevitable.

There must be sufficient funding to each school on priority for implementing this programme. Parental participation and awareness is also pivotal for better outcome of the vocational programme.

#### **4.10. CONCLUSION**

In the study, obtained data were analysed quantitatively as well as qualitatively considering their nature. In respect of quantitative data very concisely, it was found that there were no significant differences or little differences between boys and girls while showing their interests in different vocational fields. At the same time, it was revealed that students had little interest in some important vocational fields which were related with their society and their day to day life.

In respect of qualitative data, it was found that sufficient numbers of subjects related to vocations were prescribed in the present syllabus of Class-IX. However, some other subjects relevant to our daily life and which were related to vocations need to be introduced.

Regarding problems of schools, it was seen that many schools have not sufficient infrastructure for providing vocational education. There were no trained teachers, no sufficient funding, no electrification except in few schools, any tools and apparatus etc. There was lack of interest among the students and parents for obtaining vocational education. The provision of Guidance and Counsellor in secondary schools could be treated as Zero as there was no manpower engaged for the said purpose.

## **Chapter - 5**

### **SUMMARY, FINDINGS, DISCUSSION, RECOMMENDATIONS, CONCLUSION AND SUGGESTIONS FOR FURTHER RESEARCH**

#### **5.1. SUMMARY**

The study was conducted in Lakhimpur District of Assam. The district occupies an area of 2,277 square Kilometres. The district is surrounded by Siang and Papumpare District (Arunachal Pradesh) on the North and by Dhemaji District and Subansiri River on the East. Similarly, on the southern and western sides there is Majuli Sub Division of the Jorhat District and Gohpur sub division of the Biswanath District respectively. As per Population Census 2011, total population of Lakhimpur district was 10,40,644 numbers where male 5,29,484 numbers and female 5,11,160 numbers (Sex ratio was 965). The total population of the District constituted 3.34 % of the total population of Assam. The average literacy rate of Lakhimpur in 2011 was 78.39 percent.

#### **CONCEPTUAL FRAMEWORK OF THE STUDY**

The study of vocational interests is one of the oldest and prime areas within the field of psychology of interest which is mainly related to the world of work. The measurement of vocational interests is not evolved only due to the cause of predicting achievement. The said measurement of vocational interest was developed for the purpose of assessing the dispositions of the students or the youths so that they can be assisted while choosing right vocational course, a job or an occupation that will sustain their interests, keep them usefully employed and are themselves satisfying all through their career in working life.

To help the child to prepare himself for a right vocational choice, the test of vocational interest is important. Without testing the vocational interest of the children, proper vocational guidance cannot be provided.

School should take up the responsibility of helping the child in the vocational sphere of his life, because occupation is not only a means of earning a livelihood, but also a way of life – a social role. Therefore, vocational guidance should be provided to the child from the very early stage, especially at the secondary stage, and be continued even after a stable choice has been made.

### **SIGNIFICANCE OF THE STUDY**

During the present socio-economic scenario, it is very important to introduce the students with the world of work as well as the different courses directly or indirectly related to certain types of vocations. There is utmost need of care and importance to look in to the different fields where students show their interest. Interest itself has the inherent force to motivate students towards some specific fields. Interest is a psychological phenomenon which reveals likes or dislikes of a person. So it is quite inevitable to search out the inner choices of the students towards which fields students show their own interest.

Interest consist some specific characteristics that reflect something which is not revealed by the ability and the achievement. The measures of vocational interest help to find out the choices of the students in different vocations and their carrier prospects. It also helps to design student centred as well as choice based course curriculum. Moreover, it is considered as a tool for better vocational guidance.

At present, the schools and colleges are offering many vocational subjects from where students can opt for. But at this point, students may require guidance and counseling to select suitable subjects according to their interests which relates to their choiceable vocations. Besides, there is an utmost curiosity to search out the

difference of vocational interest that may exist among boys and girls. Therefore it was felt that the database of the present research, to some extent, will be useful to the teachers, counsellors and parents also to guide their students and children towards right direction for choosing their destination and helping them to proceed in a pre-planned and guided career path in accordance with their choice and interest. This may also enable the students to plan better and cope up with their learning and work pathways in the line of their life goals. Using vocational interest measurement in studying vocational choices as well as the world of works permits better understanding how the world of work is or can be sorted out in the form of individual characteristics.

### **STATEMENT OF THE PROBLEM**

The problem selected is stated as “Vocational Interest of Class-IX Students of Lakhimpur District of Assam : A Comparative Study”. The problem has been selected on the basis of a felt need particularly in the state of Assam in the area of Vocational education and skills especially for the students of secondary stage. There is a need to help individuals or students to identify vocations or vocational subjects that would be interesting and satisfying to them and enable them to become contributing members of society. Priority has also been given by the policy makers for introduction of different vocational as well as skill development programmes in secondary as well as higher secondary stage. Therefore the investigator considered it important to measure the students’ interest at the entry stage of secondary level so that students’ interest in diverse vocational fields can be identified and which would enable them to make sound vocational choices. At the same time, it is intended to compare i.e. to find out the similarities and differences of the interest of boys and girls in general and as per their locale (i.e. rural-urban) in ten different vocational fields. This kind of information is expected to help policy makers and others in the field to make sound policies in the area of vocational education and testing.

## OPERATIONAL DEFINITION OF TERMS USED

For the purpose of the present study, following terms have been defined as given :

1. **Comparative Study** : An undertaking that involves comparison, a statement or estimate of similarities and differences between two variables; in this case, between boys and girls.
2. **Interest** : Interest is the feeling that prompts to spontaneous activity. It is an expression of likes or dislikes. It is an inspiring potency that impels us to attend to a person, an activity or a thing.
3. **Vocational Interest** : It refers to the interest of a vocation (s) or relating to a vocation (s). In educational purpose, it refers to the interest of applied educational courses or relating to such courses which concerned with the skills demanded by an occupation, a trade or a profession.

## OBJECTIVES

1. To compare the vocational interest, namely, in Literary, Scientific, Executive, Commercial, Constructive, Artistic, Agriculture, Persuasive, Social, Household fields, between Boys and Girls of Class-IX in general and as per their locale (rural-urban).
2. To find out the subjects related to vocations in the present syllabus of Class-IX.
3. To find out the problems faced by schools in implementing Vocational Education.
4. To suggest measures to develop vocational interest among the students.
5. To suggest measures towards effective vocational guidance & counselling.



## **HYPOTHESES**

1. There is no significant difference between boys and girls in Literary interest.
2. There is no significant difference between boys and girls of rural areas in Literary interest.
3. There is no significant difference between boys and girls of urban areas in Literary interest.
4. There is no significant difference between boys and girls in Scientific interest.
5. There is no significant difference between boys and girls of rural areas in Scientific interest.
6. There is no significant difference between boys and girls of urban areas in Scientific interest.
7. There is no significant difference between boys and girls in Executive interest.
8. There is no significant difference between boys and girls of rural areas in Executive interest.
9. There is no significant difference between boys and girls of urban areas in Executive interest.
10. There is no significant difference between boys and girls in Commercial interest.
11. There is no significant difference between boys and girls of rural areas in Commercial interest.
12. There is no significant difference between boys and girls of urban areas in Commercial interest.
13. There is no significant difference between boys and girls in Constructive interest.
14. There is no significant difference between boys and girls of rural areas in Constructive interest.

15. There is no significant difference between boys and girls of urban areas in Constructive interest.
16. There is no significant difference between boys and girls in Artistic interest.
17. There is no significant difference between boys and girls of rural areas in Artistic interest.
18. There is no significant difference between boys and girls of urban areas in Artistic interest.
19. There is no significant difference between boys and girls in Agriculture interest.
20. There is no significant difference between boys and girls of rural areas in Agriculture interest.
21. There is no significant difference between boys and girls of urban areas in Agriculture interest.
22. There is no significant difference between boys and girls in Persuasive interest.
23. There is no significant difference between boys and girls of rural areas in Persuasive interest.
24. There is no significant difference between boys and girls of urban areas in Persuasive interest.
25. There is no significant difference between boys and girls in Social interest.
26. There is no significant difference between boys and girls of rural areas in Social interest.
27. There is no significant difference between boys and girls of urban areas in Social interest.
28. There is no significant difference between boys and girls in House-held interest.
29. There is no significant difference between boys and girls of rural areas in House-held interest.
30. There is no significant difference between boys and girls of urban areas in House-held interest.

## **DELIMITATIONS OF THE STUDY**

1. The study has been restricted to vocational interest in ten (10) vocational areas only.
2. The study has been restricted to State Government and State Government's Provincialized Secondary and Higher Secondary Schools only.
3. The study has been restricted to the Class-IX students only.
4. The study has been restricted within the Lakhimpur District of Assam.

## **METHODOLOGY AND PROCEDURE OF THE STUDY**

The present study was conducted following the descriptive type survey method which facilitates means for field-data collection as well as provides techniques to study, describe and interpret what exists at present. By this method, the identified phenomena can be investigated in natural setting which allows the investigator to collect and measure the data. Furthermore, it also allows classification, analysis, comparison and interpretation of data.

## **POPULATION OF THE STUDY**

In the present study, the main population includes all the Class-IX Students and heads of institutions of Assam Government and Assam Government's Provincialized Secondary and Higher Secondary Schools of Lakhimpur District. As per Student Enrollment data published by NUEPA, New Delhi, the total enrollment in Class-IX was 15,602 numbers in Lakhimpur District during the year 2015-16, where boys numbered 7,417 and girls numbered 8,185.

## **SAMPLE OF THE STUDY**

The students of Class-IX studying in 20 % of the total number of Assam Government and Assam Government's Provincialized Secondary and Higher Secondary Schools of Lakhimpur District, numbering 227 were formed the

sample of the study. The said 20% schools were selected by using Cluster and Simple Random Sampling Methods. The sample so selected/formed finally, reflected equal representation of the actual quantum of population of both Urban and Rural locality covered under the study.

a) Sample Students of Class-IX :

Students	Rural	Urban	Total	Total number of sample
Boys	439	53	492	1036
Girls	509	35	544	

b) Sample Heads of Schools :

The investigator had to use his own mind while selecting the Heads of the schools for conducting interview as there were some factors, such as non-availability of relevant courses in some schools, non-availability of Head Teacher in few schools, etc. Considering those factors, the investigator had finally selected following numbers of Heads of Schools including all the Heads of sample schools shown as a) at above, which represented for 36 % (approx.) of total population :

Category	Total
Total Schools	227
Total Heads of Schools	213*
Total sample Heads of Schools	76

*\* excluding the schools where no Heads were available.*

## TOOLS USED

(A) Vocational Interest Record (VIR)

The Vocational Interest Record (VIR) (version 2012), developed and standardized by Dr. S. P. Kulshrestha, was used to collect data. The V.I.R. was standardized on a sample of 1050 students of delta class and 700 students of high school grade of

different institutions of U.P. and M.P. provinces. Stratified random sampling was employed for selection the representative group. A copy of Vocational Interest Record (in English) is given in Appendix-I.

The primary objective of the Vocational Interest Record is to measure the vocational interests of the students and making them able to select available subjects according to their interested vocations.

The test retest reliability co-efficient was obtained .69 with a time interval of 15 days. The co-efficient of validity was found .81, .83 and .85 respectively. Scores can be interpreted in both quantitatively as well as qualitatively.

#### (B) Interview Schedule for the Head of the Schools

An Interview Schedule was developed for conducting interviews with the Heads of schools. The Interview Schedule was designed with 10 (ten) questions based on the comments and recommendations of the experts. A copy of Interview Schedule (in English) is given in Appendix-II.

The interview was semi structured for eliciting significant information, thus ensured content validity. The critical judgments of subject experts were remained significant and helpful while selecting the essential questions. The validity of an answer was checked by immediately cross examining the interviewee.

Reliability or the consistency of the responses was evaluated by restating a question in slightly different form while filling up the schedule.

#### (C) Syllabus Review Checklist

A Syllabus Review Checklist was constructed to find out and identify the various subjects related to vocations offered in the syllabus of Class IX which was prescribed by Board of Secondary Education, Assam. Care was taken to refer to the latest syllabus at the time of conducting the review.

The other point which was considered was to conduct a review on the contents of the subjects related to vocations in terms of both Theoretical Knowledge and

Practical Experiences. A copy of Syllabus Review Checklist (in English) is given in Appendix-III.

## **DATA COLLECTION**

Data collection is essentially an important part of the research process so that the hypotheses, inferences or generalizations tentatively held may be identified as valid, verified as correct, or rejected as untenable. Besides, for drawing right inferences or conclusion, collected data must be reliable.

After taking into account all the important points noted above, relevant data or information were collected only from the primary sources as far as possible.

## **PROCEDURE OF DATA COLLECTION**

With due permission from District Education Authority, the investigator visited the schools and introduced himself to the students and explained the purpose of the visit. Then, the students were administered the test i.e. V.I.R. with proper instructions. Students were requested to respond to each item. Assurance was given to the students that the information/ data so arrived out would be used solely for research study and would be kept confidential. Sufficient time was allotted to make their responses. All the respondents were very co-operative with the investigator.

For conducting interview, the Heads of Schools were met personally by the investigator on different appointed days. Before starting the interview process, a detailed explanation on the purpose of the research study was given to the Heads of Schools who would be the Interviewees. The investigator made the interviewees understand about the actual purpose of the interview and they were requested to respond naturally for the success of the interview. Thereafter, the investigator asked the questions personally and recorded the responses personally by putting a tick mark against each item in the interview schedule so that validity and reliability of the interview schedule could be ascertained.

While recording the responses, outlook of the respondents was also taken into account. It was ensured that adequate responses were obtained. All the Interviewees co-operated well.

## STATISTICAL TECHNIQUES USED

The statistical techniques assist greatly in and provide means for gathering, organizing, analyzing and interpreting the scores or numerical data. The processing of numerical data through statistics calls for competence in the use of statistical methods and for understanding of concepts that underline their development and their application.

In the present study, the Descriptive statistical techniques viz. Mean and Standard Deviation were used.

Mean (M) :

This is also known as arithmetic average or arithmetic mean. This technique is used to compare two observed groups or two sets of observed data. The mean of set of observations or scores is obtained by dividing the sum of all the values by the total number of values. In the present study, the following formula for calculating Mean of un-grouped data was used :

$$M = \frac{\sum X}{N}$$

Where,

M = Mean

$\sum$  = Sum of

X = Score of boys and girls in each field.

N = total number of boys and girls in the sample/ sample size.

Standard Deviation ( $\sigma$ ) :

Standard Deviation ( $\sigma$ ) is the square root of the sum of the square of the deviation of each observation from the mean and divided by the size of the sample. The average of the squared deviations of the measures or scores from their mean is known as the variance. The standard deviation is the positive square root of variance.

Standard Deviation was used for getting a complete picture of the data and to know how the scores tend to be distributed. It serves as a means of describing status or position of an individual or a score in a group or a distribution. In the present study, the following formula is used :

$$\sigma = \sqrt{\frac{\sum x^2}{N}}$$

where,

$\sigma$  = Standard Deviation

$\sum$  = Sum of

$x^2$  = square of deviation of the raw score from the mean

N = number of scores or measures

Due to the limitations in descriptive statistical techniques which allow only for describing the properties of particular samples, inferential statistical technique viz. t-test was used to make generalizations or inference about the populations based on the observations or characteristics of the samples.



*t*-test :

Inferential statistical technique viz. ‘*t*-test’ was used as per characteristics of data obtained in this study and to make inferences about the populations based on the observations or characteristics of samples with a known degree of accuracy.

Formula,

$$t = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

Where,

$M_1$  = Mean of the first group.

$M_2$  = Mean of the second group.

$\sigma_1$  = Standard Deviation of the first group.

$\sigma_2$  = Standard Deviation of the second group.

$N_1$  = Sample size of the first group.

$N_2$  = Sample size of the second group.

For calculation of the statistical values, the investigator used the Statistical Software package viz. OpenStat alongwith the manual calculation. Besides, Microsoft Excel was used for graphical representation, calculation and cross checking of values.

## OTHER TECHNIQUES USED

### Syllabus Review

Syllabus Review was made for finding out the subjects those were related to various vocations, in the syllabus of Class-IX as demanded by Objective No. 2.

For this purpose, the contents of the subjects including their theoretical and practical components were reviewed with the help of a checklist.

### Logical Analysis

For searching out the problems faced by schools in implementing Vocational Education, means to develop vocational interest among the students, and ways for effective vocational guidance & counselling, the investigator proceeded systematically and rationally to address all the issues come under these domains.

## **DATA ANALYSIS AND INTERPRETATION**

The collected data were analysed by using suitable techniques according to the order of research objectives and set hypotheses. For analyzing the quantitative data, i.e. to compare the variables, Mean, Standard Deviation & t-value were computed. Graphical presentations were also made as far as possible. For analyzing the qualitative data, syllabus review as well as logical analysis was made. Finally, interpretations were made to bring the findings to an intelligible and interpretable form so that the predefined objectives could be verified and assessed.

### **5.2. FINDINGS OF THE STUDY**

The findings of the study are furnished according to the order of the research questions.

#### **5.2.1. COMPARISON OF THE VOCATIONAL INTEREST BETWEEN BOYS AND GIRLS OF CLASS-IX**

- 1) The majority of students had average interest in Literary field. Approximately, one third of the students had showed low interest in the said field. Girls' interest was higher than the interest of boys.

- 2) There was no significant difference found between the boys and girls in Literary Interest as the obtained t-value 1.127 is not significant at 0.05 level.
- 3) There was no significant difference found between the boys and girls of rural areas in Literary Interest as the obtained t-value 1.267 is not significant at 0.05 level.
- 4) There was no significant difference found between the boys and girls of urban areas in Literary Interest as the obtained t-value 0.065 is not significant at 0.05 level.
- 5) The majority of students had shown average interest in Scientific field. On the other hand, approximate one fourth of the students showed low interest in said field. Girls' interest was approximately equal with the interest of boys.
- 6) There was no significant difference found between the boys and girls in Scientific Interest as the obtained t-value 0 is not significant at 0.05 level.
- 7) There was no significant difference found between the boys and girls of rural areas in Scientific Interest as the obtained t-value 0.887 is not significant at 0.05 level.
- 8) There was significant difference found between the boys and girls of urban areas in Scientific Interest as the obtained t-value 2.40 is significant at 0.05 level.
- 9) The majority of students showed average interest in Executive field. On the other hand, approximate one fifth of the students had low interest in the said field. Boys' interest was approximately equal with the interest of girls.
- 10) There was no significant difference found between the boys and girls in Executive Interest as obtained t-value 0.028 is not significant at 0.05 level.

- 11) There was no significant difference found between the boys and girls of rural areas in Executive Interest as the obtained t-value 0.172 is not significant at 0.05 level.
- 12) There was no significant difference found between the boys and girls of urban areas in Executive Interest as the obtained t-value 0.644 is not significant at 0.05 level.
- 13) The majority of students had shown average interest in Commercial field. On the other hand, approximate one third of the students showed low interest in the field. Girls' interest was just higher than the interest of boys.
- 14) There was no significant difference found between the boys and girls in Commercial Interest as the obtained t-value 0.955 is not significant at 0.05 level.
- 15) There was no significant difference found between the boys and girls of rural areas in Commercial Interest as the obtained t-value 1.157 is not significant at 0.05 level.
- 16) There was significant difference found between the boys and girls of urban areas in Commercial Interest as the obtained t-value 0.158 is significant at 0.05 level.
- 17) One third students had shown average interest in Constructive field. On the other hand, majority of students had low interest in said field. Girls' interest was higher than the interest of boys.
- 18) There was significant difference between the boys and girls in Constructive Interest as the obtained t-value 4.639 is significant at 0.05 level.
- 19) There was significant difference between the boys and girls of rural areas in Constructive Interest as the obtained t-value 4.499 is significant at 0.05 level.

