CHAPTER I
THEORITICAL BACKGROUND

1.0 INTRODUCTION

Computers and related technologies are now in almost every school across the nation. State reform efforts include the integration of technology in curriculum standards and sometimes make technology skills a separate standard for students to achieve. With respect to this, education programs and their contents have an important part to play. The use of new technologies in schools permits to create an interactive environment with the computers, which is important in better academic performance. At the same time, the views surrounding technology in the schools are diverse. A comprehensive skill repertoire for schools in one stop solution for all that is required to be integrated into school education to prepare them better for challenges of school education and enable them to develop skills essential for increasingly competitive world of higher studies.

1.1 COMPUTER EDUCATION

There was a time during the 1970s and '80s when computers were mainly used by governments and businesses. The huge improvements in technology since then mean that computers have become smaller, more powerful, and cheaper and used in most households. As the global economy changes, the way people live their daily lives, the importance of computer education grows. Workers not only need to learn how to use computers, but they also need to keep improving their skills to ensure that they stay up-to-date with changes. As such Computer technology has become an integral part of modern life and contemporary education. When
computers are widespread, they are also a part of education and it is used in schools for many applications from typing and writing papers to searching the internet for information. Computer skills are also a subject taught in many schools, especially from adolescence onward when the ability of abstractions forms as cited by Chris Seabury in his Importance of Computer Education.

Students of computer education acquire basic skills in operating the computer's basic functions. This is referred to by educators as "operational" computer literacy, according to "Computer Education" by U.K. Singh and K.N. Sudarshan. Operational literacy involves learning the components of the computer and their functions, such as the monitor, mouse, keyboard, central processing unit (CPU) and modem. Students also learn to work with the computer programs, such as word processors and Web browsers. USA Today remarked “Until school boards and administrators begin to budget adequately for technology equipment and ongoing staff development, educators will be losing the battle. Most schools, including colleges and universities, do not have budget models yet that take into account equipment depreciation and the need for equipment and software upgrades that have become routine in most business environments. School boards should be seeking the aid of local corporate leaders to help their administrators learn the ropes of budgeting for technology needs.” A remark of Kids Source Online, "Research has shown that 3- and 4-year-old children who use computers with supporting activities that reinforce the major objectives of the programs have significantly greater developmental gains when compared to children without computer experiences in similar classrooms-gains in intelligence, nonverbal skills, structural knowledge, long-term memory, manual dexterity, verbal skills, problem solving, abstraction, and conceptual skills."
Computer education according to yourdictionary.com defined it as a noun and states it as the process of learning or teaching about computers. An example of computer education is a class on how to use Hyper Text Markup Language (HTML).

What is the meaning of Computer Education? An article of Mitchell (2006) states Computer education is necessary because students will continue to use computer technology in their academic and professional lives.

1.1.1 NEED AND IMPORTANCE OF COMPUTER EDUCATION

Computer education has been in use in education for years and the government sanctions large amount of money to foster technology. However, it is still a debated issue whether computer technology makes a difference in students learning outcomes. Winer & Mothe (1987) are of the view that student leaving school will meet with computer in every phase of their lives therefore; they must be prepared to deal with them. The range and quality of experience gained in school certainly influence attitudes toward computers and positive attitude towards computer technology will be an asset in an ever more competitive employment market. Thus, schools train for computer skills because it is a fundamental access and enables them for the digital ways of the 21st century education and workspace.

There is another aspect to computer education that is inextricably linked with the access and the 21st century ways knowledge.

Wiburg (1991) examines the use of technology from point of the teachers in education. The content reflects what students should know about the use of this gadget, the changes of teachers about their roles, new evaluation methods, and development of computer-based courses. The article includes the importance of technology and changeable role vision of teachers based on the technology included
courses. Maddux, Johnson & Willis (1997) reflects the role of computers in education, that besides the role of computers in education, computers have particular roles in society and in schools. With the technological success and change, computers become to have powerful place in society and education. The concept of working speed, efficiency, power, and the removal of human error from work activities carry us to intensify on the technology and computers. Computers increase the human interaction within the educational context. Therefore; Educational computing is an exciting new discipline whose effectiveness will depend on how today’s teachers in training use computers in their own classrooms in the future.

The role of computers in education a reflection by Forcier (1996) points in here that students should be in consciousness of the place of computer application in education, strategies for using computers, instruction, learning and issues, trends in information technology in order to shape right and concrete attitudes for technology and computers in instruction. The most important reflection is that computer application in education provides student-centered learning instead of teacher centered learning and learning becomes based on constructivist approach in order to create motivation and communication within instruction by the help of the computer and high technology materials.

1.2 COMPUTER ATTITUDE

Allport (1935) defined the concept of attitude in general as “An attitude is a mental and Neutral state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which it is related.” In other words attitude is determined by experiences and impacts upon the individual’s behavior.
Computer attitude has been defined as person’s general evaluation or feeling of favour or antipathy towards computer technologies and specific computer related activities (Smith et.al 2000). Attitude towards computers covers the students’ feelings, beliefs and perceptions towards general computer use, computer assisted instruction, programming and technical concepts, social issues surrounding computer use and computer history. The modern psychology has emphasized the role of user’s attitude and anxiety; these two are the factors that affect the knowledge of computers among individuals.

Fishbein & Ajzen (1975) introduced a theory, which proposed that, computer attitude affect user’s behavioral intentions (future desires) that in turn affect actual computer usage (experience). Attitude can be thought as the father of action and is formed in response to certain personal or interpersonal factors; the social environment also determines attitudes. Same is true regarding the students’ attitude towards computers. Researchers like David (1995), Harrison, Dominic & Barbara (1999) and many any others have identified several factors which can affect attitude towards computers; these variables include gender, grade, age, personal computers, physical facilities at college.

Attitudes can be examined at different levels of generality depending on the action, target, context and time elements being evaluated (Smith et.al, 2000). Specifically a person’s attitude towards computer is influenced by a variety of aspects for example the social issues relating to the computer use (Popovich et.al., 1987), computer liking, computer confidence, computer anxiety or comfort (Loyd & Gressard,1984), achievements (Bandalos & Benson,1990), usefulness and value (Francie & Evans,1985).
According to Divine & Wilson (1997), developing positive attitudes among the students is more critical than merely increasing students’ computer skills because “positive attitudes will automatically lead to the learning of computer skills”. Students’ attitudes toward computers must be clearly identified so that recommendations can be made to the relevant parties, such as, teachers, school administrators, administrators at the educational department level and also curriculum planning groups. The information will allow them to gain insights on best approaches computer technologies for teaching and learning.

Positive attitude enhances the learning process (Shneiderman, 1980) specifically the Motivation to learn and the ability to retain information in given situations (Jawahar & Eango, 2001). A negative attitude may lead to computer resistance (Shneiderman, 1980). A person’s attitude towards computer and related technology could determine his/her performance with the technology and the satisfaction he/she draws with the experience.

1.3 HISTORY OF COMPUTER EDUCATION

The First Computers- The history of the modern computer age is a brief one. It had been about 60 years since the first operational computer was put into use: MARK 1 in 1944 at the University of Pennsylvania. Earlier use of computers in education was primarily found in mathematics, science and engineering as a mathematical problem-solving tool, replacing the slide rule and thus permitting students to deal more directly with problems of a type and size most likely to be encountered in the real world. In 1959, at the University of Illinois, Donald Bitier began PLATO, the first large scale project for the use of computers in education. The several terminal systems served undergraduate education as well as elementary
school reading, a community college in Urbana and several campuses in Chicago. Thus, the era of computers in education began.

**The Microcomputer**- Initially because computers were expensive, educators purchased time shared systems and adopted procedures to ration or restrict usage to provide access to as many people as possible given with limited resources. In 1975 a remarkable thing happened, the economics that once favored large time shared systems shifted to low-cost microcomputers and thus the personal computers revolution began. By the late seventies personal computers were everywhere at the office, the school room, in laboratories and libraries. The computer was no longer a luxury, but was now a necessity for many schools and universities. What began as a grass root revolution driven by students, teachers and parents, is now a new educational imperative as important as having books and libraries as cited by Andrew Molnar in his Computers in Education: A Brief History.

Computers have been put to a widespread use for educational purpose in the advanced countries especially with the advance of the relatively cheap microcomputer; the technology has become more popular with the Computer Assisted Instruction (CAI) and has already been in use. In the developing countries the CAI is yet to be fully implemented.