- 20) There was no significant difference found between the boys and girls of urban areas in Constructive Interest as the obtained t-value 1.213 is not significant at 0.05 level.
- 21) The majority of students had shown average interest in Artistic field. Boys' interest was just higher than the interest of girls.
- 22) There was significant difference found between the boys and girls in Artistic Interest as the obtained t-value 2.632 is significant at 0.05 level.
- 23) There was significant difference found between the boys and girls of rural areas in Artistic Interest as the obtained t-value 2.811 is significant at 0.05 level.
- 24) There was no significant difference found between the boys and girls of urban areas in Artistic Interest as the obtained t-value 1.401 is not significant at 0.05 level.
- 25) About one third students had shown average interest in Agricultural field. Majority of students expressed low interest in this field.
- 26) There was no significant difference found between the boys and girls in Agriculture Interest as the obtained t-value 0.108 is not significant at 0.05 level.
- 27) There was no significant difference found between the boys and girls of rural areas in Agriculture Interest as the obtained t-value 0.270 is not significant at 0.05 level.
- 28) There was no significant difference found between the boys and girls of urban areas in Agriculture Interest as the obtained t-value 0.218 is not significant at 0.05 level.
- 29) Less than 50 % of boys and girls had shown average interest in Persuasive field. On the other hand, approximate one third of the students expressed low interest in said field.

- 30) There was no significant difference found between the boys and girls in Persuasive Interest as the obtained t-value 0.155 is not significant at 0.05 level.
- 31) There was no significant difference found between the boys and girls of rural areas in Persuasive Interest as the obtained t-value 0.364 is not significant at 0.05 level.
- 32) There was no significant difference found between the boys and girls of urban areas in Persuasive Interest as the obtained t-value 0.054 is not significant at 0.05 level.
- 33) Less than 50 % students had shown average interest in Social field. Approximately, 40 % students had shown low interest in this field.
- 34) There was no significant difference found between the boys and girls in Social Interest as the obtained t-value 1.706 is not significant at 0.05 level.
- 35) There was significant difference found between the boys and girls of rural areas in Social Interest as the obtained t-value 2.003 is significant at 0.05 level.
- 36) There was no significant difference found between the boys and girls of urban areas in Social Interest as the obtained t-value 0.398 is not significant at 0.05 level.
- 37) The majority of students showed average interest in Household field, whereas, approximately 35 % students expressed low interest in this field.
- 38) There was no significant difference found between the boys and girls in Household Interest as the obtained t-value 0.248 is not significant at 0.05 level.
- 39) There was no significant difference found between the boys and girls of rural areas in Household Interest as the obtained t-value 0.06 is not significant at 0.05 level.

- 40) There was no significant difference found between the boys and girls of urban areas in Household Interest as the obtained t-value 1.780 is not significant at 0.05 level.

### **5.2.2. SUBJECTS RELATED TO VOCATIONS IN THE PRESENT SYLLABUS OF CLASS-IX**

To find out the subjects related with vocations in the present Syllabus of Class-IX, the syllabuses for the academic session 2014, 2015 and 2016 were reviewed. The syllabuses of the above three years were remained similar, except inclusion or exclusion of one or two subjects. It was seen that sufficient numbers of subjects were provided in the Class-IX syllabus which are related with different vocations.

In the present syllabus of Class-IX (also considering the academic session 2016), following subjects were found related with vocations :

- |                                |                       |
|--------------------------------|-----------------------|
| 1) Computer Science            | 7) Wood Craft         |
| 2) Music                       | 8) Dance              |
| 3) Fine Art                    | 9) Agriculture        |
| 4) Textile Design and Clothing | 10) Garment Designing |
| 5) Cane and Bamboo Technology  | 11) Home Science      |
| 6) Co-Curricular Activities    | 12) Scouts and Guide  |

All the subjects were designed to provide as elective or optional subjects from where students can choose subjects along with the compulsory subjects.

### **SUBJECTWISE COURSE CONTENTS AND ITS RELEVANCE TO VOCATIONS**

- 1) The Computer Science subject consisted of the theoretical units/ chapters like, basics of Information Technology, Information Processing Tools, Information Technology Application and its Societal Impacts.

- 2) Practical works like, working on Operating System, Word Processing, Presentation in Slides and creation of Spread-sheet were also included in the subject of Computer Science.
- 3) Vocations relating to Computer Science subject were - Business Analyst, Database Administrator, Games developer, Information System Manager, IT Consultant, Multimedia Programmer, System Analyst, Systems developer, Web designer & developer, etc.
- 4) In the Wood Craft subject total twelve theoretical and ten practical units/ chapters were included. Theories related to the concepts and knowledge on Safety precaution, Workshop safety, hand tools safety, trade in wood craft, introduction of different hand tools used in woodcraft care and their maintenance, Boring tools, planing tools, fixing or Striking tools and their uses, Drilling tools and miscellaneous tools and their uses, Carpentry process Marking, Measuring and sawing, Planning, Chiseling, fitting and testing, types of joints - Cross half lap, Trap, T and butt joints etc.
- 5) Practical works were, Demonstration of workshop safety, Practice of operation of fire extinguisher, Industrial visit to wood working shop, Demonstration of various type and size of hand tools and practice of sharpening hand tools and operation of various types of hand tools and Demonstration on all theoretical knowledge having practical utility.
- 6) There were some vocations relating with Wood Craft subject viz. carpentry, wood-craft designer, etc.
- 7) In the subject of Music, five theoretical units/ chapters were included under the category of Vocal-Instrument and Tabla/Pakhawaj.
- 8) Also practical works on vocal and string instruments were included in Music subject.
- 9) The Music subject was purely relating with some vocations, viz. Musician, Singer, Songwriter, Music Recorder & Producer, etc.
- 10) In Dance subject, theoretical concepts and knowledge on dance were facilitated. It also included Indian classical dances and their origin, Nritya, Natya, Basic Postures of dances and Hand gestures. Knowledge on



Bharat Natyam, Sttriya Dance, Odissi, Kathak and Manipuri were also included.

- 11) Practical works or performance on Bharat Natyam, Sttriya Dance, Odissi, Kathak and Manipuri were prescribed for.
- 12) The knowledge and skills developed through Dance subject were directly related with some vocations, viz. Choreographer, dancer, Lighting/ set designer, etc.
- 13) In the subject of Fine Art, four units/ chapters were framed as theory on definition of Fine Art and other related areas, Indian Art - An introductory note, Art of Assam : An introduction, History of Western Art.
- 14) Practical works on free hand sketches from their own environment, a need based design in ornamental, geometrical pattern specially for table cloth, chador, gamosa, or a book cover, simple composition in line, on rubber or soft wood and printing it with press ink or in black and white drawing, concept of Sculpture etc. were given.
- 15) Vocations related with Fine Art subject were – Painter, Graphic designer, Artist, Visualizing Professional, Art Professional, Illustrator, Craft Artist, Animator, Lecturer, Art Museum Technician, Art Conservator, Art Director, etc.
- 16) In Agriculture subject, units/ chapters viz. Agriculture, crops and soils, Weather and Crops, Manure and fertilizers, Weed and weed control, Crop insect pests, Plant diseases, Cropping system, Horticultural crops, Cultivation of some horticultural crops of Assam, Cultivation of some important field crops of Assam, Fish farming, were included.
- 17) The subject related with some vocations, viz. Agricultural consultant, Firm Manager, Fish Firm manager, Plant breeder, Rural practice surveyor, soil analyst, etc.
- 18) In the subject of Textile Design and Clothing, theoretical units/ chapters, viz. Composition with Basic Shape in Different Colours, Weaving, Dyeing, were designed.

- 19) Practical knowledge on Drawing of motif, different floral design in drawing paper, different shapes and their placement process; Introduction to common parts of loom, General idea of different types of fabric; Dyeing of cotton yarn by using direct and reactive dyes by conventional method using different colours in different shades, were also provided in Textile Design and Clothing.
- 20) Vocations relating with the subject were – Textile designer, Fashion designer, Merchandising, Pattern maker, etc.
- 21) In the subject of Garment Designing, theoretical knowledge on Prospect and demand of Garment Making, Equipments, Pattern, Tools & Equipment for hand stitch and ironing, dealing with sewing machines, System of measurement with Measuring Tape, Classification of stitch for different fabrics, etc. were included.
- 22) Practical works on method of cutting, sewing, formation of stitch, etc. were also provided in the subject of Garment Designing.
- 23) Vocations relating to the subject were --- Designer, merchant, pattern maker, etc.
- 24) In the subject of Cane and Bamboo Technology, Units/ chapters like, history of bamboo utilization, quality of bamboo, Vegetative propagation, Commercial Plantation, Harvesting of bamboo, Treatment and preservation of cane and bamboo, etc. were designed. Also facilitated working knowledge of First Aids and description of safe practices on bamboo Processing Workplace.
- 25) The Cane and Bamboo Technology subject provided both theoretical and practical experiences relating to the vocation like bamboo & cane producer, supplier, crafts maker, carpenter, etc.
- 26) In the subject of Home Science, theoretical Units/ chapters, viz. Introduction to Home Science Education, Food and Nutrition, Child Development and Family studies, Clothing and Textile, Family Resource Management were included.

- 27) Practical works on preparation of some dishes and project reports, removal of common stains, Cleaning and polishing of related instruments were included in the subject of Home Science.
- 28) Vocations related with this subject were food preserver, cook man, house keeper, nutritional advisor, etc.
- 29) In Co-curricular activities, Athletics, viz. Outdoor games, In-door Games, Sports -Race, Drills and physical exercise were included. Also includes the Artistic and Cultural Activities, Scientific Activities, Literary Activities and Social Services.
- 30) The Co-curricular activities were helpful for preparing students towards some Vocations, viz. Player, Artist, poet, writer, editor, etc.
- 31) To provide Scouts and Guides was also recommended in the syllabus. If anybody gets highly motivated through this discipline he can prepare himself for a future instructor in this field or prepare himself for defence.

### **5.2.3. PROBLEMS FACED BY SCHOOLS IN IMPLEMENTING VOCATIONAL EDUCATION**

- 1) In majority of schools, vocational education programme was not implemented.
- 2) There was no provision of vocational education except computer education in few schools.
- 3) There was no regular teacher appointed in schools. Few teachers are engaged on contractual basis for computer literacy.
- 4) Vocational stream had been introduced in few selected schools and same was yet to introduce in majority of schools.
- 5) The infrastructural problem of the schools was a prominent issue in implementation of vocational courses. In majority of schools, building accommodation was quite insufficient for students to teach them various subjects.

- 6) In majority of schools, there was no electricity even to run the computers already provided by Government for providing computer education.
- 7) There were no sufficient materials, tools and instruments for imparting and practicing vocational education.
- 8) There was shortage of sufficient fund for introducing different vocational subjects.
- 9) The lack of interest of the students towards some vocational subjects/ courses was also the major problem in implementation of some vocational courses.
- 10) The lack of awareness among the students towards some vocational courses alongwith their future prospects were also the vital issues.
- 11) Few schools had provisions for implementing the vocational courses such as, tailoring, carpenter, art, music and dance etc.
- 12) The fund for vocational education was coming through RMSA to concerned schools, but the funding pattern to schools was quite insufficient and irregular.
- 13) Sometimes, the students desired to take vocational education through different vocational subjects, but due to lack of communication and lack of awareness about such courses, they remained at distance.
- 14) Most of the students were from economically backward families. Although, they did not have economical background for good higher education, they could have vocational education for their future lives in handicrafts, carpentry, handloom textile, etc. But unfortunately, there was no implementation of these courses in many schools.
- 15) There was lack of motivational programmes for students.
- 16) In some cases, it was also a fact that the students as well as their parents were not mentally graded up to accept vocational education.
- 17) The educational administration set-up had not been brought under the scanner in order to determine the factor for lower growth of vocational education. The educational administration required to be treated as an indifferent wing for implementing vocational programmes.

- 18) The demand of vocational education from parents' side and society was also not satisfactory.
- 19) There was a gap between Vocational Education and employment.

#### **5.2.4. MEASURES TO DEVELOP VOCATIONAL INTEREST AMONG THE STUDENTS**

- 1) Necessary importance on vocational education has to be given by the Government at first.
- 2) The systematic introduction, well-planned implementation and execution of vocational education are crucial.
- 3) Vocational education enhances individual employability, reduces the mismatch between the demand and supply of skilled manpower and provides an alternative for those pursuing higher education without particular interest or purpose.
- 4) To some extent, vocational courses failed to attract students with their future prospects. So, all the vocational courses must be job-oriented to motivate the students in this field.
- 5) Vocational courses were diversified to some extent. Some courses were more beneficial, some were less. Courses should be so designed and provided that every student can enroll himself/ herself according to his/her need and choice. These courses must have relationship with vocations.
- 6) Vocational education gives the perfect goal of their individual life of students.
- 7) Vocational education helps students to be practical in their daily life environment.
- 8) Vocational education is essential for self-establishment of the students and can contribute a great deal to minimize unemployment.
- 9) Teaching posts must be created and appointment of teacher must be given to teach and trained in different vocational subjects.

- 10) The Industrial Training Institutes must conform to the larger vocational pattern.
- 11) Vocational education in some subjects like, carpentry, tailoring, cutting-knitting, breeding, etc. are most necessary for backward and rural areas.
- 12) To solve the unemployment problems, the vocational education is very important.
- 13) It is very useful for students who are interested more in practice than theoretical education.
- 14) Vocational education has an important role specially for the students coming from middle and lower class families. Because, Vocational education course is mostly job oriented course.
- 15) The importance of vocational education in present hour is undeniable. The demand of economic security can be fulfilled through vocational education.
- 16) Vocational Education provides knowledge, efficiency and skills required for vocations. So, it is important because after obtaining it one can directly engage himself or herself with certain types of vocations.
- 17) Both the Central and State Governments have to lead the programme. Then school can strive to implement it.
- 18) Awareness camps with family members need to be organized.
- 19) Schools must make vocational education interesting among the students. Students should be made understand how vocational education can make them self-dependent in future.
- 20) The Government, viz. Centre and State both should provide sufficient infrastructure, fund and Teaching Learning material and appoint sufficient trained teachers.
- 21) School can help students by introducing mass-communication, tailoring, carpenter, electrician, some other mechanical subjects for TV repairing, mobile repairing, home appliances repairing, etc.
- 22) In rural areas, there is a demand of vocational education as it is needy and fruitful for the students of that locality.

- 23) Meeting, seminar, workshop, group discussion, street play on vocational education should be organized by schools and local administration.
- 24) Create opportunities for students to get exposed to workshops and industries.
- 25) Motivate students with the world of work where people enjoy economic security due to their competency.
- 26) The students should be demonstrated about various future prospects that vocational education offers.
- 27) Students to be engaged in some manual works, such as gardening, making fencing, preparing bamboo/ wooden crafts within the school or outside the school.
- 28) Periodical visit of students to industries, factories or in mechanical workshops, participatory works with societies, NGOs and self-help groups, etc. can also motivate the students towards vocational courses.
- 29) Schools can select interested students and can give proper guidance.
- 30) Schools may invite exemplary figures benefitted from vocational education in order to inspire the students.
- 31) Schools may play a big role in propagating vocational interest among students by grading up the mindset of the students and changing their outlook.
- 32) Schools can create an enabling atmosphere where vocational education may flourish. Schools may also introduce compulsory classes of vocational education.

#### **5.2.5. MEASURES TOWARDS EFFECTIVE VOCATIONAL GUIDANCE AND COUNSELLING**

- 1) To make vocational education effective, an effective programme of vocational guidance and counseling should be there in the State. A specific need based curriculum should be preferred which will give students opportunities under predetermined conditions for professional growth,

career improvement and lateral entry course of general, technical and professional education through appropriate bridge course.

- 2) By entangling parent, guardian and public, the vocational guidance and counselling programme can be improved.
- 3) In the State, most of the families are economically backward. So to improve the economy, there must have an education system which is directly related to some kind of vocations. By an effective programme of vocational guidance and counseling, students can be assigned suitable vocational courses.
- 4) Awareness programmes are to be organized alongwith workshops, exhibitions, etc.
- 5) Career counseling and guidance programme should be implemented in the secondary schools.
- 6) Schools and local administration should organize meeting, quiz, street play, workshop, etc.
- 7) There should be educational tour to industrial area.
- 8) There should be exposure training programme on vocational courses.
- 9) Students should be provided detailed information on vocational education, its aims, contents and prospects.
- 10) At the same time, there should be some motivational programme.
- 11) There should be uniform guidelines/ policy for the entire state.
- 12) Provision must be there for posting of qualified personnel for Guidance and Counselling in every High and Higher Secondary School of the State. They should have independence for implementing guidance and counselling programme so that students can be traced out properly and they can be suggested, assigned or enrolled for/ in suitable vocation.
- 13) There must be close co-ordination among the counselors of the Schools, so that uniformity can be maintained in the entire State while implementing the guidance and counselling programme considering the uniform policy programme of vocational education.



- 14) Clear provision must be made for sufficient funding to schools for implementing guidance and counselling programme.
- 15) Parental participation and awareness is inevitable while implementing this programme.

### **5.3 DISCUSSION**

Based on data analysis and the findings thereon, the investigator intended to discuss the whole problem under study according to the order of research objectives. The present study was carried out with 5 (five) objectives. Besides, there were 30 (thirty) hypotheses relating to ten vocational fields which had to be tested based on the numerical data.

#### **5.3.1 Objective No. 1 : To Compare the vocational interest, namely, in Literary, Scientific, Executive, Commercial, Constructive, Artistic, Agriculture, Persuasive, Social, House-held fields, between Boys and Girls of Class-IX.**

For comparing the vocational interest in different vocational fields between boys and girls, the investigator had collected relevant information from the represented group of students of Class-IX. For this purpose, students were given 20 (twenty) vocations relating to each vocational field and asked them to choose the vocations according to their likes or dislikes.

The obtained data revealed that there was no higher interest in the Literary field among boys and girls. Only 2 % boys had above average interest against 1 % girls. Similarly, 41 % boys had average interest against 44 % girls. The 22 % boys had below average interest against 22 % girls and 35 % boys showed low interest against 32 % girls. The scores revealed that the major group of students had average interest in the Literary field. There was no significant difference found between the boys and girls irrespective of their locality based on the obtained t-value. In the study conducted by Thakor, H. (2013) also found no significant difference in boys and girls in literary areas whereas in another study conducted

by Jain, K. (1984) found that rural boys had lower literary interests than urban boys.

In Scientific field, only 1 % boys and girls showed high interest. 12 % boys had above average interest against 10 % girls. Again, 46 % boys had average interest against 49 % girls. 19 % boys showed below average interest against 16 % girls and 23 % boys showed low interest against 24 % girls. As per obtained t-value, there was no significant difference found between boys and girls in general in Scientific Interest whereas, significant difference was found between the boys and girls of urban areas in Scientific Interest. Jain, K. (1984) found that the urban boys had higher scientific interests than rural boys. The introverts had higher interests in the literary area than the extroverts. Similarly, the study conducted by Sultana, R. (2001) revealed that majority of girls in the sample group preferred the jobs related to the Scientific field.

Similarly, in Executive field it was found that only 1 % boys and girls showed high interest. 13 % boys showed above average interest against 14 % girls. Majority of student viz. 52 % boys and 51 % showed average interest in Executive field. Another 17 % boys had below average interest against 15 % girls and remaining 17 % boys showed low interest against 19 % girls. There was no significant difference found was found between the boys and girls irrespective of their locality in Executive Interest as per obtained t-value.

The boys and girls were not highly interested in Commercial field as nobody had shown high interest in the study. Only 1 % boys had above average interest against 2 % girls. 40 % boys had average interest against 43 % girls. The 23 % boys had below average interest against 22 % girls and 36 % boys showed low interest against 33 % girls. As per obtained t-value, there was no significant difference found between boys and girls in general whereas, significant difference was found only between the boys and girls of urban areas in Commercial Interest.

In Constructive field, only 1 % girls showed high interest. 2 % boys had above average interest against 6 % girls. Again, 31 % boys had average interest against

37 % girls. The 21 % boys had below average interest against 17 % girls and 46 % boys showed low interest against 39 % girls. As per obtained t-value, there was significant difference found between the boys and girls in general and of rural areas in Constructive Interest. As far as the Artistic field was concerned, only 1 % boys and girls had showed high interest. 9 % boys and 6 % girls had above average interest. Again, 46 % boys had average interest against 43 % girls. The 17 % boys and girls had below average interest. 28 % boys showed low interest against 33 % girls. As per obtained t-value, significant difference was found between boys and girls in general and or rural areas in Artistic Interest.

In Agriculture field, no one showed high interest. Only 2 % boys showed above average interest against 1 % girls. 32 % boys had average interest against 34 % girls. 20 % boys and girls had below average interest. 46% boys showed low interest in Agriculture against 44 % of girls. As per obtained t-value, there was no significant difference found between boys and girls irrespective of their locality in Agriculture Interest.

As far as Persuasive field was concerned, nobody showed high interest. Only 3 % boys showed average interest against 2 % girls. Another 42 % boys showed average interest against 43 % girls. The 20 % boys and girls had below average interest. 35 % boys showed low interest against 34 % girls. In the study conducted by Doobal, S. (2014) found significant mean difference between the Persuasive work interests of students in relation to Gender and Type of family whereas in the same study no significant mean difference was found between the Persuasive work interests of students in relation to Area and Type of family. In the present study, the obtained t-value revealed no significant difference between the boys and girls irrespective of their locality in Persuasive Interest.

Both the boys and girls in Social field did not show high interest. Only 3 % boys and girls had shown above average interest in the field. 37 % boys had average interest against 43 % girls. 21 % boys had below average interest against 16 % girls and 40 % boys showed low interest against 38 % girls. The study conducted by Sultana, R. (2001) revealed that majority of the girls in the sample group

preferred for the jobs which were related to Social field. Thakor, H. (2013), in his study found no significant difference in boys and girls in social field whereas, in the present study, significant difference was found only between the boys and girls of rural areas in Social Interest as per obtained t-value.

In Household field, nobody had shown high interest. Only 6 % boys and girls showed above average interest. 44 % boys had average interest against 43 % of girls. Another 14 % boys had below average interest against 17 % of girls. 36 % boys showed low interest against 33 % of girls. The obtained t-value revealed no significant difference between the boys and girls irrespective of their locality in Household Interest. In the study conducted by Sultana, R. (2001) found that most of the girls in the sample group preferred for the jobs those were related to household.

In the study carried out by Otta, F. E. and others (2012), revealed that the adolescents those had high vocational interest moved towards the scientific, computational, literary, persuasive and social services interest areas. Similarly, the adolescents those had low vocational interest moved towards the mechanical, musical, artistic and outdoor activities.

### **5.3.2. Objective No. 2 : To find out the subjects related to vocations in the present syllabus of Class-IX.**

The obtained data revealed that the subjects viz. Computer Science, Wood Craft, Music, Dance, Fine Art, Agriculture, Textile Design and Clothing, Garment Designing, Cane and Bamboo Technology, Home Science, Co-Curricular Activities, Scouts and Guide were prescribed in the syllabus of Class-IX (for academic session 2014 to 2016). All those subjects were prescribed as optional and found related to different vocations. The Computer Science subject was designed to provide course contents related to vocations viz. Business Analyst, Database Administrator, Games developer, Information System Manager, IT Consultant, Multimedia Programmer, System Analyst, Systems developer, Web designer & developer, etc. The Wood Craft subject was designed to provide

course contents related to vocations viz. carpentry, wood-craft designer, etc. Music subject designed to provide course contents related to vocations viz. Musician, Singer, Songwriter, Music Recorder & Producer, etc. The Dance subject was designed to provide course contents related to vocations viz. Choreographer, dancer, Lighting/ set designer, etc. The Fine Art subject was designed to provide course contents related to vocations viz. Painter, Graphic designer, Artist, Visualizing Professional, Art Professional, Illustrator, Craft Artist, Animator, Lecturer, Art Museum Technician, Art Conservator, Art Director, etc.

Similarly, the Agriculture subject was designed to provide course contents related to vocations viz. Agricultural consultant, Plant breeder, Soil analyst, etc. The Textile Design and Clothing subject was designed to provide course contents related to vocations viz. Textile designer, Fashion designer, Merchandising, Pattern maker, etc. The Garment Designer subject was designed to provide course contents related to vocations viz. Designer, merchant, pattern maker, etc. The Cane and Bamboo Technology subject was designed to provide course contents related to vocations viz. bamboo & cane producer, supplier, crafts maker, carpenter, etc. The Home Science subject was designed to provide course contents related to vocations viz. food preserver, cook man, house keeper, nutritional advisor, etc. The Co-curricular activities may develop skills towards some vocations like as Player, Artist, poet, writer, editor, etc. Through Scouts and Guides, anyone can prepare himself for defence services or a future instructor in this field.

### **5.3.3 Objective No. 3 : To find out the problems faced by schools in implementing Vocational Education**

It was found that vocational education programme was not implemented in majority of schools. There were lots of financial as well as infrastructural problems in schools for implementing vocational education programme. There was no provision of vocational education except computer education in few

schools. Only few teachers were engaged on contractual basis for computer literacy. In the study conducted by Torcato, S (2006) found that there was lack of required infrastructure, shortage of suitable teaching faculty and no timely revision of curriculum, which were responsible to reduce the quality of the course.

In majority of schools, building accommodation was quite insufficient for students to teach them various subjects. There was no electricity even to run the computers already provided by Government for providing computer education. There were no sufficient materials, tools and instruments for imparting and practicing vocational education. In the study conducted by Thongplee, C. (1985) also found that many of the school instructors had complained about the lack of appropriate funds for managing the vocational programmes.

The lack of interest of the students towards some vocational subjects/ courses was also the major problem in implementation of some vocational courses. Mowji, M. N. (1983) in his study pointed out that the syllabuses and books were prepared without taking into consideration interest and level of the students. Sometimes, the students desired to take vocational education through different vocational subjects, but due to availability of limited subjects they remained at distance. There was lack of motivational programmes for students.

The lack of awareness among the students towards some vocational courses alongwith their future prospects were also the vital issues. It was also a fact that the students as well as their parents were not mentally graded up to accept vocational education.

Deshamukhya, M. (1984) in his study argued that the design or types of vocational streams cannot be the same everywhere. On the other hand, in view of the objectives of the secondary curriculum, vocational streams should be developed on the basis of the raw materials available in the locality and their future potentialities leading to some vocations.

#### **5.3.4 Objective No. 4 : To suggest measures to develop vocational interest among the students**

A number of suggestions were given by the Heads of Institutions to develop vocational interest among the students. It is the undeniable fact that vocational education helps the students to be practical in their daily life environment which gives the perfect goal to their individual life. Vocational education enhances individual employability, reduces the mismatch between the demand and supply of skilled manpower and provides an alternative for those pursuing higher education without particular interest or purpose.

From the present study, it was found that the vocational courses, to some extent, failed to attract students with their future prospects. Therefore the vocational courses must be job-oriented or must have practical utility to motivate the students towards this field.

The present study revealed that vocational courses were diversified to some extent. Some courses were more beneficial, some were less. The courses should be so designed and provided that students get enrolled according to their need and choice. Besides, these courses must have relationship with vocations. The study conducted by Deshamukhya, M. L. (1984), established that the design or types of vocational streams in particular cannot be the same everywhere. On the other hand, in view of the objectives of the secondary curriculum, vocational streams should be developed on the basis of the raw materials available in the locality and their future potentialities leading to some vocations.

Hegiste, R. (2011) opined that starting a vocational education course is to control unemployment in the nation. Vocational education enhances individual employability, reduces the mismatch between the demand and supply of skilled manpower and provides an alternative for those pursuing higher education without particular interest or purpose. The systematic introduction, well-planned implementation and execution of vocational education are crucial. The study carried out by Swarnalata, E, (1993) found greater demand on Vocationalization

of education. But from the findings of the present study, it was revealed that necessary importance on vocational education was not given in implementation level.

To some extent, vocational courses failed to attract students with their future prospects. Torcato, S. (2006) in his study found that the vocational pass outs lack confidence in getting employed after completion of their course due to lack of proper entrepreneurship development classes and this diverts them to higher education. So, all the vocational courses must be job-oriented to motivate the students in this field. Besides, vocational courses should be so designed and provided that every student can enroll himself/ herself according to his/her need and choice. John Mary (1981) in his study found that vocational interests of adolescents were directly related to their socioeconomic status and the lower income group adolescents evidenced higher interest in scientific pursuits than the institutionalized.

The present study laid stress upon vocational education which gives the perfect goal of individual life of students. It helps students to be practical in their daily life environment and is essential for their self-establishment that can contribute a great deal to minimize unemployment.

Teaching posts must be created and appointment of teacher must be given to teach and trained in different vocational subjects. Schools must make vocational education interesting among the students. Students should be made understand how vocational education can make them self-dependent in future because, it is need based. Besides, vocational education in some subjects like, carpentry, tailoring, cutting-knitting, breeding, etc. are mostly necessary for backward and rural areas.

V. Dhamankar (1985) in his study found that though technical skills given in the ITIs were enough for self-employment, such an endeavour required for propagating additional human skills which were not provided in ITIs.



The importance of vocational education in present hour is undeniable. The demand of economic security can be fulfilled through vocational education. It has an important role specially for the students coming from middle and lower class families. Vocational education is found helpful for generating employment and reducing un-employment problems.

The Central and State Governments must provide sufficient infrastructure, fund and Teaching Learning material and appoint sufficient trained teachers. Meeting, seminar, workshop, group discussion, street play on vocational education should be organized by schools and local administration for attracting students' interest towards vocational education. Schools may also invite exemplary figures benefitted from vocational education in order to inspire the students. There is a demand for introduction of compulsory classes of vocational subjects in the schools.

#### **5.3.5 Objective No. 5 : To suggest measures towards effective vocational guidance and counselling**

From the obtained data, it was revealed that provisions were made for providing guidance services under the vocational education programme, but it can be evaluated or termed as sound only upon receipt of its outputs. M. N. Mowji (1983) in his study pointed out that the Junior college students faced educational and vocational problems. They had to face difficulties due to absence of guidance at school and college level. To make vocational education effective, an effective programme of vocational guidance and counseling should be there in the State where most of the families are economically backward. So to improve our economy, there must have an education system which is directly related to some kind of vocations. By an effective programme of vocational guidance and counseling, students can be assigned to proper vocational courses.

Career counseling and guidance programme should be implemented in every secondary school. Students should be provided detailed information on vocational

education, its aims, contents and prospects. There should be uniform guidelines/ policy for the entire state.

The study conducted by B. Dasgupta (1972) revealed that the school guidance services needed more social acceptance and a large number of guardians were quite guidance conscious. Pupils needed to be provided with wider programmes of co-curricular activities. At the same time, the Career- masters required more time for guidance work.

For operation of effective vocational guidance and counselling programme, clear provision must be there with the States for sufficient funding to schools for implementing guidance and counselling programme. In the study conducted by Gupta, S. R. (1985) also found that a large number of the counsellors did not have sufficient physical facilities in the schools, for example, separate rooms for counselling, for test materials as well as for displaying the materials. The study revealed that no follow-up guidance programme was being implemented because most of the counsellors did not receive full cooperation from students and guidance functionaries in the school. The counsellors' major problem was lack of cooperation from principals, teachers and parents.

Provision must be there for posting of qualified personnel in this profession in every High and Higher Secondary School of the State. Providing independence to such personnel to implement such programme so that students can be traced out properly and they can be suggested for, assigned or enrolled in suitable vocation. There must be close co-ordination among the counselors of the Schools. Parental participation and awareness is inevitable while implementing such programme.

#### **5.4 RECOMMENDATIONS**

On the basis of the findings of the study and the insight drawn from conducting the study, the following recommendations are given for promotion and betterment

of vocational education and to improve the vocational interest of the children with the help of guidance and counselling programme, -

- 1) Interest in Literary field among boys and girls is required to be developed as one third of the students had low interest in this field.
- 2) Effort should be made to motivate the students towards Executive field.
- 3) Interest of boys and girls in Scientific field was not satisfactory. Majority of students had only average interest in Scientific field. So, more students should be motivated towards the field.
- 4) Interest towards Commercial field was very poor, which should be enhanced by introducing the students to this broader work-field where anyone can work independently with his own quality.
- 5) Effort should be made to develop interest in Constructive field.
- 6) Towards Artistic field, students' interest was not so bad. Little effort is required for motivating the students.
- 7) In Agricultural field, students' interest was very poor and great effort should be made to develop the same.
- 8) Majority of students showed average interest in Persuasive field; so the students' in this field is required to be developed as far as possible.
- 9) In social field, students' interest was quite low and it should be the great concern in emergent society. Students must be attracted towards this field.
- 10) Similarly in House-held field also, students' interest was very low. Effort should be made to develop the students' interest in such fields.
- 11) In the present syllabus of Class-IX, some important subjects are provisioned for the students. But, those subjects should be provided as compulsory subjects, not as elective or optional subjects.
- 12) Few subjects of Class-IX which are related to different vocations can be re-designed by synthesizing and comprising two or more similar subjects related to similar type of vocation. For example, Music and dance can be designed as one subject, Textile Design and Clothing be comprised with Garment Designing, etc.

- 13) More subjects related to the vocations like, Gardener, Housekeeper, Breeder, Welder, Tailor, Electrician, Plumber, Photographer, Farmer, Driver, etc. may also be designed and facilitated to the students.
- 14) Vocational Education programme should be implemented in every school from the secondary stage.
- 15) Sufficient trained teachers should be recruited on regular basis.
- 16) Sufficient infrastructural support including accommodation, electrification and raw materials should be provided to all the needy schools.
- 17) For smooth implementation and running of the vocational education programme, sufficient fund should be earmarked both by the Central and State Governments.
- 18) The lack of interest of students in some vocational subjects/ courses is one of the major problems while implementation of such vocational courses. More vocational courses should be designed and provisioned in every school keeping in view the diversified need and interest of the students.
- 19) If required, stipend may also be provided at initial stage to the students for attracting them towards vocational course. One portion of such stipend may also be realized by selling the end products of the students.
- 20) Mass awareness programme should be launched about different vocational courses alongwith their future prospects both for parents and students.
- 21) Every effort must be made by the Govt. to minimize the existing gap between Vocational Education and employment.
- 22) The Industrial Training Institutes must conform to the larger vocational pattern.
- 23) Meeting, seminar, workshop, group discussion, street play on vocational education should be organized by schools and local administration.
- 24) Steps should be taken to motivate the students towards the world of work where people enjoy economic security due to their competency.
- 25) Tour programmes should be arranged by the Educational Administration/ schools to visit students in industries, factories or mechanical workshops.
- 26) Programmes should be organized for participatory works with societies.

- 27) The role of NGOs and self-help groups can't be denied as those can also play vital role for motivating the students towards vocational courses.
- 28) Schools may invite exemplary figures benefitted from vocational education in order to inspire the students.
- 29) Special importance should be given for providing vocational guidance and counselling to the students.
- 30) Schools and local administration should organize meeting, quiz, street play, workshop, etc.
- 31) There should be a uniform guidelines/ policy for the entire state.
- 32) Recruitment of qualified Vocational Counsellors in every High and Higher Secondary School is compulsory to counsel and trace out students properly, to suggest, assign and enroll them in suitable vocation.
- 33) There must be a close co-ordination among the counselors of the Schools.
- 34) Clear provision must be there for sufficient funding to schools for implementing guidance and counselling programme.
- 35) Parental participation and awareness is inevitable while implementing all programmes relating to vocational education.

## **5.5 CONCLUSION**

With the predetermined goals and objectives, whole study was carried out following appropriate research methodology and procedure. The study was purely descriptive in nature. Since the study dealt with both qualitative and quantitative data, to some extent data triangulation was taken place.

From quantitative data analysis, it was found that there were no significant differences in the interest shown between boys and girls in many vocational fields. On the other hand, it was seen that there were little differences between boys' and girls' interests in some other vocational fields. The study conducted by Thongplee, C. (1985) revealed that the majority of learners had joined the

vocational courses for better utilization of their leisure, because of interest in the courses and to supplement their income. From the present study, it was revealed that students had little interest in some important vocational fields which are related to their day to day life and have relevance to the society.

Regarding availability of vocational subjects, it is pertinent to mention that sufficient numbers of subjects related to vocations were prescribed for in the present syllabus of Class-IX. In addition to that during 2016, 6 (six) vocational subjects were introduced in the syllabus of Class-IX by adding and renaming the existing few subjects under National Skill Qualification Framework. More secondary schools were being granted for introducing vocational stream. Besides, the Government was consistently engaging in searching out more job roles in various sectors by playing participatory roles. Still, from the study it was revealed that there was shortfall in the present vocational courses to equip the students with some specific kinds of skills relevant to their day to day life and which have links with vocations. Even the courses were not fully able to cater the diverse need and interest of the students.

Regarding problems of schools, it was found that many schools had no infrastructure for providing vocational education. There were no trained teachers, no funding, no electrification except few schools, any tools and apparatus etc. Moreover, there was lack of interest among the students and parents for obtaining vocational education.

Considering the urgency of vocational education in the prevailing socio-economic scenario of Lakhimpur District especially in rural and sub-urban areas, effort must be made to facilitate diversified and need-based vocational courses to the students from the secondary level. For making vocational education successful, students' participation in such courses is a must. The Government should take initiative for motivating the students towards these courses. Engagement of Counsellor in

every school should be made mandatory for tracing out the students' interests and to assign them suitable vocational subjects according to their choice and interest.

To make vocational courses more interesting for the students, mass advertising regarding its advantages need to be launched to familiar those courses among the parents and students. The NGOs and self-help groups may also be taken into account as a part of the mission. Meanwhile, proper policy programme needs to be adopted to reduce the gap between vocational education and employment by linking the course contents with the skills that have demands in present job market.

## **5.6 SUGGESTIONS FOR FURTHER RESEARCH**

- 1) Students' interest toward different courses/ subjects relating to vocations needs to be identified.
- 2) Factors relating to vocational teachers such as, their recruitment, position and status, motivation and job satisfaction, training, etc. need to be studied.
- 3) Issues relating to Counsellors like, their recruitment, position and status, motivation and job satisfaction, training, etc. need to be studied.
- 4) Plans and Policies relating to the vocational education needs to analysed and reviewed from time to time.
- 5) Vocational Interest Testing tools need to be developed in all Regional languages especially for the Secondary and Higher Secondary level students.
- 6) Role of vocational education towards employment generation and economic development needs to be studied.

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# APPENDIX - I

## VOCATIONAL INTEREST RECORD



T. M. Regd. No. 564838  
Copyright Regd. No. © A-73256/2005 Dt. 13.5.05

S. P. Kulshrestha (Dehradun)

Consumable Booklet

of

VIR-K

(English Version)

**Please fill up the following informations :—**

Name \_\_\_\_\_

Age \_\_\_\_\_ Sex \_\_\_\_\_ Class \_\_\_\_\_

Name of the School \_\_\_\_\_

Occupation of Father \_\_\_\_\_ Monthly Income \_\_\_\_\_

Rural / Urban \_\_\_\_\_ Date \_\_\_\_\_

### INSTRUCTIONS

1. The main objective of this inventory is to know your vocational interest so that you can be guided for your vocation.
2. Two vocations are mentioned in each box of this inventory. You can mention your choice from the two vocations given in each box, keeping in view their salary, prestige and future. You have to mark your vocational choice in the following way :

(a) If you like first vocation of the box, then make a tick mark

☒ against No. 1 in the box e.g.,

(b) If you like second vocation of the box, then make a tick mark ☒ against No. 2 in the box e.g.,

(c) If you like both vocations of the box, then make a tick mark ☒ against both the Nos. 1 and 2 in the box e.g.,

(d) If you dislike both vocations of the box, then make a cross mark ☒ against both the Nos. 1 and 2 e.g.,

<input checked="" type="checkbox"/> 1	Botanist
Atomic Scientist 2 <input type="checkbox"/>	
<input type="checkbox"/> 1	Electrical Engineer
Army Officer 2 <input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> 1	Fashion Designer
Horticulturist 2 <input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> 1	Advocate
Music Director 2 <input checked="" type="checkbox"/>	

In this way you have to mark your like / dislike regarding the vocation of each box and have to leave no box blank. If you have any doubt in this respect, please ask.