### 1.4 COMPUTER EDUCATION IN INDIA

India has the largest education system in the world. The school education sector is even larger with 1.4 million private and government schools in various states of India. As per India Infrastructure Report, 2012 the Gross Enrolment Ratio (GER) at the secondary level was at 63%. The computer literacy in schools was introduced in our country through a pilot project called Computer Literacy and
Studies in Schools (CLASS) in 1984 under the 6th fifth year plan, by the Government of India as joint venture of Ministry of Human Resource Development (MHRD) and the Department of Electronics. The Committee constituted of the members drawing from Indian Institute of Technology (IIT), NCERT, CBSE and Kendriya Vidyalaya Sangadhan. The Committee was assigned to work out the details of the teacher training programmes, curriculum for students and other academic activities proposed to be undertaken. The National Policy of Education (1986) states “computers have become important and ubiquitous tools, a minimal exposure to computers and training in their use will form parts of professional education. These revision aids of 1986 are a new phenomenon but this was the beginning in using computers in our Indian school system.

In India at the National Meet (1992) held at New Delhi it emphasized the importance of computers in various fields because of its multipurpose utility. As such there was a need of computer education in its totality starting from school education to higher education keeping pace with the changing technology. The expert meet recommended that computer education be introduced from 1st to 8th standard. About 80 per cent time be devoted to learning with computer and 20 per cent time to know about computer; before 8th standard, instruction be non-verbal; in the 9th and 10th standards 50 per cent of time be devoted to learning computers; and between 10th and 12th standards computer education be offered as an elective subject. It also highlighted that hardware must be adequate to curriculum and be able to run all the software available for that level.

In the recent years in order to bring the Universalisation of Elementary Education under the Sarva Shiksha Abhiyan (SSA) launched all over the country in 2001, it stress the importance of computer education. It states that, Programmes of
computer literacy will be organized on wide scale from the school stage.” The National Curriculum Framework, (NCF), 2005 support the judicious use of technology which can increase the reach of educational programmes of young learners.

1.5 SCENARIO OF COMPUTER EDUCATION IN NAGALAND

Computer education was launched in 2004-05 in Nagaland under the Sarva Shiksha Abhiyan (SSA) and implementation of Information and technology during 2006. It is a centrally sponsored scheme where the government of India supports 90% and the state government 10% of the cost of the project. The project conveyed schools to have a computer lab and the educational programme the sole responsibility of the school authority with duration of 5 months.

Another scheme that was also implemented in Nagaland is the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) which was launched in March, 2009. Its objective was to enhance access to secondary education and to improve its quality. The implementation of the scheme started from 2009-10. One of the important quality intervention provided under this scheme is an ICT enabled education that is to provide assistance to state government for computer education and computer aided education.
1.6 THE PLACE OF COMPUTER STUDIES IN THE SECONDARY SCHOOL CURRICULUM IN NAGALAND

National Curriculums Framework, NCF (2005) stresses on Computer Science as in the following paragraph:

“The tremendous effectiveness of the computer and computing technology in shaping modern society has created the need for an educated public that can utilize such technology most effectively for the betterment of society and humankind. There is, therefore, a growing realization of the need to have a place for these domains of knowledge in the school curriculum. A distinction must be made between the Information Technology (IT) curriculum, which involves the use and application of tools of the information and computer age, and the Computer Science (CS) curriculum, which is concerned with how these tools are designed and deployed. Both of these have their place in school education. While several countries have implemented CS and/or IT curricula in schools, we need to be aware of the challenges that Indian school students face. The first of these is the paucity of technology resources for computer science. It is absurd to teach computer science (let alone computer usage) without access to computing resources. Providing computer access and connectivity for all children is a tremendous technological and economic challenge. However, given the pervasive impact of computer technologies, we need to address this infrastructure challenge seriously and explore viable and innovative alternatives with regard to hardware, software and connectivity technologies appropriate for rural and urban Indian schools. We also need to address the issue of the development of a comprehensive and coherent curriculum model in computer science and IT, which can serve as the basis for the beginning of a discussion between educators, administrators, and the general public.
Certain core elements are common to several CS and IT curricula, and are applicable to Indian schools as well. These include the concepts of iterative processes and algorithms, general problem-solving strategies arising from computing, possibilities of computer usage, the place occupied by computers in the modern world, and the societal issues that arise thereby."

Under the Nagaland Board of School Education (NBSE), Computer education is provided as a sixth subject as Introductory Information Technology in the secondary level. This became effective from the academic session of 2007 for class 9 and the academic session 2008 for class 10. It keeps its Objectives as:

1. To familiarize with basics of information technology.
2. To develop basic skills of using tools for word processing, presentation and database management
3. To appreciate the use of IT in various domains.

As prescribed in the syllabus of the board published in 2006. The following consist of the theory syllabus:

The course provided in Class IX as in NBSE course:

(i) Basic of Information Technology.
(ii) Information Processing Tools.
(iii) MS Word, PowerPoint, Excel

The course structure consists of both theory and practical. Students are assessed on continuous and comprehensive basis on the given topics. The NBSE board prescribes the following pattern of IT subject syllabus: Part-A: External, Theory of 40 marks and Part-B:

Internal, Practical’s of 60 marks. In most of the cases the practical portion is carried out in the school Computer Laboratory having one class and two classes in
some cases in the school routine per week. However generally, and taking it overall the ratio of student-computer usage still remains a concern to be taken in, though the issue is comparatively better in the private run institutions than government institutions.

The CBSE curriculum focuses that the major contents of each curriculum learning area in Secondary classes for Science and Technology includes Computer Sciences for gaining knowledge about technology. It will focus on knowledge and skills to develop a scientific attitude, use and application of such knowledge and skills to improve the quality of life and further use this learning to analyses, evaluate, synthesize, create, invent and discover.

Under CBSE the subject falls as Foundation in Information Technology. The general instruction states as:

1. The units specified for each term shall be assessed through Formative Assessments and Summative Assessments.

2. In each term, there will be two formative Assessments (FA1, FA2 in first term and FA3, FA4 in the second term), each carrying 10% wieghtage.

3. The Summative Assessment in the first term (SAI) will carry 20% weightage and the Summative Assessment in the second term (SA2) will carry 40% weightage.

4. Hands-on skills and projects will carry 40% of the 10% weightage in every Formative Assessment.

5. Assessment of practical skills through MCQ will carry 20% weightage in every term end as Summative Assessment.
Table 1.1

THE COURSE STRUCTURE FOR CLASS IX –TERM 1

<table>
<thead>
<tr>
<th>TERM 1</th>
<th>3 HOURS</th>
<th>80 MARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIT 1</td>
<td>DESCRIPTION</td>
<td>THEORY</td>
</tr>
<tr>
<td>1 Basics of Information Technology</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>2 Information Processing Tools</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>3 IT Applications</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td><strong>Total Marks</strong></td>
<td><strong>80</strong></td>
<td></td>
</tr>
</tbody>
</table>
The term 11 practicals consist of:

(a) Hands on Experience

(b) IT Application Report File

(c) Viva Voce.

The present *All India School Education Survey*, seventh in the series of All India Educational Surveys (AIESs), was conducted with reference date as 30 Sept 2002 gives the details of Management wise number of schools having computer facility in Nagaland as of 2002.

**TABLE 1.3**

<table>
<thead>
<tr>
<th>STATE</th>
<th>AREA</th>
<th>TOTAL NO. OF SECONDARY SCHOOLS</th>
<th>COMPUTER EDUCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAGALAND</td>
<td>RURAL</td>
<td>162</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>URBAN</td>
<td>94</td>
<td>37</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>256</td>
<td>71</td>
</tr>
</tbody>
</table>

Source: NCERT.nic.in

The total number of schools providing computer education was 34 for rural and 37 for urban places.

In recent years researchers have found that the technology can be an important component for creating exciting new learning environments for students, once again dependent on other factors such as:

(i) Lower student to computer ratio;

(ii) Extensive teacher training and planning time;

(iii) High levels of technological support.
Unfortunately, these factors are often missing in school technology implementation efforts, resulting in inconclusive research findings of the effects of these environments on student learning. Sometimes schools make large purchases of technology for classrooms but ignore the accompanying teacher training. At other times resource are wasted as teachers receive training only to return to a classroom with limited or no access for the students. Mastering computer technology and harnessing it for widespread and comprehensive use among the students is not an easy task. This becomes even more challenging when this technology is progressing and changing rapidly. Students need to have the right kind of attitudes to be able to keep up-to-date with the rapid changes that occur in computer technologies.