3. Though there is no time-limit for this inventory even then answer quickly. Usually 7 to 10 minutes are required to complete this.
4. After marking your vocational choice of every box return this inventory record.

**Now open the page and start your work!**

Estd. 1971

☎ : (0562) 2464926

**NATIONAL PSYCHOLOGICAL CORPORATION**

**4/230, KACHERI GHAT, AGRA-282 004 (INDIA)**

# VOCATIONAL INTEREST

AREA	L <sub>1</sub> ↓	SC <sub>1</sub> ↓	E <sub>1</sub> ↓	C <sub>1</sub> ↓	CO <sub>1</sub> ↓
	<input type="checkbox"/> 1 Magazine Editor	<input type="checkbox"/> 1 Scientist	<input type="checkbox"/> 1 City Magistrate	<input type="checkbox"/> 1 Typist	<input type="checkbox"/> 1 Paper flower Maker
→ L <sub>2</sub>	<input type="checkbox"/> Historian 2	<input type="checkbox"/> Poet 2	<input type="checkbox"/> Novelist 2	<input type="checkbox"/> Script Translator 2	<input type="checkbox"/> Anthologist 2
	<input type="checkbox"/> 1 Language Translator	<input type="checkbox"/> 1 Doctor	<input type="checkbox"/> 1 Judge Secretary	<input type="checkbox"/> 1 Private	<input type="checkbox"/> 1 Ironsmith
→ SC <sub>2</sub>	<input type="checkbox"/> Mechanical Engineer 2	<input type="checkbox"/> Chemical Engineer 2	<input type="checkbox"/> Veterinary Doctor 2	<input type="checkbox"/> Vaccinator 2	<input type="checkbox"/> Chemist 2
	<input type="checkbox"/> 1 Reviewer	<input type="checkbox"/> 1 Civil Engineer Superintendent	<input type="checkbox"/> 1 Police	<input type="checkbox"/> 1 Shop-keeper Foreman	<input type="checkbox"/> 1 Workshop
→ E <sub>2</sub>	<input type="checkbox"/> Industry Manager 2	<input type="checkbox"/> Honorary Magistrate 2	<input type="checkbox"/> Army Officer 2	<input type="checkbox"/> Crew-Captain 2	<input type="checkbox"/> Deputy Collector 2
	<input type="checkbox"/> 1 Journalist	<input type="checkbox"/> 1 Health Officer	<input type="checkbox"/> 1 Hotel Manager	<input type="checkbox"/> 1 Company Accountant	<input type="checkbox"/> 1 White-Washman
→ C <sub>2</sub>	<input type="checkbox"/> Steno 2	<input type="checkbox"/> Proof-reader 2	<input type="checkbox"/> Draftman 2	<input type="checkbox"/> Income-Tax Officer 2	<input type="checkbox"/> Type Instructor 2
	<input type="checkbox"/> 1 Poet	<input type="checkbox"/> 1 Compounder	<input type="checkbox"/> 1 Governor	<input type="checkbox"/> 1 Ticket-Collector	<input type="checkbox"/> 1 Radio Mechanic
→ CO <sub>2</sub>	<input type="checkbox"/> Wooden Toy Maker 2	<input type="checkbox"/> Spinner 2	<input type="checkbox"/> Weilder 2	<input type="checkbox"/> Goldsmith 2	<input type="checkbox"/> Carpenter 2
	<input type="checkbox"/> 1 Literary Writer	<input type="checkbox"/> 1 Astrologer	<input type="checkbox"/> 1 School Inspector	<input type="checkbox"/> 1 Accountant	<input type="checkbox"/> 1 Dyer
→ A <sub>2</sub>	<input type="checkbox"/> Singer 2	<input type="checkbox"/> Radio Singer 2	<input type="checkbox"/> Manufacturer of Musical Instruments 2	<input type="checkbox"/> Flute-Player 2	<input type="checkbox"/> Music Director 2
	<input type="checkbox"/> 1 Linguist	<input type="checkbox"/> 1 Atomic Scientist	<input type="checkbox"/> 1 Education Director	<input type="checkbox"/> 1 Shorthand Teacher	<input type="checkbox"/> 1 Teacher of Creative Arts
→ AG <sub>2</sub>	<input type="checkbox"/> Agro-teacher 2	<input type="checkbox"/> Nursery-preparer 2	<input type="checkbox"/> Manure Manufacturer 2	<input type="checkbox"/> Irrigator 2	<input type="checkbox"/> Breeder 2
	<input type="checkbox"/> 1 Dramatist	<input type="checkbox"/> 1 Medical Representative	<input type="checkbox"/> 1 District Magistrate	<input type="checkbox"/> 1 Commerce Teacher	<input type="checkbox"/> 1 Book-binder
→ P <sub>2</sub>	<input type="checkbox"/> Advertisement Manager 2	<input type="checkbox"/> Publicist 2	<input type="checkbox"/> Election Contestant 2	<input type="checkbox"/> Social Reformer 2	<input type="checkbox"/> Insurance Officer 2
	<input type="checkbox"/> 1 Epic Writer	<input type="checkbox"/> 1 Botanist	<input type="checkbox"/> 1 Principal	<input type="checkbox"/> 1 Ledger Keeper	<input type="checkbox"/> 1 Washerman
→ S <sub>2</sub>	<input type="checkbox"/> Doctor Serving Free 2	<input type="checkbox"/> Philanthropist 2	<input type="checkbox"/> Social Worker 2	<input type="checkbox"/> Patron of Poor Pupils 2	<input type="checkbox"/> Volunteer 2
	<input type="checkbox"/> 1 Language Teacher	<input type="checkbox"/> 1 Science Teacher	<input type="checkbox"/> 1 Tehsildar	<input type="checkbox"/> 1 Treasurer	<input type="checkbox"/> 1 Workshop Mechanic
→ H <sub>2</sub>	<input type="checkbox"/> Expert in Cooking 2	<input type="checkbox"/> Embroider 2	<input type="checkbox"/> Tailor 2	<input type="checkbox"/> Scholar of Home Science 2	<input type="checkbox"/> Nursing Enthusiast 2
TOTAL	L <sub>1</sub> =	SC <sub>1</sub> =	E <sub>1</sub> =	C <sub>1</sub> =	CO <sub>1</sub> =



## RECORD ( V I R )

$A_1 \downarrow$	$AG_1 \downarrow$	$P_1 \downarrow$	$S_1 \downarrow$	$H_1 \downarrow$	TOTAL
<input type="checkbox"/> 1 Musician  Literature Researcher 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Gardener  Drama Adjudicator 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Ambassador  Literary Writer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Scout  Story Writer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Home-Science Teacher  Critic 2 <input type="checkbox"/>	$L_2 =$
<input type="checkbox"/> 1 Painter  Surgeon 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Farmer  Overseer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Advocate  Chemical Manufacturer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Village Level Worker  Scientific Apparatus Manufacturer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Home Manager  Electrical Engineer 2 <input type="checkbox"/>	$SC_2 =$
<input type="checkbox"/> 1 Cartoonist Husbander  Probation Officer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Animal Agent  President 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Insurance  Lt. Governor 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Social Reformer Budget  Hospital Superintendent 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Maker of Home  Mayor of Corporation 2 <input type="checkbox"/>	$E_2 =$
<input type="checkbox"/> 1 Teacher of Fine Arts  Business Agent 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Agriculture  Salesman 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Politician Inspector  Cash-book Writer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Red-Cross Worker  Business Manager 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Teacher of Arts & Crafts  Steno-typist 2 <input type="checkbox"/>	$C_2 =$
<input type="checkbox"/> 1 Painter  Watch Mechanic 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Seedstore Officer  Knitter 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Religious Preacher  Book Binder 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Famine Reliever  Small-scale Unit Manufacturer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Home Decorator  Potter 2 <input type="checkbox"/>	$CO_2 =$
<input type="checkbox"/> 1 Photographer  Film Artist 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Soil Specialist  Fashion Designer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Village Sarpanch  Stage Director 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Patron of Dumb and Deaf  Artist 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Caretaker of Children  Art Critic 2 <input type="checkbox"/>	$A_2 =$
<input type="checkbox"/> 1 Dancer  Veterinary Doctor 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Manure Specialist  Horticulturist 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Teacher  Agriculture Student 2 <input type="checkbox"/>	<input type="checkbox"/> 1 First Aid Doctor  Worker of Agriculture Co-operative Dairyman 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Manufacturer of Marmalades  Society 2 <input type="checkbox"/>	$AG_2 =$
<input type="checkbox"/> 1 Sculpturist  Advertisement Writer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Agro-Researcher  Order Booker 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Tourist Guide  Vocational Counsellor 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Welfare Committee Worker  Politician Lecturer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Nurse  Innovative Ideas Publicist 2 <input type="checkbox"/>	$P_2 =$
<input type="checkbox"/> 1 Playback Singer  Guide 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Tractor Driver  Soldier 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Contractor  Philanthropist 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Free Medicine Distributor  Volunteer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Home-Science Researcher  Servant 2 <input type="checkbox"/>	$S_2 =$
<input type="checkbox"/> 1 Art Centre Director  Dancer 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Poultryman  Home Science Student 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Sales Manager  Home Manager 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Honorary Teacher  Family Doctor 2 <input type="checkbox"/>	<input type="checkbox"/> 1 Tailor  Expert in Household Art 2 <input type="checkbox"/>	$H_2 =$
$A_1 =$	$AG_1 =$	$P_1 =$	$S_1 =$	$H_1 =$	

**RAW SCORES OF DIFFERENT AREAS OF INTEREST**

Different Areas	L		SC		E		C		CO		A		AG		P		S		H	
	L <sub>1</sub>	L <sub>2</sub>	SC <sub>1</sub>	SC <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	CO <sub>1</sub>	CO <sub>2</sub>	A <sub>1</sub>	A <sub>2</sub>	AG <sub>1</sub>	AG <sub>2</sub>	P <sub>1</sub>	P <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	H <sub>1</sub>	H <sub>2</sub>
Raw Scores																				

**PROFILE**

Stanine	Interest area → Interest group ↓	Raw Scores	L	SC	E	C	CO	A	AG	P	S	H
IX	High Interest	20	•	•	•	•	•	•	•	•	•	•
		19	•	•	•	•	•	•	•	•	•	•
		18	•	•	•	•	•	•	•	•	•	•
VIII VII	Above Average Interest	17	•	•	•	•	•	•	•	•	•	•
		16	•	•	•	•	•	•	•	•	•	•
		15	•	•	•	•	•	•	•	•	•	•
		14	•	•	•	•	•	•	•	•	•	•
VI V IV	Average Interest	13	•	•	•	•	•	•	•	•	•	•
		12	•	•	•	•	•	•	•	•	•	•
		11	•	•	•	•	•	•	•	•	•	•
		10	•	•	•	•	•	•	•	•	•	•
		9	•	•	•	•	•	•	•	•	•	•
		8	•	•	•	•	•	•	•	•	•	•
		7	•	•	•	•	•	•	•	•	•	•
III II	Below Average Interest	6	•	•	•	•	•	•	•	•	•	•
		5	•	•	•	•	•	•	•	•	•	•
		4	•	•	•	•	•	•	•	•	•	•
I	Low Interest	3	•	•	•	•	•	•	•	•	•	•
		2	•	•	•	•	•	•	•	•	•	•
		1	•	•	•	•	•	•	•	•	•	•
		0	•	•	•	•	•	•	•	•	•	•

**(A) GENERAL REPORT**

1. Main interest-area
2. Second interest-area
3. Third interest-area
4. Least interest-area

**(B) SPECIAL REPORT**

1. High interest
2. Interest above average
3. Average interest
4. Interest below average
5. Low interest



## **APPENDIX – II**

### **INTERVIEW SCHEDULE**

ON  
VOCATIONAL INTEREST & VOCATIONAL EDUCATION

**Research Objectives :**

- A) To find out the problems faced by schools in implementing vocational education.**
- B) To suggest measures to develop vocational interest among the students.**
- C) To suggest measures towards effective vocational guidance & counselling.**

- i) Name of the School :
- ii) Name of the Head of Institution (Respondent) :
- iii) Name of the Locality :
- iv) Name of the Tehsil/ Taluka/ Block :
- v) Name of the District :
- vi) Date of Interview (dd/mm/yyyy) :
- vii) Time of starting the Interview :

**INVESTIGATOR'S INTRODUCTION AND THE STATEMENT OF INFORMED CONSENT**

*My name is ..... and I have come from Department of Education, Nagaland University. I am doing a comparative study on Vocational Interest of Class-IX Students of Lakhimpur District of Assam, leading to the Ph.D. Degree in the field of Education. According to my research requirement, I am collecting data from all the Heads of selected Secondary Schools of Lakhimpur District of Assam. The data will be used for analysis of my research study only.*

*This is an independent study done under my academic department and it is not related to any other agency. The information whatever you provide, will be kept strictly confidential.*

*The Interview takes time usually 40 to 45 minutes to complete. Though the participation in this Interview is voluntary, but your participation is considered as important. Please spare some time.*

- viii) Now, may I begin the Interview ?                      Yes/ No      (to be replied by the respondent)

<b>Question Serial No.</b>	<b>Questions under three main Heads, viz. under A, B &amp; C</b>	
	<b>A</b>	<b>Problems faced by schools in implementing vocational education –</b>
<b>1</b>	i.	What are the Infrastructural Problems faced by your School in implementing Vocational Education ?
<b>2</b>	ii.	Are there any Posts/ Positions for Vocational Teacher in your School ? If yes, is it filled ?
<b>3</b>	iii.	Is there sufficient fund for implementing Vocational Education Programmes ? Any specific problems relating to funding ?
<b>4</b>	iv.	In general, what are the issues being faced by your School in the area of Vocational Education?
	<b>B</b>	<b>To develop vocational interest ---</b>
<b>5</b>	i.	In your opinion, are the vocational courses diversified enough to cater to the diverse needs of students ?
<b>6</b>	ii.	What is the need and importance of Vocational Education in your opinion ?
<b>7</b>	iii.	Please suggest some steps through which schools can help familiarize students with the world of work ?
<b>8</b>	iv.	What steps can be taken by schools to develop vocational interest of students ?
	<b>C</b>	<b>Measures towards effective vocational guidance &amp; counselling ---</b>
<b>9</b>	i.	Is there a Sound Policy of Vocational Guidance and Counselling in your State ?
<b>10</b>	ii.	Is there any position of Guidance Counsellor in your school ? If yes, is it filled ?
<b>11</b>	iii.	Please suggest some measures for an Effective Programme of Vocational Guidance and Counselling in the State.

## **APPENDIX – III**

### **SYLLABUS REVIEW CHECKLIST**

- 1) Title of the Syllabus :
- 2) Agency which has prescribed the Syllabus :
- 3) Grade/ Class for which the Syllabus is prescribed :
- 4) Year for which the Syllabus is prescribed :
- 5) The Number of Subjects which are  
related to vocations :
- 6) The Names of Subjects which are  
related to vocations :
- 7) The contents of the subjects which are  
related to various vocations including  
both the Theoretical and Practical Components :

## APPENDIX - IV

### LIST OF ALL RURAL SECONDARY/ HIGHER SECONDARY SCHOOLS UNDER THE STUDY

Selected for Sample	School Code	School Name	Block Name	School Management	School Category
	1	<a href="#">2 NO. LALPANI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	2	<a href="#">ACHARKATA BALUAN HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	3	<a href="#">ADIBASI JUNUBASTI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
Y	4	<a href="#">ALL ASSAM MIRI HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Up. Pr. Secondary and Hr. Sec
	5	<a href="#">ALL ASSAM RESIDENTIAL HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	6	<a href="#">AMTALA HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	7	<a href="#">ANGARKHOWA CHARIALI HIGH SCHOOL</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	8	<a href="#">ANIRUDHADEV BAHGARAH DEURI HSS</a>	BIHPURIA	Deptt Of Edn, Assam	Up. Pr. Secondary and Hr. Sec
Y	9	<a href="#">AVANARI JANAJATI HS</a>	BORDOLONI	Deptt Of Edn, Assam	Upper Pr. and Secondary
	10	<a href="#">AVONORI RUAD HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	11	<a href="#">BADATI JANAJATI HIGH SCHOOL</a>	BIHPURIA	Deptt Of Edn, Assam	Secondary Only
	12	<a href="#">BADHAKARA HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	13	<a href="#">BAGALIJAN HIGH SCHOOL</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	14	<a href="#">BAHNPARA HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
Y	15	<a href="#">BALIPATHER ANCHALIK HIGH SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	16	<a href="#">BANDERDEWA HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	17	<a href="#">BATAMARI GIRLS' HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
Y	18	<a href="#">BECHAMUKH CHARIALI HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	19	<a href="#">BHASKAR HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	20	<a href="#">BHATI MEDAK KONENG HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	21	<a href="#">BHILAIMORA HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	22	<a href="#">BHIMBOR DEURI GIRLS' HS</a>	BIHPURIA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	23	<a href="#">BHUMAJARANI HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	24	<a href="#">BISHNU JYOTI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	25	<a href="#">BOCHA GAON HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
Y	26	<a href="#">BOGINADI GIRLS HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	27	<a href="#">BOGINADI HSS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	28	<a href="#">BOKANOLA HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	29	<a href="#">BONGALMORA HSS</a>	BIHPURIA	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	30	<a href="#">BORBALI GIRLS HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	31	<a href="#">BORCHAPARI BALIBHETA HIGH SCHOOL</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	32	<a href="#">BORDOIBAM HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	33	<a href="#">BORDUBI JANAJATI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
Y	34	<a href="#">BORKHA BAGHMARA HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	35	<a href="#">BORKHET MOTIA HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
Y	36	<a href="#">BRAHMAPUTRA COLLEGIATE GIRLS' HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Secondary Only
	37	<a href="#">CHAKULI HS</a>	BORDOLONI	Deptt Of Edn, Assam	Upper Pr. and Secondary
	38	<a href="#">CHAMAGURI JANAJATI HIGH SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	39	<a href="#">CHENGELUAN HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	40	<a href="#">CHILARAI HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
Y	41	<a href="#">DADHARA SANKARDEV HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	42	<a href="#">DAFALAKATA JANAJATI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	43	<a href="#">DAKHIN CHAPORI HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	44	<a href="#">DAKHIN CHARIKARIA HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	45	<a href="#">DAKHIN DHALPUR GIRLS HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	46	<a href="#">DAKHIN GHILAMARA HS</a>	BORDOLONI	Deptt Of Edn, Assam	Upper Pr. and Secondary
	47	<a href="#">DAKHIN TEHLI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
Y	48	<a href="#">DANGDHARA HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	49	<a href="#">DEBESUTHAN JANAJATI HS</a>	BIHPURIA	Deptt Of Edn, Assam	Secondary Only
	50	<a href="#">DEBIRAM PANGING HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	51	<a href="#">DEOTOLA HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
Y	52	<a href="#">DHALPUR ACADEMY HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	53	<a href="#">DHALPUR HSS</a>	NARAYANPUR	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	54	<a href="#">DHARAMGARH SEWASHRAM HIGH SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	55	<a href="#">DHENUKHANA BOYS HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Secondary Only
	56	<a href="#">DHENUKHANA HSS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	57	<a href="#">DHUNAGURI HS</a>	BIHPURIA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	58	<a href="#">DIGHALI PUKHURI TRIBAL HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
Y	59	<a href="#">DIHIRI HIGH SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	60	<a href="#">DIRGHA MAJGAON HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	61	<a href="#">DONGIBIL HS</a>	BIHPURIA	Deptt Of Edn, Assam	Secondary Only
	62	<a href="#">DONYI POLO HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	63	<a href="#">DOULATPUR HSS</a>	BIHPURIA	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec

	64	<a href="#">DR. B.R. AMBEDKAR GIRLS' HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	65	<a href="#">DUBI HS</a>	BIHPURIA	Deptt Of Edn, Assam	Secondary Only
	66	<a href="#">GAGALDUBI JANAJATI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
Y	67	<a href="#">GANDHIA HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Secondary Only
	68	<a href="#">GHAGARMUKH HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	69	<a href="#">GHILAMARA HS</a>	BORDOLONI	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	70	<a href="#">GHILAMARA PUBLIC HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	71	<a href="#">GHILAMARA TOWN HS</a>	BORDOLONI	Deptt Of Edn, Assam	Upper Pr. and Secondary
	72	<a href="#">GHUNASUTI GIRLS HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
Y	73	<a href="#">GHUNASUTI HIGH SCHOOL</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	74	<a href="#">GOHAIN KAMAL HSS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary with Hr. Secondary
	75	<a href="#">GOHAIN PUKHURI HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	76	<a href="#">GOREHOGA BAHPATI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	77	<a href="#">GOREHOGA HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	78	<a href="#">HARHI GIRLS' HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	79	<a href="#">HARHI HSS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	80	<a href="#">HARMOTI HSS</a>	BIHPURIA	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
Y	81	<a href="#">HARMOTI PICHALA HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
Y	82	<a href="#">HAWAJAN ACADEMY</a>	NARAYANPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	83	<a href="#">INDIRA GANDHI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
Y	84	<a href="#">JAMUGURI CHARIALI HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Secondary Only
Y	85	<a href="#">JANA PRIYA HIGH SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	86	<a href="#">JANAKALYAN ADARSHA HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	87	<a href="#">JANAKALYAN HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	88	<a href="#">JAWAHARIYOTI HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	89	<a href="#">JENGRAI SINGIMARI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	90	<a href="#">JOYPUR PICHALA HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
Y	91	<a href="#">JUGISUTI TRIBAL HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	92	<a href="#">K.K.GIRLS HS</a>	BORDOLONI	Deptt Of Edn, Assam	Upper Pr. and Secondary
	93	<a href="#">KACHUA MULTIPURPOSE HIGH SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
Y	94	<a href="#">KADAM HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	95	<a href="#">KADAM MULAGABHARU HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	96	<a href="#">KAKOI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	97	<a href="#">KAKOI RAJGARH HIGH SCHOOL</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	98	<a href="#">KALAGURU BISHNURABHA HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	99	<a href="#">KALAKHOWA ADARSHA HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	100	<a href="#">KAPAK CHAPORI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
Y	101	<a href="#">KATHALPARA HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	102	<a href="#">KATORI CHAPORI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	103	<a href="#">KEKURI BILLAM HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	104	<a href="#">KEKURI GIRLS HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	105	<a href="#">KEKURI TRIBAL HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	106	<a href="#">KEKURI UNITED HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	107	<a href="#">KHAJUA PATIR TRIBAL HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	108	<a href="#">KHERAJKHAT COLLEGIATE HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
Y	109	<a href="#">KHERKATA HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	110	<a href="#">KHERKATAMUKH KONENG HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	111	<a href="#">KHORA HSS</a>	BIHPURIA	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	112	<a href="#">KRISHNA BIDYAPITH HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	113	<a href="#">LAKHIMI GIRLS HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
Y	114	<a href="#">LAKHIMPUR COLLEGIATE HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	115	<a href="#">LAKHIMPUR HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	116	<a href="#">LALUK ACADEMY HS</a>	BIHPURIA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	117	<a href="#">LALUK HSS</a>	BIHPURIA	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	118	<a href="#">LEONG HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	119	<a href="#">LIHAK DEURI HIGH SCHOOL</a>	BIHPURIA	Deptt Of Edn, Assam	Secondary Only
	120	<a href="#">LILABARI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
Y	121	<a href="#">LUITPORIA MISSING HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	122	<a href="#">MADHAB DEV HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
Y	123	<a href="#">MADHABDEV COLLEGIATE H.S SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary with Hr. Secondary
	124	<a href="#">MADHABDEV HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Secondary Only
	125	<a href="#">MADHYA RONGANADI JANAJATI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	126	<a href="#">MADHYA SUBANSIRI HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	127	<a href="#">MADHYA TEHLA HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	128	<a href="#">MAGHNOWA HIGH SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	129	<a href="#">MAGHUACHUK K JANAJATI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	130	<a href="#">MAJ GHAT HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
Y	131	<a href="#">MEDHISUTI HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	132	<a href="#">MILANJYOTI HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
Y	133	<a href="#">MISSING REGAM HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	134	<a href="#">MOHI CHANDRA MIRI GIRLS HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only

	135	<a href="#">MONI KUMAR HS</a>	BIHPURIA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	136	<a href="#">MORI DIKRONG TRIBEL HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
Y	137	<a href="#">NA-ALI HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	138	<a href="#">NA-PUKHURI HS</a>	BORDOLONI	Deptt Of Edn, Assam	Upper Pr. and Secondary
	139	<a href="#">NAMONI DIKRONG HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	140	<a href="#">NAMONI SUBANSIRI HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
Y	141	<a href="#">NARAYANPUR ADARSHA HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	142	<a href="#">NAVOJAL HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	143	<a href="#">NEHRU HSS</a>	BIHPURIA	Deptt Of Edn, Assam	Secondary with Hr. Secondary
	144	<a href="#">NEMUTENGANI GIRLS' HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	145	<a href="#">NEMUTENGANI HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Secondary Only
	146	<a href="#">NEMUTENGANI TRIBAL HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	147	<a href="#">NIMURI HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	148	<a href="#">NOBODOY GIRLS HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	149	<a href="#">NOWBOICHA HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Upper Pr. and Secondary
Y	150	<a href="#">NOWBOICHA HSS</a>	NOWBOICHA	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	151	<a href="#">PACHIM DHAKUAKHANA GIRLS' HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	152	<a href="#">PACHIM DHAKUAKHANA HSS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Secondary with Hr. Secondary
Y	153	<a href="#">PACHIM MACHKHOWA GIRLS' HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Secondary Only
	154	<a href="#">PACHIM RANGANADI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
Y	155	<a href="#">PACHIM SIMALUGURI HIGH SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	156	<a href="#">PACHIM SUBANSIRI JANAJATI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
Y	157	<a href="#">PAHUMORA HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	158	<a href="#">PANDOWA HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	159	<a href="#">PANIGAON HSS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary with Hr. Secondary
	160	<a href="#">PATRICHUK HS</a>	BORDOLONI	Deptt Of Edn, Assam	Upper Pr. and Secondary
	161	<a href="#">PICHALAGURI HIGH SECONDARY SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary with Hr. Secondary
	162	<a href="#">PILKHANA NABAIYOTI HS</a>	BIHPURIA	Deptt Of Edn, Assam	Secondary Only
Y	163	<a href="#">POKADOL GANDHIA HS</a>	BIHPURIA	Deptt Of Edn, Assam	Secondary Only
	164	<a href="#">PUB DHAKUAKHANA HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Secondary Only
	165	<a href="#">PUB TELAHI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	166	<a href="#">PUB-DHAKUAKHANA JANAJATI HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	167	<a href="#">PUB-DIKRONG GIRLS' HS</a>	BIHPURIA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	168	<a href="#">PUB-PHULBRI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	169	<a href="#">RAJIB GANDHI HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	170	<a href="#">RANGAJAN HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	171	<a href="#">RANGALI RESERVE HS</a>	BIHPURIA	Deptt Of Edn, Assam	Secondary Only
Y	172	<a href="#">RANGATI HSS</a>	NARAYANPUR	Deptt Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	173	<a href="#">RANGCHALI ADIBASI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
Y	174	<a href="#">RENGAM CHAMPARA HS</a>	BORDOLONI	Deptt Of Edn, Assam	Upper Pr. and Secondary
	175	<a href="#">RUPAHI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	176	<a href="#">S.D.K. HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	177	<a href="#">S.T.K. HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	178	<a href="#">SABOTI MP HSS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary with Hr. Secondary
	179	<a href="#">SANKAR MADHAB HIGH SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	180	<a href="#">SANTAPUR CHICHAPATHAR HIGH SCHOOL</a>	BIHPURIA	Deptt Of Edn, Assam	Secondary Only
	181	<a href="#">SAPATIA GIRLS' HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	182	<a href="#">SAPATIA HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	183	<a href="#">SARBESWAR BORUAH HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	184	<a href="#">SARBODAI GIRLS' HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
Y	185	<a href="#">SARBUDOI HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	186	<a href="#">SASTRY MEMORIAL HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	187	<a href="#">SILONIBARI BONUA HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
Y	188	<a href="#">SIMALUGURI HSS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary with Hr. Secondary
	189	<a href="#">SONAPUR PUKHURIA HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	190	<a href="#">SONARDHEKI MILANJYOTI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	191	<a href="#">SONARI CHAPORI TRIBAL HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	192	<a href="#">SRIMANTA SANKARDEV HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	193	<a href="#">SUBANSIRI GIRLS HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
Y	194	<a href="#">SUBANSIRI KAIWARTA HS</a>	BORDOLONI	Deptt Of Edn, Assam	Secondary Only
	195	<a href="#">SWAHID GOUTAM MILL HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	196	<a href="#">TAMARGAON TRIBAL HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	197	<a href="#">TARIONI BORBI HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
	198	<a href="#">TATIBAHAR HIGH SCHOOL</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	199	<a href="#">TELAHI KAMALABORIA HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Secondary Only
Y	200	<a href="#">TELAHI SUBANSIRI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Upper Pr. and Secondary
	201	<a href="#">TINTIA AHATGURI HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only
	202	<a href="#">UJALPUR HS</a>	LAKHIMPUR	Deptt Of Edn, Assam	Upper Pr. and Secondary
	203	<a href="#">UNITED KEKURI GIRLS' HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Upper Pr. and Secondary
Y	204	<a href="#">UTTAR DHAKUAKHANA GIRLS HS</a>	DHAKUAKHANA	Deptt Of Edn, Assam	Secondary Only
Y	205	<a href="#">UTTAR SIMALUGURI HS</a>	NARAYANPUR	Deptt Of Edn, Assam	Secondary Only

	206	<a href="#">UTTAR TEHLAHI HS</a>	NOWBOICHA	Deptt Of Edn, Assam	Secondary Only
	207	<a href="#">YUBANAGAR HS</a>	BIHPURIA	Deptt Of Edn, Assam	Upper Pr. and Secondary

- 1) Excluded Junior Colleges having only Hr. Secondary level ( i.e. Class-IX is not available in those institutions).
- 2) Excluded Madrassas and Sanskrit tols.

a) Schools are sorted alphabetically and assigned serial numbers as School Code.

b) For the sample, schools have been selected through simple random sampling technique drawn in Online Research Randomizer.

c) Total number of Schools 227. In Rural 207 no.s (91% of the total) & in Urban 20 no.s (9% of the total). For the sample 20 % schools (45 no.s) selected, where 91% (41 no.s) from Rural and 9% (4 no.s) from Urban as an equal representation.

# LIST OF ALL URBAN SECONDARY/ HIGHER SECONDARY SCHOOLS UNDER THE STUDY

Selected for Sample	School Code	School Name	Block Name	School Management	School Category
	1	<a href="#">BIHPURIA GIRLS' HSS</a>	BIHPURIA	Deptt. Of Edn, Assam	Upper Pr. and Secondary
Y	2	<a href="#">BIHPURIA COLLEGIATE HIGH SCHOOL</a>	BIHPURIA	Deptt. Of Edn, Assam	Secondary Only
	3	<a href="#">D.K. KENDRIYA ADARSHA BALIKA HS</a>	DHAKUAKHANA	Deptt. Of Edn, Assam	Upper Pr. and Secondary
	4	<a href="#">DHAKUAKHANA GIRLS HS</a>	DHAKUAKHANA	Deptt. Of Edn, Assam	Secondary Only
	5	<a href="#">DHAKUAKHANA HSS</a>	DHAKUAKHANA	Deptt. Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	6	<a href="#">DHAKUAKHANA TOWN HS</a>	DHAKUAKHANA	Deptt. Of Edn, Assam	Secondary Only
	7	<a href="#">DHEKIAJULI HIGH SCHOOL</a>	BIHPURIA	Deptt. Of Edn, Assam	Secondary Only
	8	<a href="#">DIKRONG HIGH SCHOOL</a>	BIHPURIA	Deptt. Of Edn, Assam	Secondary Only
	9	<a href="#">HATILUNG HS</a>	LAKHIMPUR	Deptt. Of Edn, Assam	Secondary Only
	10	<a href="#">KHORAPATHAR GIRLS HIGH SCHOOL</a>	BIHPURIA	Deptt. Of Edn, Assam	Secondary Only
	11	<a href="#">LAKHIMPUR ACADEMI HS</a>	LAKHIMPUR	Deptt. Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
Y	12	<a href="#">LAKHIMPUR GOVT. HSS</a>	LAKHIMPUR	Deptt. Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
Y	13	<a href="#">LOHIT DIKRONH HSS</a>	BIHPURIA	Deptt. Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	14	<a href="#">N.L. GIRLS HSS</a>	LAKHIMPUR	Deptt. Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	15	<a href="#">NARAYANPUR HSS</a>	NARAYANPUR	Deptt. Of Edn, Assam	Up. Pr. Secondary & Hr. Sec
	16	<a href="#">NORTH LAKHIMPUR RLY. HS</a>	LAKHIMPUR	Deptt. Of Edn, Assam	Secondary Only
	17	<a href="#">NORTH LAKHIMPUR TOWN HIGH SCHOOL</a>	LAKHIMPUR	Deptt. Of Edn, Assam	Secondary Only
	18	<a href="#">P.N.G.B. GIRLS HS</a>	LAKHIMPUR	Deptt. Of Edn, Assam	Upper Pr. and Secondary
	19	<a href="#">PANINDRA VIDYALAY HS</a>	LAKHIMPUR	Deptt. Of Edn, Assam	Upper Pr. and Secondary
Y	20	<a href="#">UDBASTRU HS</a>	BIHPURIA	Deptt. Of Edn, Assam	Upper Pr. and Secondary

1) Excluded Junior Colleges having only Hr. Secondary level, as the Class-IX is not available in those institutions.

2) Excluded Madrassas and Sanskrit Tols.

a) Schools are sorted alphabetically and assigned serial numbers as School Code.

b) For the sample, schools have been selected through simple random sampling technique drawn in Online Research Randomizer.

c) Total number of Schools 227. In Rural 207 no.s (91% of the total) & in Urban 20 no.s (9% of the total). For the sample 20 % schools (45 no.s) selected, where 91% (41 no.s) from Rural and 9% (4 no.s) from Urban as an equal representation.



## APPENDIX - V

**DEPARTMENT OF EDUCATION**  
**NAGALAND UNIVERSITY**  
(A Central University Established by the Act of Parliament 1989)  
**CAMPUS : KOHIMA, MERIEMA**

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To,  
The Inspector of Schools,  
Lakhimpur District  
PIN – 787001, Assam.

Kohima, dated 16 /05/2015

Sub : Permission for conducting survey/ interview in Higher Secondary & Secondary Schools relating to a research work leading to the Ph.D. Degree.

Dear Sir,

This is for your kind information that a study/ survey on 'Vocational Interest of Class-IX Students of Lakhimpur District of Assam : A Comparative Study" leading to the Ph.D. Degree is being conducted by Shri Hemanta Kr. Baruah (Investigator), under my supervision.

For this purpose, some information on Vocational Interest of Class-IX students in different fields as well as the present Vocational Education System is required from the 45 no.s of selected sample schools of Lakhimpur District as per the list enclosed.

It is for your information that for collecting data on vocational interest of Class-IX students, a standardized tool/ test will be executed among the students. Time taken will be around 7- 10 minutes for completion of the test. Besides, a separate interview will be conducted with the Heads of the Schools/Institutions for collecting information on present vocational education system.

All those information will be collected by the Investigator himself or by the Field Assistant (s) duly trained and authorized by the Investigator.

In this connection, you are requested to give necessary permission to the Investigator for conducting the above said survey/interview in those selected schools which fall under your jurisdiction. Any data so collected shall be used solely for research purpose and confidentiality of respondents shall be maintained.

With warm regards and thanks,

Sincerely,

Enclo : As stated above.

(Dr. Lungsang Zeliang)  
Supervisor & Head  
Department of Education

Copy to :

- 1) Shri Hemanta Kr. Baruah, Investigator – for information.



**OFFICE OF THE DISTRICT PROGRAMME CO-ORDINATOR  
RASHTRIYA MADHYAMIK SHIKSHA ABHIJAN, LAKHIMPUR  
North Lakhimpur-787001**

No. RMSA Lakhimpur Gen./2012/001/ **8758-9058**

Date: **14.8.2015**

From,

Prasanna Borah, AES  
Inspector of Schools  
L.D.C. North Lakhimpur  
cum  
DPC, RMSA, Lakhimpur

To,

The Principal/ Head-Master/ Head-Mistress. (All)  
L.D.C., North-Lakhimpur.

Subj: Regarding extend co-operation and assistance for conducting Survey/ Interview in secondary Schools.


Sir/ Madam,

With reference to the subject cited above, I have the honour to inform you that Sri Hemanta Kr. Boruah, Investigator himself will visit your school for a survey/ Interview leading to the Ph.D.Degree. The survey/ Interview will be on vocational interest of class.-IX students. A standardised Tool/ Test will be executed among the students for around 07-10 minutes.

As such, you are requested to extend your co-operation and assistance in all respect to the investigator.

This is for favour of your kind information and necessary action.  
Enclosed, - (a) Letter received from Nagaland University.

Yours Faithfully

  
Inspector of Schools  
L.D.C. North- Lakhimpur.  
cum  
DPC, RMSA, Lakhimpur  
Date:.....

No. RMSA Lakhimpur Gen./2012/001/

Copy for kind information to:-

1. The Deputy Commissioner, Lakhimpur, North Lakhimpur
2. The Addl. Deputy Commissioner(Edn), Lakhimpur, North Lakhimpur
3. Sri Hemanta Kr. Baruah for kind information.
4. Office File.

/   
Inspector of Schools  
L.D.C. North- Lakhimpur.  
cum  
DPC, RMSA, Lakhimpur

# APPENDIX - VI

## RAW SCORES IN RESPECT OF BOYS

NAME OF SAMPLE	Sl. No.	LITERARY (L)	SCIENTIFIC (SC)	EXECUTIVE (E)	COMMERCIAL (C)	CONSTRUCTIVE (CO)	ARTISTIC (A)	AGRICULTURE (AG)	PERSUASIVE (P)	SOCIAL (S)	HOUSEHOLD (H)
Bihpuria Collegiate Higher Secondary School	1	10	9	8	8	4	8	2	7	3	6
	2	9	14	12	12	6	11	8	11	10	8
	3	11	17	10	10	7	10	7	10	9	11
	4	8	14	10	8	8	11	10	10	10	10
	5	6	14	8	6	10	14	14	10	8	9
	6	10	14	9	10	8	6	8	10	7	11
	7	9	10	12	9	9	10	9	13	12	8
	8	3	4	8	5	2	10	3	9	4	5
	9	3	6	5	1	2	3	2	2	1	3
	10	5	7	8	5	3	14	3	5	3	4
	11	5	9	13	8	10	11	9	12	10	10
	12	10	7	11	8	9	11	7	10	11	11
	13	7	11	12	7	8	12	10	7	12	11
Bechamukh Chariali High School	14	5	12	9	8	7	13	7	10	5	10
	15	2	6	10	5	7	14	5	10	10	12
	16	12	9	14	8	13	10	13	12	9	10
	17	6	10	9	8	6	9	8	10	4	9
	18	10	12	14	10	11	14	5	8	7	10
	19	8	12	14	6	8	14	8	5	6	8
	20	10	10	10	6	7	12	7	5	8	10
	21	10	9	11	11	10	14	11	9	11	12
	22	9	16	15	6	6	13	6	9	3	9
	23	11	9	12	7	7	8	6	7	10	8
	24	5	9	5	2	3	8	3	4	3	5
Kherkata High School	25	10	6	7	10	7	8	7	7	8	5
	26	10	8	8	10	8	5	6	8	7	7
	27	5	10	14	13	11	15	6	8	8	7
	28	8	4	10	7	5	9	6	7	6	5
	29	8	9	11	11	5	11	7	8	4	8
	30	6	8	9	7	6	7	4	5	1	7
	31	8	11	10	10	11	11	9	11	8	13
	32	7	8	8	0	2	11	2	4	5	3
	33	10	8	11	8	8	17	8	6	6	9
	34	10	9	13	10	10	10	9	14	12	11
Luit Poria Missing High School	35	3	5	5	7	4	6	2	6	13	5
	36	9	11	12	12	9	11	11	10	9	14
	37	2	4	2	0	1	1	2	1	1	3
	38	15	17	12	12	6	13	13	11	9	11
	39	9	5	6	5	10	10	8	6	9	10
	40	7	9	10	8	7	8	7	8	5	8
	41	6	9	14	5	10	13	9	9	12	12
	42	12	10	13	8	9	9	10	11	14	11
	43	7	9	8	6	10	12	10	9	10	14
	44	8	13	11	13	13	18	16	14	14	17
	45	8	7	10	10	8	7	9	6	9	12
Uttar Simaluguri High School	46	6	8	13	11	11	10	12	12	9	8
	47	10	10	10	10	10	12	10	7	14	7
	48	9	12	9	10	5	10	10	10	6	10
	49	8	11	12	8	10	11	10	9	9	6
	50	8	14	9	5	8	9	10	11	11	13
	51	6	12	12	10	8	10	11	13	8	9
	52	7	13	8	10	7	11	13	6	16	8
	53	8	9	12	13	8	7	12	7	12	12
	54	5	15	15	5	10	9	8	11	10	12
	55	10	10	16	12	14	10	6	3	9	6
	56	8	12	13	7	8	12	8	8	5	11
Da-dhara Sankardev High School	57	9	11	12	11	7	10	10	10	8	17
	58	5	7	7	6	8	9	5	3	5	8
	59	8	12	10	5	7	14	3	6	5	11
	60	13	16	10	11	10	11	10	7	15	14
	61	7	7	9	4	3	10	1	6	4	3
	62	6	15	14	11	6	14	6	6	10	10
	63	9	15	16	10	6	11	8	9	10	9
	64	6	12	16	10	8	11	6	9	6	7
	65	10	6	9	7	5	7	5	7	8	7
	66	7	16	13	8	9	10	7	10	6	10
	67	8	13	13	7	8	10	4	11	6	11
	68	7	10	13	9	4	13	7	6	5	13
	69	8	10	10	12	11	13	6	11	11	12
	70	9	14	9	10	5	6	5	6	4	6
	71	9	17	15	9	10	15	13	10	14	12
	72	2	11	13	4	4	2	4	4	4	8
Howajan Academy	73	0	4	3	1	0	3	0	1	0	0
	74	0	3	2	1	0	1	0	1	1	0
	75	0	3	1	1	0	0	0	1	0	0
	76	1	1	1	3	0	1	2	0	3	0
	77	1	1	5	0	0	0	1	1	1	0
	78	2	1	2	0	2	0	0	3	1	0
	79	0	2	5	1	0	0	1	1	2	0
	80	0	1	10	3	0	1	0	0	0	0

Balipathar Anchalik High School	81	0	2	2	1	0	1	0	1	1	0
	82	0	3	1	1	0	0	0	1	1	0
	83	1	0	2	0	0	0	0	1	0	0
	84	0	1	5	1	3	0	3	3	1	4
	85	12	16	15	9	8	10	14	10	11	12
	86	0	0	3	0	0	1	2	3	1	1
	87	3	6	6	2	4	6	6	4	6	5
	88	6	10	10	8	8	7	10	7	10	8
	89	5	5	8	2	1	11	6	6	1	8
	90	3	3	11	1	0	7	0	2	0	2
Harmoti Pichala High School	91	5	11	8	11	9	14	8	8	7	14
	92	3	3	2	1	0	4	3	1	0	1
	93	12	8	13	6	8	11	9	10	7	11
	94	5	4	6	0	1	8	3	1	2	7
	95	0	8	6	1	0	2	0	2	2	1
	96	6	3	8	8	8	10	5	8	4	1
	97	2	7	9	3	2	1	6	3	1	3
	98	6	11	4	1	1	6	2	1	2	5
	99	0	0	2	0	0	0	0	0	1	0
	100	0	9	5	1	2	0	7	0	1	2
Pachim Simaluguri High School	101	4	8	13	3	3	7	1	2	3	7
	102	0	1	0	1	0	1	0	0	1	0
	103	0	1	0	0	0	0	0	1	0	0
	104	0	3	0	0	0	0	0	1	0	0
	105	0	0	1	0	0	0	0	1	0	0
	106	7	12	16	5	9	15	4	7	8	8
	107	6	10	9	6	2	6	2	5	0	4
	108	6	6	7	1	1	2	6	5	3	4
	109	4	5	7	4	0	6	3	4	2	3
	110	11	9	13	5	7	10	5	7	7	10
Pakadol Gandhia High School	111	14	9	13	11	8	2	10	8	3	8
	112	8	13	9	7	4	9	2	9	6	3
	113	5	4	7	6	14	4	9	11	8	5
	114	8	9	8	3	4	4	6	6	5	3
	115	4	5	6	2	3	4	4	3	3	3
	116	13	15	15	5	10	10	11	10	9	12
	117	0	0	1	2	2	2	3	2	3	2
	118	0	2	2	3	4	4	2	2	3	2
	119	1	0	2	2	3	5	2	0	2	3
	120	0	1	1	2	3	1	1	2	1	3
North Lakhimpur Govt. Higher Secondary School	121	1	1	4	2	2	0	0	0	0	2
	122	1	2	1	3	1	5	2	1	1	0
	123	2	2	3	3	1	1	2	2	3	2
	124	1	4	4	0	1	1	0	0	1	0
	125	4	8	4	3	4	4	2	0	1	4
	126	7	12	9	6	9	11	9	12	8	11
	127	5	15	10	2	1	6	1	4	5	6
	128	6	14	11	16	8	9	9	6	9	9
	129	12	13	12	10	10	11	10	10	5	8
	130	8	11	6	12	8	12	10	10	6	9
Pahumora High School	131	9	17	15	12	13	14	14	12	12	14
	132	6	14	11	4	2	7	1	9	5	10
	133	11	10	6	10	8	9	7	5	7	6
	134	5	11	11	3	7	15	8	5	6	9
	135	4	11	12	6	1	5	6	5	3	3
	136	3	15	9	2	1	2	0	2	7	2
	137	9	8	8	5	4	7	2	4	4	4
	138	9	13	11	7	8	13	8	11	10	10
	139	9	14	10	8	8	13	8	11	10	10
	140	6	16	15	5	4	6	3	8	6	9
Madhabdev Collegiate Higher Secondary School	141	6	16	13	5	5	7	3	8	6	8
	142	14	6	12	4	6	6	5	10	12	10
	143	8	11	13	8	9	10	10	10	11	9
	144	2	3	3	2	1	8	3	4	2	4
	145	4	7	12	4	1	9	1	3	3	7
	146	9	12	12	9	10	11	12	6	7	10
	147	10	12	14	8	10	13	7	8	10	7
	148	10	11	16	5	4	17	12	4	10	12
	149	9	8	9	12	9	12	10	11	9	11
	150	5	13	12	8	10	7	11	11	9	14
	151	6	12	11	7	6	11	10	13	2	10
	152	7	15	14	7	12	8	9	11	11	6
	153	6	17	14	9	8	12	8	10	8	8
	154	9	11	13	9	7	9	12	13	10	6
	155	7	12	11	5	14	12	12	9	9	9
	156	2	3	7	0	0	8	3	1	1	3
	157	2	8	9	4	4	12	4	7	4	5
	158	6	10	8	3	6	12	9	8	8	14
	159	4	8	12	6	0	11	3	14	5	8
	160	2	7	11	2	0	6	2	4	4	2
	161	5	13	10	5	6	7	1	3	8	10
	162	8	15	13	8	5	10	3	11	7	13
	163	9	15	13	3	8	8	8	9	7	11
	164	4	11	13	3	0	14	3	6	2	3
	165	5	14	12	2	0	10	4	3	2	1

Kadam High School	166	4	9	10	5	4	2	4	5	2	2
	167	1	8	11	6	1	6	4	6	6	9
	168	0	8	5	4	0	4	1	2	2	0
	169	0	3	5	4	1	1	1	2	1	6
	170	1	15	6	1	1	8	0	1	4	6
	171	0	3	0	0	0	1	0	0	0	0
	172	1	0	1	0	0	0	0	1	0	0
	173	0	0	0	1	0	1	0	0	0	0
	174	0	0	1	0	0	1	0	0	1	0
	175	0	0	0	1	0	1	0	0	0	0
	176	0	0	0	0	1	0	1	0	0	0
	177	0	1	0	0	0	2	0	0	0	0
	178	0	0	0	1	0	1	0	0	0	0
	179	0	0	1	1	0	0	0	0	0	0
	180	0	0	1	0	0	1	0	0	0	0
Janapriya High School	181	7	12	11	6	3	11	2	12	8	11
	182	6	11	13	10	5	12	3	9	10	12
	183	6	13	9	7	5	9	5	13	8	9
	184	8	10	11	8	4	9	4	13	7	10
	185	8	12	9	7	5	10	3	10	5	9
	186	4	9	10	6	2	9	3	7	6	10
	187	7	10	7	4	4	9	5	9	8	9
	188	7	10	11	9	2	11	3	9	6	11
	189	3	6	8	5	2	6	5	6	5	6
	190	4	9	11	7	3	11	5	8	4	11
Narayanpur Adarsha High School	191	0	2	3	0	0	0	0	0	0	0
	192	6	8	6	0	4	1	2	1	2	0
	193	5	7	8	4	8	3	1	2	2	3
	194	0	0	2	0	0	1	0	0	0	0
	195	1	2	4	3	1	2	8	2	2	3
	196	5	10	11	5	5	4	2	6	3	3
	197	3	8	8	1	3	1	4	1	3	3
	198	0	9	8	2	2	3	2	2	1	1
	199	5	12	8	3	1	6	3	6	4	5
	200	5	11	10	6	3	10	6	8	4	6
	201	4	15	9	1	3	9	4	8	7	6
Nowboicha Higher Secondary School	202	10	14	14	12	6	14	4	4	6	12
	203	7	6	8	6	5	7	5	8	9	9
	204	1	1	3	2	0	2	2	0	0	0
	205	5	4	8	6	10	9	3	3	4	5
	206	1	3	4	2	5	2	2	3	1	2
	207	1	3	1	0	0	0	0	0	0	0
	208	3	4	4	5	8	4	8	6	8	10
	209	1	6	2	0	1	0	0	0	0	1
	210	10	8	8	12	8	13	7	7	10	7
	211	6	2	3	1	4	8	0	3	1	1
	212	2	7	10	10	5	11	5	9	10	8
	213	7	5	8	6	4	5	5	4	4	7
	214	9	14	14	11	5	16	4	3	6	11
	215	5	4	8	5	6	4	0	3	1	0
	216	7	11	7	5	4	4	6	4	3	6
	217	6	4	5	9	6	7	9	6	8	5
	218	2	9	8	7	1	6	1	3	2	4
Dihiri High School	219	2	5	6	4	4	6	3	3	1	7
	220	8	12	11	10	12	11	11	8	10	4
	221	0	0	2	0	0	0	0	0	1	0
	222	1	4	3	3	5	8	3	2	1	1
	223	0	4	4	2	0	2	0	1	1	0
	224	1	1	5	2	0	2	1	1	1	4
	225	0	2	2	0	2	2	1	0	0	0
	226	2	4	6	5	1	6	2	3	4	3
Dhalpur Academy High School	227	8	5	8	9	4	6	4	5	3	8
	228	6	7	7	11	3	6	2	7	5	7
	229	4	6	7	1	3	4	5	7	4	5
	230	3	8	10	5	3	3	6	4	5	3
	231	7	5	11	5	0	14	3	5	10	3
	232	11	17	14	8	10	17	13	15	13	13
	233	12	19	18	10	13	19	14	16	11	10
	234	5	8	10	4	6	10	10	11	6	5
	235	3	2	8	1	2	4	4	5	7	2
	236	8	10	10	7	2	12	6	10	7	11
Udbastu High School	237	3	7	12	3	1	9	2	7	5	6
	238	10	14	9	13	13	10	10	9	10	5
	239	1	9	8	5	5	10	10	8	7	10
	240	9	11	7	9	12	9	12	12	5	9
	241	14	14	16	15	8	12	8	9	15	10
	242	0	5	0	0	0	0	0	1	0	0
	243	10	15	10	12	7	14	3	10	8	9
	244	2	0	1	2	1	9	1	3	2	2
Lohit Dikrong Higher Secondary School	245	0	10	6	5	1	4	7	6	9	5
	246	2	6	3	4	1	5	2	2	5	1
	247	0	7	6	2	1	0	5	3	6	4
	248	2	1	4	0	2	11	0	1	1	1
	249	0	4	6	4	1	4	3	1	7	6
	250	2	9	11	3	2	3	2	3	1	2

	251	0	2	5	4	1	6	3	3	1	1
	252	8	6	8	5	1	14	1	6	4	5
	253	3	5	4	6	1	3	2	4	6	1
Simaluguri Higher Secondary School	254	6	11	14	10	5	12	7	14	11	8
	255	11	13	15	9	5	6	7	14	12	7
	256	5	12	11	6	10	6	9	4	10	9
	257	5	13	18	10	1	10	9	11	12	10
	258	12	9	16	11	6	13	6	11	7	8
	259	10	9	12	12	10	8	9	7	5	13
	260	8	8	15	6	8	14	10	13	10	8
	261	5	14	17	12	7	9	7	9	9	9
Rangati Higher Secondary School	262	9	10	6	10	12	7	9	10	11	10
	263	7	16	15	8	6	17	12	8	9	13
	264	8	12	15	6	9	14	7	10	8	10
	265	15	17	16	18	18	19	10	14	13	11
	266	8	9	14	10	8	13	8	8	9	13
	267	12	15	12	8	10	11	12	13	13	13
	268	2	8	7	8	2	1	5	8	9	6
All Assam Miri High School	269	2	4	7	2	1	2	0	0	0	1
	270	4	3	6	2	2	3	1	2	1	1
	271	3	3	5	3	3	2	2	1	1	0
	272	2	3	4	1	0	0	1	1	1	0
	273	0	7	13	4	2	3	2	5	3	2
	274	1	5	5	3	1	1	3	2	0	0
	275	3	8	15	4	4	3	4	6	2	3
	276	2	6	7	1	0	0	0	3	1	1
	277	2	4	8	3	1	0	1	4	3	1
	278	2	5	7	2	1	0	2	2	1	0
Avanari Janajati High School	279	2	6	4	2	3	3	1	5	4	1
	280	1	5	5	3	2	1	1	3	3	1
	281	1	5	4	1	0	0	0	1	1	0
	282	0	3	6	1	0	0	1	3	1	0
	283	0	2	4	3	1	3	1	2	2	1
	284	1	4	6	1	1	1	1	2	2	0
	285	1	6	13	2	0	0	2	4	2	2
	286	1	3	5	1	0	3	0	1	0	0
	287	1	1	4	0	0	0	1	1	0	0
	288	3	1	11	0	0	0	0	2	1	0
	289	2	1	4	1	0	3	0	1	0	1
Missing Rengam High School	290	9	13	12	10	12	15	9	11	9	13
	291	11	13	8	13	16	9	10	14	10	10
	292	7	11	10	7	17	10	6	11	11	16
	293	12	15	13	9	11	13	13	14	12	13
	294	2	0	0	0	2	9	1	1	2	1
	295	0	4	4	2	2	7	0	2	4	4
	296	0	0	5	0	0	0	0	0	1	0
	297	1	0	1	2	0	3	0	0	1	1
	298	0	0	1	2	0	3	0	0	1	0
	299	1	3	10	1	0	3	0	4	1	0
	300	4	3	7	0	0	6	1	1	1	2
	301	8	5	8	4	3	8	3	3	0	7
	302	4	7	4	4	2	7	2	4	1	7
	303	2	3	6	1	2	0	1	4	0	5
	304	4	3	5	2	1	7	1	4	0	8
	305	9	9	16	11	2	12	8	10	8	7
Borkha Baghmora High School	306	11	9	16	11	2	11	5	9	11	6
	307	9	11	14	9	7	11	8	9	10	11
	308	12	8	15	8	5	10	7	12	9	10
	309	11	11	15	9	7	10	7	11	7	10
	310	7	9	11	10	6	14	10	12	10	11
	311	2	3	1	1	1	1	0	0	1	0
	312	6	9	5	8	3	9	2	7	5	10
	313	0	4	4	0	2	5	2	0	1	2
	314	0	3	1	0	1	2	1	2	1	2
	315	0	3	1	0	0	0	0	0	1	1
	316	11	12	14	11	6	15	13	13	11	13
	317	6	12	16	7	3	12	5	11	7	10
	318	6	10	8	4	5	8	3	6	5	7
	319	11	11	14	7	5	14	7	9	6	14
	320	9	10	14	7	9	11	7	8	8	8
	321	8	13	19	7	6	11	7	9	9	11
Dangdhara High School	322	9	11	13	12	13	10	4	11	7	10
	323	7	16	12	12	6	10	7	9	7	11
	324	10	8	13	9	5	10	6	9	6	13
	325	3	5	11	4	2	5	1	1	2	1
	326	3	5	12	4	2	4	2	4	1	1
	327	0	5	5	0	0	0	2	2	1	1
	328	2	4	5	2	2	3	2	3	2	1
	329	8	8	13	5	6	4	3	5	3	2
	330	2	4	6	4	2	2	2	1	0	2
	331	6	5	12	4	3	5	5	4	3	3
	332	2	6	10	2	3	4	0	0	4	2
	333	3	3	7	2	2	2	0	1	0	1
	334	3	5	6	4	3	6	4	3	2	1
	335	5	5	11	6	4	4	4	5	3	2

Gandhia High School	336	2	1	4	2	2	2	0	0	0	0
	337	5	4	11	4	3	2	3	5	0	3
	338	3	3	6	3	1	4	3	2	2	2
	339	5	4	8	4	1	4	4	5	2	2
	340	2	5	6	4	2	3	2	2	2	0
	341	4	5	11	5	6	6	5	3	2	1
	342	2	5	7	3	6	3	3	3	3	1
	343	2	4	9	4	4	6	6	4	3	1
	344	5	11	14	8	8	6	7	6	6	6
	345	5	6	7	2	1	2	2	3	2	0
	346	5	10	15	4	4	3	2	4	3	1
	347	0	3	4	0	0	0	0	2	2	0
	348	0	2	5	1	0	3	2	2	0	0
	349	9	7	14	6	11	13	7	8	9	14
	350	9	10	15	4	6	13	8	11	12	10
	351	7	12	12	7	7	13	7	12	10	13
	352	9	11	18	8	4	9	7	12	13	8
	353	10	10	17	9	3	13	3	9	10	9
	354	11	12	15	10	7	11	5	12	8	8
	355	1	6	6	3	1	5	3	2	2	10
	356	7	8	9	7	4	6	6	5	9	11
	357	3	3	3	0	1	1	2	2	0	2
Ghunauti High School	358	4	5	5	3	4	3	5	2	5	6
	359	7	9	15	6	2	13	2	11	6	8
	360	1	4	1	0	1	2	0	0	1	1
	361	2	4	2	0	1	2	1	2	1	2
	362	4	3	1	4	5	9	6	6	4	4
	363	9	13	7	7	4	16	3	7	4	13
	364	7	3	5	0	3	0	2	0	0	2
	365	10	4	5	6	4	5	3	4	8	11
	366	1	1	0	0	0	1	0	0	1	1
	367	2	3	2	0	1	3	1	1	1	3
	368	8	5	8	4	3	4	4	3	4	4
	369	4	2	1	0	0	3	0	1	0	2
	370	2	2	4	2	0	3	3	1	1	4
	371	10	10	11	9	9	13	6	11	8	16
	372	7	4	3	6	3	7	3	2	3	7
	373	8	7	8	6	2	7	2	6	2	3
	374	1	0	5	0	0	5	0	1	0	1
	375	5	5	8	2	7	6	3	4	5	11
	376	10	14	10	9	11	7	9	11	10	9
	377	14	15	14	11	11	15	15	16	13	16
	378	8	12	16	8	14	9	8	10	12	5
Jamuguri Chariati High School	379	11	8	8	3	5	6	7	8	7	4
	380	8	8	8	3	3	5	2	6	3	5
	381	11	7	10	8	3	9	5	7	6	12
	382	5	4	9	4	2	11	6	7	6	5
	383	10	7	7	7	4	4	3	4	4	8
	384	10	5	5	9	5	3	6	6	4	5
	385	11	5	9	5	7	11	5	6	9	12
	386	5	9	7	4	3	12	4	4	5	10
	387	4	3	13	2	3	12	7	4	5	6
	388	5	4	13	2	2	10	2	8	8	10
Jugisuti Tribal High School	389	7	10	14	10	5	10	3	8	10	9
	390	1	2	1	0	0	4	1	0	0	3
	391	6	7	11	7	4	14	3	2	3	3
	392	9	12	13	9	3	10	7	10	4	13
	393	12	14	15	7	2	17	9	11	11	14
	394	6	9	10	7	5	12	2	10	6	15
	395	10	16	18	12	16	13	15	15	14	15
	396	11	15	13	11	9	18	6	12	6	9
	397	6	6	4	3	1	10	5	5	7	3
	398	8	16	13	7	6	12	7	9	11	12
	399	2	4	2	4	0	2	2	1	1	3
	400	2	0	2	2	1	6	0	2	0	1
Kathalpara High School	401	7	8	6	7	7	7	8	9	10	11
	402	8	9	4	8	5	6	3	7	1	8
	403	6	11	7	4	3	7	7	7	8	9
	404	2	4	3	3	2	9	2	1	2	4
	405	10	10	10	12	7	14	10	12	9	12
	406	5	9	13	2	7	5	6	7	8	9
	407	8	14	13	9	6	12	9	10	8	11
	408	8	13	13	3	2	10	5	4	9	9
	409	7	12	14	7	8	13	11	11	11	6
	410	9	11	8	11	13	14	5	8	10	11
Medhisuti High School	411	9	15	13	6	3	12	6	11	10	15
	412	7	6	6	4	2	8	6	12	11	6
	413	2	14	10	6	0	5	6	5	6	6
	414	12	12	14	9	7	7	6	8	5	5
	415	5	13	7	12	8	11	10	7	6	13
	416	13	5	7	11	5	11	7	11	10	12
	417	11	6	9	6	9	6	10	14	9	9
	418	0	0	2	1	3	2	2	2	3	3
	419	6	4	5	7	1	5	2	1	5	4
	420	0	0	0	1	0	2	2	1	1	2

Na-Ali High School	421	0	0	2	2	2	3	2	0	0	2
	422	1	0	0	1	3	1	2	1	1	2
	423	0	0	1	2	4	3	0	1	4	2
	424	0	0	2	3	2	1	2	0	3	2
	425	0	0	3	4	3	1	1	2	4	2
	426	0	0	0	0	3	2	0	1	4	1
	427	1	1	0	2	1	2	1	1	4	1
	428	1	0	1	0	2	0	2	1	2	1
	429	0	0	2	4	1	5	2	1	3	0
	430	1	1	1	4	4	5	2	1	3	3
	431	0	0	2	1	1	3	1	2	4	3
	432	0	1	4	2	2	2	2	0	3	5
	433	2	0	0	0	1	2	0	0	1	1
	434	4	2	3	0	2	4	2	0	1	1
	435	1	1	3	0	0	0	1	0	1	0
	436	1	1	1	1	0	0	1	1	1	0
	437	2	2	3	0	1	3	1	0	1	0
	438	1	0	1	0	0	2	1	0	1	0
	439	3	2	4	2	1	4	1	1	1	0
	440	9	8	11	11	11	11	11	10	10	11
Rengam Champara High School	441	14	12	15	13	11	12	13	12	7	12
	442	11	8	11	8	11	9	5	11	7	11
	443	11	11	11	7	11	9	12	6	9	10
	444	10	4	8	10	13	9	11	9	14	13
	445	9	11	10	11	12	12	12	10	9	14
	446	8	13	17	13	13	13	16	10	14	15
	447	6	6	9	11	7	11	7	11	6	15
	448	6	10	11	9	8	10	9	7	6	13
	449	9	10	12	4	7	12	10	5	6	9
	450	10	15	16	14	12	15	18	13	13	15
	451	8	10	12	7	6	16	6	9	11	14
	452	11	11	9	10	9	9	10	8	7	7
	453	8	7	9	4	12	9	3	8	11	8
	454	8	7	7	7	8	8	5	5	8	8
	455	6	11	8	7	8	14	9	7	10	10
	456	6	5	5	8	2	11	3	6	4	9
	457	6	7	7	13	10	11	6	6	10	13
	458	4	12	9	9	8	7	7	9	8	9
	459	10	12	7	9	8	15	4	7	6	15
	460	1	10	9	4	3	10	3	2	4	10
	461	9	18	12	8	8	9	7	7	4	10
Sarboday High School	462	0	1	4	0	0	2	0	1	0	0
	463	8	7	15	8	5	13	8	7	3	8
	464	9	18	13	13	14	16	12	11	13	16
	465	9	9	8	7	8	14	4	4	9	10
	466	7	17	11	7	4	13	7	11	9	11
	467	6	8	5	4	2	3	2	5	2	4
	468	8	5	5	4	5	4	4	1	2	2
	469	12	11	14	11	10	13	12	9	14	15
	470	9	10	11	10	12	11	10	8	12	10
	471	9	12	8	12	6	8	11	9	6	12
Subansiri Kaiwarta High School	472	7	11	8	8	7	5	4	6	2	9
	473	9	9	6	7	8	7	3	5	7	4
	474	7	12	10	7	3	8	4	5	5	12
	475	9	10	10	13	9	11	11	12	13	9
	476	13	12	15	10	15	11	13	16	11	9
	477	8	9	13	6	6	6	3	9	3	7
	478	3	8	2	3	3	5	3	4	4	4
	479	5	11	11	9	10	5	7	4	1	8
	480	10	11	7	12	8	9	11	11	11	9
	481	9	13	12	8	8	12	9	8	10	11
Telahi Subansiri High School	482	8	6	12	8	7	11	3	8	2	10
	483	5	9	8	10	11	8	10	9	9	11
	484	10	7	8	11	8	11	10	7	9	11
	485	12	16	8	7	9	13	12	13	17	14
	486	11	10	13	8	8	13	10	7	10	7
	487	10	10	11	9	7	12	5	5	9	13
	488	7	12	10	9	6	11	7	13	14	13
	489	7	7	9	6	4	11	6	9	11	12
	490	7	8	12	12	6	9	7	11	8	15
	491	14	16	15	18	15	13	10	15	10	18
	492	8	10	11	8	4	11	6	10	14	12



# RAW SCORES IN RESPECT OF GIRLS

NAME OF SAMPLE	Sl. No.	LITERARY (L)	SCIENTIFIC (SC)	EXECUTIVE (E)	COMMERCIAL (C)	CONSTRUCTIVE (CO)	ARTISTIC (A)	AGRICULTURE (AG)	PERSUASIVE (P)	SOCIAL (S)	HOUSEHOLD (H)
Bihpuria Collegiate Higher Secondary School	1	6	10	10	5	9	12	6	12	8	10
	2	13	18	16	14	14	10	16	12	15	14
	3	6	10	15	9	10	12	7	9	9	9
	4	8	7	7	7	8	8	5	5	8	8
	5	6	11	8	7	8	14	9	7	10	10
	6	6	5	5	8	2	11	3	6	4	9
	7	6	7	7	13	10	11	6	6	10	13
	8	4	12	9	9	8	7	7	9	8	9
	9	10	12	7	9	8	15	4	7	6	15
	10	1	10	9	4	3	10	3	2	4	10
Bechamukh Chariali High School	11	9	18	12	8	8	9	7	7	4	10
	12	0	1	4	0	0	2	0	1	0	0
	13	8	7	15	8	5	13	8	7	3	8
	14	9	18	13	13	14	16	12	11	13	16
	15	9	9	8	7	8	14	4	4	9	10
	16	7	17	11	7	4	13	7	11	9	11
	17	6	8	5	4	2	3	2	5	2	4
	18	8	5	5	4	5	4	4	1	2	2
	19	12	11	14	11	10	13	12	9	14	15
	20	9	10	11	10	12	11	10	8	12	10
Kherkata High School	21	9	12	8	12	6	8	11	9	6	12
	22	7	11	8	8	7	5	4	6	2	9
	23	9	9	6	7	8	7	3	5	7	4
	24	7	12	10	7	3	8	4	5	5	12
	25	9	10	10	13	9	11	11	12	13	9
	26	13	12	15	10	15	11	13	16	11	9
	27	8	9	13	6	6	6	3	9	3	7
	28	3	8	2	3	3	5	3	4	4	4
	29	5	11	11	9	10	5	7	4	1	8
	30	10	11	7	12	8	9	11	11	11	9
	31	9	13	12	8	8	12	9	8	10	11
	32	8	6	12	8	7	11	3	8	2	10
	33	5	9	8	10	11	8	10	9	9	11
	34	10	7	8	11	8	11	10	7	9	11
Luit Poria Missing High School	35	12	16	8	7	9	13	12	13	17	14
	36	11	10	13	8	8	13	10	7	10	7
	37	10	10	11	9	7	12	5	5	9	13
	38	7	12	10	9	6	11	7	13	14	13
	39	7	7	9	6	4	11	6	9	11	12
	40	7	8	12	12	6	9	7	11	8	15
	41	14	16	15	18	15	13	10	15	10	18
	42	8	10	11	8	4	11	6	10	14	12
	43	8	13	12	4	7	9	9	8	12	13
	44	7	10	9	10	11	13	9	8	14	11
	45	11	8	7	9	11	8	12	11	8	10
	46	11	10	11	10	11	10	12	10	11	12
	47	8	8	7	1	4	15	5	4	8	6
	48	11	10	8	12	5	13	12	8	9	12
UttarSimaluguri High School	49	8	8	9	17	14	6	11	9	7	11
	50	13	13	14	12	11	13	12	12	13	9
	51	10	11	9	12	10	7	9	12	12	9
	52	4	14	12	8	10	11	9	11	10	12
	53	10	10	9	8	11	13	11	9	10	10
	54	10	11	12	13	10	10	5	8	10	10
	55	10	9	17	9	14	15	7	7	6	6
	56	7	14	11	8	11	9	11	10	11	9
	57	8	11	7	3	6	11	4	8	11	4
Da-dhara Sankardev High School	58	5	6	12	5	3	11	5	5	4	10
	59	8	9	9	5	2	14	3	7	3	5
	60	8	9	10	7	9	13	8	8	8	8
	61	9	12	10	7	6	13	6	9	5	11
	62	4	5	4	2	1	8	0	1	0	2
	63	7	12	12	9	3	13	7	9	6	7
	64	1	2	2	0	0	5	0	1	0	1
Howajan Academy	65	0	2	2	0	0	5	0	2	0	1
	66	2	2	1	0	2	2	1	1	0	0
	67	2	3	1	0	1	2	1	1	0	1
	68	2	0	0	0	1	2	0	0	1	1
	69	4	2	3	0	2	4	2	0	1	1
	70	1	1	3	0	0	0	1	0	1	0
	71	1	1	1	1	0	0	1	1	1	0
	72	2	2	3	0	1	3	1	0	1	0
	73	1	0	1	0	0	2	1	0	1	0
	74	3	2	4	2	1	4	1	1	1	0
	75	9	8	11	11	11	11	11	10	10	11
Balipathar Anchalik High School	76	14	12	15	13	11	12	13	12	7	12
	77	11	8	11	8	11	9	5	11	7	11
	78	11	11	11	7	11	9	12	6	9	10
	79	10	4	8	10	13	9	11	9	14	13
	80	9	11	10	11	12	12	12	10	9	14

Harmoti Pichala High School	81	8	13	17	13	13	13	16	10	14	15
	82	6	6	9	11	7	11	7	11	6	15
	83	6	10	11	9	8	10	9	7	6	13
	84	9	10	12	4	7	12	10	5	6	9
	85	10	15	16	14	12	15	18	13	13	15
	86	8	10	12	7	6	16	6	9	11	14
	87	11	11	9	10	9	9	10	8	7	7
	88	8	7	9	4	12	9	3	8	11	8
	89	0	0	0	0	0	0	0	1	1	1
	90	0	0	2	0	0	0	0	1	0	2
	91	3	2	4	0	0	5	0	3	1	4
	92	0	0	0	0	0	0	0	1	0	2
	93	0	7	5	0	0	3	0	0	1	6
	94	1	4	3	0	0	1	0	1	2	4
	95	1	1	2	4	1	2	0	1	0	5
	96	0	2	4	1	1	4	0	1	0	2
Pachim Simaluguri High School	97	4	3	4	2	1	5	4	3	2	3
	98	0	4	3	0	0	1	0	0	0	0
	99	5	6	7	4	2	3	6	4	1	5
	100	5	5	6	3	3	3	3	5	1	6
	101	4	3	4	2	5	4	0	2	1	5
	102	3	5	3	2	5	1	2	5	3	7
	103	12	2	5	2	0	2	4	6	3	5
	104	8	7	9	6	3	3	3	5	2	6
	105	14	11	14	13	6	7	6	5	3	7
	106	7	6	6	4	2	8	6	12	11	6
	107	2	14	10	6	0	5	6	5	6	6
	108	12	12	14	9	7	7	6	8	5	5
	109	5	13	7	12	8	11	10	7	6	13
	110	13	5	7	11	5	11	7	11	10	12
	111	11	6	9	6	9	6	10	14	9	9
Pakadol Gandhia High School	112	0	0	2	1	3	2	2	2	3	3
	113	6	4	5	7	1	5	2	1	5	4
	114	0	0	0	1	0	2	2	1	1	2
	115	0	0	2	2	2	3	2	0	0	2
	116	1	0	0	1	3	1	2	1	1	2
	117	0	0	1	2	4	3	0	1	4	2
	118	0	0	2	3	2	1	2	0	3	2
	119	0	0	3	4	3	1	1	2	4	2
	120	0	0	0	0	3	2	0	1	4	1
	121	1	1	0	2	1	2	1	1	4	1
	122	1	0	1	0	2	0	2	1	2	1
	123	0	0	2	4	1	5	2	1	3	0
	124	1	1	1	4	4	5	2	1	3	3
	125	0	0	2	1	1	3	1	2	4	3
	126	0	1	4	2	2	2	2	0	3	5
Pahumora High School	127	1	0	0	1	3	2	1	1	0	4
	128	0	0	3	2	4	4	3	1	1	2
	129	13	10	9	9	7	10	10	9	7	14
	130	11	11	15	10	9	6	7	10	5	14
	131	7	11	8	7	11	10	12	9	14	10
	132	4	14	10	11	11	10	7	8	13	11
	133	9	14	13	6	9	10	7	7	11	12
	134	11	9	14	11	9	9	8	10	7	12
	135	11	2	9	4	9	11	0	10	3	10
	136	1	4	5	2	3	2	1	6	0	6
	137	7	8	4	8	5	8	5	8	7	5
	138	10	2	7	1	2	9	8	8	8	6
	139	5	7	10	9	10	11	10	9	10	11
	140	6	11	13	7	6	14	9	10	10	14
Madhabdev Collegiate Higher Secondary School	141	10	12	14	7	8	10	7	14	6	11
	142	9	12	15	6	8	14	6	14	6	11
	143	11	11	15	8	7	10	6	14	6	12
	144	10	9	14	7	2	17	10	11	9	16
	145	5	7	12	5	4	8	7	5	4	9
	146	9	9	5	11	8	7	7	8	10	12
	147	6	10	13	7	10	14	10	7	11	11
Kadam High School	148	0	0	1	0	0	0	0	0	0	0
	149	0	2	1	0	0	0	0	0	0	0
	150	0	0	1	0	0	0	0	1	0	2
	151	0	2	0	0	0	0	0	0	0	1
	152	0	2	0	0	0	0	0	0	0	1
	153	0	0	0	0	0	1	0	0	0	1
	154	0	0	1	0	0	1	0	0	0	1
	155	1	0	1	0	0	0	0	0	0	1
	156	1	0	1	0	0	0	0	0	0	1
	157	0	3	0	0	0	0	0	0	0	0
	158	0	0	1	0	0	0	0	0	0	0
	159	1	0	1	0	0	0	0	0	0	0
Janapriya High School	160	5	11	11	5	1	11	3	11	7	11
	161	5	4	6	3	4	10	2	9	6	12
	162	7	13	12	9	3	9	5	5	9	11
	163	8	9	10	8	5	10	5	10	12	9
	164	9	13	10	6	2	10	7	9	9	10
	165	7	13	12	9	4	9	6	9	9	10

Narayanpur Adarsha High School	166	4	9	7	5	1	9	1	9	5	9
	167	4	9	7	5	4	8	1	9	6	7
	168	6	10	7	6	2	7	4	9	5	11
	169	8	7	10	5	2	9	4	8	3	7
	170	6	7	12	7	1	9	3	7	5	7
	171	8	10	11	6	3	10	6	8	4	8
	172	7	12	11	5	10	15	5	10	8	10
	173	3	6	5	4	4	7	7	8	5	5
	174	6	7	11	7	4	14	3	2	3	3
	175	9	12	13	9	3	10	7	10	4	13
	176	12	14	15	7	2	17	9	11	11	14
	177	6	9	10	7	5	12	2	10	6	15
	178	10	16	18	12	16	13	15	15	14	15
	179	11	15	13	11	9	18	6	12	6	9
	180	6	6	4	3	1	10	5	5	7	3
	181	8	16	13	7	6	12	7	9	11	12
Nowboicha Higher Secondary School	182	2	4	2	4	0	2	2	1	1	3
	183	2	0	2	2	1	6	0	2	0	1
	184	7	8	6	7	7	7	8	9	10	11
	185	8	9	4	8	5	6	3	7	1	8
	186	6	11	7	4	3	7	7	7	8	9
	187	2	4	3	3	2	9	2	1	2	4
Lakhimpur Collegiate High School	188	10	10	10	12	7	14	10	12	7	12
	189	5	9	13	2	7	5	6	7	8	9
	190	8	14	13	9	6	12	9	10	8	11
	191	8	13	13	3	2	10	5	4	9	9
	192	7	12	14	7	8	13	11	11	11	6
	193	9	11	8	11	13	14	5	8	10	11
	194	9	15	13	6	3	12	6	11	10	15
	195	12	13	8	5	7	11	8	13	9	10
	196	12	17	11	5	10	14	7	7	8	9
	197	9	15	14	10	5	14	4	11	8	9
	198	9	8	10	9	12	8	8	12	8	15
	199	11	14	15	10	7	10	7	7	7	11
	200	10	10	12	9	9	13	6	12	12	8
	201	9	16	11	8	7	9	7	10	9	10
	202	8	12	13	8	11	12	9	8	10	9
	203	11	13	13	11	5	7	12	10	9	9
	204	9	13	16	6	8	13	7	9	9	10
	205	8	11	9	11	11	12	10	6	10	11
	206	7	13	14	7	8	12	8	11	9	11
	207	7	14	11	9	8	12	11	11	6	11
	208	4	8	11	5	1	4	2	4	1	2
Dihiri High School	209	11	13	10	12	5	11	8	8	13	9
	210	3	5	2	0	3	7	1	1	1	2
	211	3	2	5	1	2	13	0	4	3	6
	212	2	2	4	2	0	3	3	1	1	4
	213	10	10	11	9	9	13	6	11	8	16
	214	7	4	3	6	3	7	3	2	3	7
	215	8	7	8	6	2	7	2	6	2	3
	216	1	0	5	0	0	5	0	1	0	1
	217	5	5	8	2	7	6	3	4	5	11
	218	10	14	10	9	11	7	9	11	10	9
	219	14	15	14	11	11	15	15	16	13	16
	220	8	12	16	8	14	9	8	10	12	5
Dhalpur Academy High School	221	11	8	8	3	5	6	7	8	7	4
	222	8	8	8	3	3	5	2	6	3	5
	223	11	7	10	8	3	9	5	7	6	12
	224	5	4	9	4	2	11	6	7	6	5
	225	10	7	7	7	4	4	3	4	4	8
	226	10	5	5	9	5	3	6	6	4	5
	227	11	5	9	5	7	11	5	6	9	12
	228	5	9	7	4	3	12	4	4	5	10
	229	4	3	13	2	3	12	7	4	5	6
	230	5	4	13	2	2	10	2	8	8	10
	231	7	10	14	10	5	10	3	8	10	9
Udbastu High School	232	1	2	1	0	0	4	1	0	0	3
	233	1	1	1	1	1	4	1	1	0	4
	234	12	10	12	8	6	18	5	12	13	16
	235	8	13	13	9	10	18	8	13	8	9
	236	6	12	16	14	10	18	11	11	12	13
	237	19	5	12	5	2	15	11	16	8	7
	238	7	10	13	10	10	16	7	9	9	15
	239	9	11	8	4	7	13	4	6	7	7
	240	8	8	16	13	10	17	12	13	11	14
	241	6	6	11	7	11	12	11	9	7	10
	242	9	13	12	10	12	15	9	11	9	13
	243	11	13	8	13	16	9	10	14	10	10
	244	7	11	10	7	17	10	6	11	11	16
	245	12	15	13	9	11	13	13	14	12	13
Lohit Dikrong Higher Secondary School	246	2	0	0	0	2	9	1	1	2	1
	247	0	4	4	2	2	7	0	2	4	4
	248	0	0	5	0	0	0	0	0	1	0
	249	1	0	1	2	0	3	0	0	1	1
	250	0	0	1	2	0	3	0	0	1	0

Simaluguri Higher Secondary School	251	1	3	10	1	0	3	0	4	1	0
	252	4	3	7	0	0	6	1	1	1	2
	253	8	5	8	4	3	8	3	3	0	7
	254	4	7	4	4	2	7	2	4	1	7
	255	2	3	6	1	2	0	1	4	0	5
	256	4	3	5	2	1	7	1	4	0	8
	257	9	9	16	11	2	12	8	10	8	7
	258	11	9	16	11	2	11	5	9	11	6
	259	9	11	14	9	7	11	8	9	10	11
	260	12	8	15	8	5	10	7	12	9	10
	261	11	11	15	9	7	10	7	11	7	10
	262	7	9	11	10	6	14	10	12	10	11
	263	9	7	14	6	11	13	7	8	9	14
	264	9	10	15	4	6	13	8	11	12	10
	265	7	12	12	7	7	13	7	12	10	13
	266	9	11	18	8	4	9	7	12	13	8
	267	10	10	17	9	3	13	3	9	10	9
	268	11	12	15	10	7	11	5	12	8	8
Boginadi Girls' High School	269	1	6	6	3	1	5	3	2	2	10
	270	7	8	9	7	4	6	6	5	9	11
	271	3	3	3	0	1	1	2	2	0	2
	272	4	5	5	3	4	3	5	2	5	6
	273	7	9	15	6	2	13	2	11	6	8
	274	1	4	1	0	1	2	0	0	1	1
	275	2	4	2	0	1	2	1	2	1	2
	276	4	3	1	4	5	9	6	6	4	4
	277	9	13	7	7	4	16	3	7	4	13
	278	7	3	5	0	3	0	2	0	0	2
	279	10	4	5	6	4	5	3	4	8	11
	280	1	1	0	0	0	1	0	0	1	1
	281	2	3	2	0	1	3	1	1	1	3
	282	8	5	8	4	3	4	4	3	4	4
	283	4	2	1	0	0	3	0	1	0	2
	284	4	3	1	1	1	1	2	2	0	3
	285	10	9	6	5	2	14	6	6	3	11
	286	3	5	11	6	3	13	7	5	3	9
	287	2	3	1	1	1	1	0	0	1	0
	288	6	9	5	8	3	9	2	7	5	10
	289	0	4	4	0	2	5	2	0	1	2
	290	0	3	1	0	1	2	1	2	1	2
	291	0	3	1	0	0	0	0	0	1	1
Rangati Higher Secondary School	292	11	12	14	11	6	15	13	13	11	13
	293	6	12	16	7	3	12	5	11	7	10
	294	6	10	8	4	5	8	3	6	5	7
	295	11	11	14	7	5	14	7	9	6	14
	296	9	10	14	7	9	11	7	8	8	8
	297	8	13	19	7	6	11	7	9	9	11
	298	9	11	13	12	13	10	4	11	7	10
	299	7	16	12	12	6	10	7	9	7	11
	300	10	8	13	9	5	10	6	9	6	13
All Assam Miri High School	301	3	5	11	4	2	5	1	1	2	1
	302	3	5	12	4	2	4	2	4	1	1
	303	0	5	5	0	0	0	2	2	1	1
	304	2	4	5	2	2	3	2	3	2	1
	305	8	8	13	5	6	4	3	5	3	2
	306	2	4	6	4	2	2	2	1	0	2
	307	6	5	12	4	3	5	5	4	3	3
	308	1	4	5	0	1	1	0	0	0	0
	309	3	8	10	5	2	2	6	5	2	1
	310	0	2	4	0	0	0	0	1	0	0
	311	3	5	7	3	2	2	1	2	1	0
	312	4	6	8	4	2	2	2	0	2	1
	313	2	5	8	3	2	1	2	3	2	1
Avanari Janajati High School	314	0	0	2	1	0	1	0	1	0	1
	315	3	5	13	4	0	3	0	3	1	0
	316	5	9	11	4	3	3	1	2	4	2
	317	2	6	10	2	3	4	0	0	4	2
	318	3	3	7	2	2	2	0	1	0	1
	319	3	5	6	4	3	6	4	3	2	1
	320	5	5	11	6	4	4	4	5	3	2
	321	2	1	4	2	2	2	0	0	0	0
	322	5	4	11	4	3	2	3	5	0	3
	323	3	3	6	3	1	4	3	2	2	2
	324	5	4	8	4	1	4	4	5	2	2
	325	2	5	6	4	2	3	2	2	2	0
	326	4	5	11	5	6	6	5	3	2	1
Missing Rengam High School	327	2	5	7	3	6	3	3	3	3	1
	328	2	4	9	4	4	6	6	4	3	1
	329	5	11	14	8	8	6	7	6	6	6
	330	5	6	7	2	1	2	2	3	2	0
	331	5	10	15	4	4	3	2	4	3	1
	332	0	3	4	0	0	0	0	2	2	0
	333	0	2	5	1	0	3	2	2	0	0
Borkha Baghmora High	334	10	12	9	10	6	8	8	10	11	7
	335	9	8	12	13	10	9	9	9	8	12

School	336	3	6	8	9	10	2	3	5	5	4
	337	3	7	5	2	3	2	2	1	3	1
	338	5	10	8	5	14	3	3	5	4	3
	339	5	8	13	12	11	10	9	8	10	10
	340	10	15	11	10	11	9	7	8	11	11
	341	7	9	12	7	12	8	10	7	11	12
	342	5	10	9	10	13	7	7	8	10	5
	343	2	10	10	10	14	7	5	5	12	10
	344	12	9	14	12	10	13	13	8	10	9
	345	6	10	9	10	9	6	8	8	9	4
	346	10	12	14	8	14	11	5	10	10	7
	347	8	12	14	5	14	8	8	6	8	6
	348	10	10	10	5	12	7	7	6	10	8
	349	10	9	11	9	14	10	11	11	12	11
Brahmaputra Collegiate Girls' High School	350	9	16	15	9	13	6	6	6	9	3
	351	11	9	12	7	8	7	6	7	8	10
	352	5	9	5	4	8	3	3	2	5	3
	353	10	6	7	7	8	7	7	10	5	8
	354	10	8	8	8	5	8	6	10	7	7
	355	8	13	13	11	10	8	4	7	11	6
	356	7	10	13	6	13	4	7	9	13	5
	357	8	10	10	11	13	11	6	12	12	11
	358	9	14	9	6	6	5	5	10	6	4
	359	9	17	15	10	15	10	13	9	12	14
	360	2	11	13	4	2	4	4	4	8	4
	361	0	4	3	1	3	0	0	1	0	0
	362	0	3	2	1	1	0	0	1	0	1
	363	0	3	1	1	0	0	0	1	0	0
	364	1	1	1	0	1	0	2	3	0	3
	365	1	1	5	1	0	0	1	0	0	1
	366	2	1	2	3	0	2	0	0	0	1
	367	0	2	5	1	0	0	1	1	0	2
	368	0	1	10	0	1	0	0	3	0	0
Dangdhara High School	369	0	2	2	1	1	0	0	1	0	1
	370	0	3	1	1	0	0	0	1	0	1
	371	1	0	2	1	0	0	0	0	0	0
	372	0	1	5	3	0	3	3	1	4	1
	373	12	16	15	10	10	8	14	9	12	11
	374	0	0	3	3	1	0	2	0	1	1
	375	3	6	6	4	6	4	6	2	5	6
	376	0	2	2	2	4	4	2	3	2	3
	377	1	0	2	0	5	3	2	2	3	2
	378	0	1	1	2	1	3	1	2	3	1
	379	1	1	4	0	0	2	0	2	2	0
Gandhia High School	380	1	2	1	1	5	1	2	3	0	1
	381	2	2	3	2	1	1	2	3	2	3
	382	1	4	4	0	1	1	0	0	0	1
	383	4	8	4	0	4	4	2	3	4	1
	384	7	12	9	12	11	9	9	6	11	8
	385	5	15	10	4	6	1	1	2	6	5
	386	6	14	11	6	9	8	9	16	9	9
	387	12	13	12	10	11	10	10	10	8	5
Ghunasuti High School	388	8	11	6	10	12	8	10	12	9	6
	389	9	17	15	12	14	13	14	12	14	12
	390	6	14	11	9	7	2	1	4	10	5
	391	11	10	6	5	9	8	7	10	6	7
	392	5	11	11	5	15	7	8	3	9	6
	393	4	11	12	5	5	1	6	6	3	3
	394	3	15	9	2	2	1	0	2	2	7
	395	9	8	8	4	7	4	2	5	4	4
	396	9	13	11	11	13	8	8	7	10	10
	397	9	14	10	11	13	8	8	8	10	10
	398	6	16	15	8	6	4	3	5	9	6
Jamuguri Chariali High School	399	6	16	13	8	7	5	3	5	8	6
	400	14	6	12	10	6	6	5	4	10	12
	401	8	11	13	10	10	9	10	8	9	11
	402	2	3	3	4	8	1	3	2	4	2
	403	4	7	12	3	9	1	1	4	7	3
	404	9	12	12	6	11	10	12	9	10	7
	405	10	12	14	8	13	10	7	8	7	10
	406	10	11	16	4	17	4	12	5	12	10
	407	4	8	12	14	11	0	3	6	8	5
	408	2	7	11	4	6	0	2	2	2	4
	409	5	13	10	3	7	6	1	5	10	8
Jugisuti Tribal High School	410	8	15	13	11	10	5	3	8	13	7
	411	9	15	13	9	8	8	8	3	11	7
	412	4	11	13	6	14	0	3	3	3	2
	413	5	14	12	3	10	0	4	2	1	2
	414	4	9	10	5	2	4	4	5	2	2
	415	1	8	11	6	6	1	4	6	9	6
	416	0	8	5	2	4	0	1	4	0	2
	417	0	3	5	2	1	1	1	4	6	1
Kathalpara High School	418	1	15	6	1	8	1	0	1	6	4
	419	0	3	0	0	1	0	0	0	0	0
	420	1	0	1	1	0	0	0	0	0	0

Medhisuti High School	421	0	0	0	0	1	0	0	1	0	0
	422	0	0	1	0	1	0	0	0	0	1
	423	0	0	0	0	1	0	0	1	0	0
	424	0	0	0	0	0	1	1	0	0	0
	425	0	1	0	0	2	0	0	0	0	0
	426	0	0	0	0	1	0	0	1	0	0
	427	0	0	1	0	0	0	0	1	0	0
	428	5	10	14	8	15	11	6	13	7	8
	429	8	4	10	7	9	5	6	7	5	6
	430	8	9	11	8	11	5	7	11	8	4
	431	6	8	9	5	7	6	4	7	7	1
	432	8	11	10	11	11	11	9	10	13	8
	433	7	8	8	4	11	2	2	0	3	5
	434	10	8	11	6	17	8	8	8	9	6
	435	10	9	13	14	10	10	9	10	11	12
	436	3	5	5	6	6	4	2	7	5	13
	437	9	11	12	10	11	9	11	12	14	9
	438	2	4	2	1	1	1	2	0	3	1
N-Ali High School	439	15	17	12	11	13	6	13	12	11	9
	440	9	5	6	6	10	10	8	5	10	9
	441	7	9	10	8	8	7	7	8	8	5
	442	6	9	14	9	13	10	9	5	12	12
	443	12	10	13	11	9	9	10	8	11	14
	444	7	9	8	9	12	10	10	6	14	10
	445	8	13	11	14	18	13	16	13	17	14
Pachim Machkhowa Girls' High School	446	8	7	10	6	7	8	9	10	12	9
	447	6	8	13	12	10	11	12	11	8	9
	448	10	10	10	7	12	10	10	10	7	14
	449	5	15	15	11	9	10	8	5	12	10
	450	10	10	16	3	10	14	6	12	6	9
	451	8	12	13	8	12	8	8	7	11	5
	452	9	11	12	10	10	7	10	11	17	8
	453	5	7	7	3	9	8	5	6	8	5
	454	8	12	10	6	14	7	3	5	11	5
	455	13	16	10	7	11	10	10	11	14	15
	456	7	7	9	6	10	3	1	4	3	4
	457	6	15	14	6	14	6	6	11	10	10
	458	9	15	16	9	11	6	8	10	9	10
	459	6	12	16	9	11	8	6	10	7	6
	460	0	0	1	0	1	0	0	0	0	0
	461	7	12	11	12	11	3	2	6	11	8
	462	6	11	13	9	12	5	3	10	12	10
	463	6	13	9	13	9	5	5	7	9	8
	464	8	10	11	13	9	4	4	8	10	7
	465	8	12	9	10	10	5	3	7	9	5
	466	4	9	10	7	9	2	3	6	10	6
	467	7	10	7	9	9	4	5	4	9	8
	468	7	10	11	9	11	2	3	9	11	6
	469	3	6	8	6	6	2	5	5	6	5
	470	4	9	11	8	11	3	5	7	11	4
	471	0	2	3	0	0	0	0	0	0	0
	472	6	8	6	1	1	4	2	0	0	2
	473	5	7	8	2	3	8	1	4	3	2
	474	0	0	2	0	1	0	0	0	0	0
Rengam Champara High School	475	1	2	4	2	2	1	8	3	3	2
	476	5	10	11	6	4	5	2	5	3	3
	477	3	8	8	1	1	3	4	1	3	3
	478	0	9	8	2	3	2	2	2	1	1
	479	5	12	8	6	6	1	3	3	5	4
	480	5	11	10	8	10	3	6	6	6	4
	481	1	1	5	1	2	0	1	2	4	1
	482	0	2	2	0	2	2	1	0	0	0
	483	2	4	6	3	6	1	2	5	3	4
	484	8	5	8	5	6	4	4	9	8	3
Sarboday High School	485	6	7	7	7	6	3	2	11	7	5
	486	4	6	7	7	4	3	5	1	5	4
	487	3	8	10	4	3	3	6	5	3	5
	488	7	5	11	5	14	0	3	5	3	10
	489	11	17	14	15	17	10	13	8	13	13
	490	12	19	18	16	19	13	14	10	10	11
	491	5	8	10	11	10	6	10	4	5	6
	492	3	2	8	5	4	2	4	1	2	7
	493	8	10	10	10	12	2	6	7	11	7
	494	3	7	12	7	9	1	2	3	6	5
	495	10	14	9	9	10	13	10	13	5	10
	496	1	9	8	8	10	5	10	5	10	7
	497	9	11	7	12	9	12	12	9	9	5
	498	14	14	16	9	12	8	8	15	10	15
Subansiri Kaiwarta High School	499	0	5	0	1	0	0	0	0	0	0
	500	10	15	10	10	14	7	3	12	9	8
	501	2	0	1	3	9	1	1	2	2	2
	502	4	15	9	8	9	3	4	1	6	7
	503	10	14	14	4	14	6	4	12	12	6
	504	7	6	8	8	7	5	5	6	9	9
	505	1	1	3	0	2	0	2	2	0	0

Telahi Subansiri High School	506	5	4	8	3	9	10	3	6	5	4
	507	1	3	4	3	2	5	2	2	2	1
	508	1	3	1	0	0	0	0	0	0	0
	509	3	4	4	6	4	8	8	5	10	8
	510	1	6	2	0	0	1	0	0	1	0
	511	10	8	8	7	13	8	7	12	7	10
	512	6	2	3	3	8	4	0	1	1	1
	513	0	2	5	3	6	1	3	4	1	1
	514	8	6	8	6	14	1	1	5	5	4
	515	3	5	4	4	3	1	2	6	1	6
	516	6	11	14	14	12	5	7	10	8	11
	517	11	13	15	14	6	5	7	9	7	12
	518	5	12	11	4	6	10	9	6	9	10
	519	5	13	18	11	10	1	9	10	10	12
	520	12	9	16	11	13	6	6	11	8	7
Uttar Dhakuakhana Girls' High School	521	10	9	12	7	8	10	9	12	13	5
	522	8	8	15	13	14	8	10	6	8	10
	523	5	14	17	9	9	7	7	12	9	9
	524	9	10	6	10	7	12	9	10	10	11
	525	7	16	15	8	17	6	12	8	13	9
	526	8	12	15	10	14	9	7	6	10	8
	527	15	17	16	14	19	18	10	18	11	13
	528	8	9	14	8	13	8	8	10	13	9
	529	12	15	12	13	11	10	12	8	13	13
	530	2	8	7	8	1	2	5	8	6	9
	531	2	4	7	0	2	1	0	2	1	0
	532	4	3	6	2	3	2	1	2	1	1
	533	3	3	5	1	2	3	2	3	0	1
	534	6	10	10	7	7	8	10	8	8	10
	535	5	5	8	6	11	1	6	2	8	1
	536	3	3	11	2	7	0	0	1	2	0
	537	5	11	8	8	14	9	8	11	14	7
	538	3	3	2	1	4	0	3	1	1	0
	539	12	8	13	10	11	8	9	6	11	7
	540	5	4	6	1	8	1	3	0	7	2
	541	0	8	6	2	2	0	0	1	1	2
	542	6	3	8	8	10	8	5	8	1	4
	543	2	7	9	3	1	2	6	3	3	1
	544	6	11	4	1	6	1	2	1	5	2