1.7 A GLIMPSE OF DIMAPUR

Dimapur is a district of Nagaland which derives its name from the Dimasa Kachari dialect. Literally, Dimapur -'DIMA' means - great River, and ‘PUR’ means-city, altogether it means "City of Great River" in Dimasa Kachari dialect. Situated on the banks of the River Dhansiri, (originally known as Dong-siri meaning a ravine of peaceful habitation) It is located at 25°54′45″N Latitude 93°44′30″E Longitudes. The district is bounded by Kohima district on the east, Peren district in the south, Karbi Anglong district and the DAB (Disputed Area Belt) stretch of Golaghat district of Assam in the west and north. A large area of the District is in the plains with an average elevation of 260 m above sea level excepting the Medziphema sub-division and a few villages of Niuland sub-division, which are located in the foothills. The total area of Dimapur is 927 km² (Source- Deptt. of Land Record & Survey). Dimapur, a district of Nagaland out of the 11, is the 115th most populous city of the country. Latest estimates indicates that Dimapur has a
population of 3, 79,769 lacs as per 2011 census. The literacy rate is at 85.44%, where the literacy rate of males is 88.07% and females of 82.54%.

In India and within its different states including Nagaland, taking into particular Dimapur as one of the districts of Nagaland, which is taken for the purpose of this study a certain number of government schools and almost all private schools have introduced computer education for the benefit of the students. This at the secondary level is taken as a sixth subject under its respective board that is the Nagaland Board of School Education and other existing board that is the Central Board of School Education. The syllabus for the secondary education is taken care by Nagaland Board of school education and a few by the Central board of school education. But looking at the scenario at the status of computer use in schools of Dimapur it is seen that it used as a subject only and not as to develop a function level of skill of problem solving in various disciplines.

In Dimapur town it is seen that there are 25 Government schools and 132 private schools with a total enrollment of 18,660 secondary students for the academic year 2013. The school board pattern consists of both the Nagaland Board of School Education and Central Board of school Education with the majority of the school following the NBSE and few countable in CBSE. In all these schools Computer Education is provided in its curriculum and opted by those students taking as their optional paper. As such except in some few government high schools where either the computer laboratory does not exist or the computer teacher is not appointed, almost all private schools are imparting computer education through a proper computer laboratory.
1.8 NEED AND JUSTIFICATION OF THE STUDY

Although the task may seem daunting, it is crucial that schools begin to really delve into their use of technology in the classroom. The benefits are endless and schools are forced to face the fact that if they don't get on the technology bandwagon, they're going to fall behind. This does not mean that schools need to strive for a 1:1 ratio for students and computers, but schools do need to consider their technology programs and where they can begin and continue to broaden educational opportunities through the use of technology.

The question arises as to whether the already implemented computer education or Information technology (IT) as a school subject have any major implication in the academic achievement of the students especially at the stage of the secondary level. The period where the students make the crucial decision which stream of studies one will opt for higher studies. Be it in the in the arts, science, commerce or vocational courses. Looking into all this facet computer education provides the necessary skills and where its efficiency has become a necessity in terms of being a computer literate or even as one for opting as a future career in it.

This study is significant to education for several reasons. In the present scenario a number of secondary school students of Dimapur town have access to computers at home and often this have been a concern to the parents whether the students are making right used of it or not. Sometimes students instead of using the computer for their studies and academic works they are more drawn to games and social networking. Hence it is necessary to look into its effect in academic performance.

Further, computers and information technologies are rapidly becoming important components within societies and people’s lives globally. Thus, computer
education has become an integral part of the curriculum in schools and colleges not only worldwide but also in the context of Nagaland and Dimapur in particular. The need of computer education from school level arises now because of the wide opportunity that is provided in terms of knowledge and skills but mostly because of the job opportunity that is now facilitated by it. On the Job obtaining computer education will allow to remain competitive in a changing workplace. Globalization is making the workplace more competitive and employers need workers with detailed computer knowledge.

There are two important fields that can ascribe to the employment opportunity:

(a) Software skills \(\rightarrow\) in the software development.

(b) Hardware skills \(\rightarrow\) in the operational uses of the computer.

In both the skills it places one in the marketing fields, self-employment, in private and public sectors, multi-national companies (MNC) and many other sectors.

In Nagaland, computer education curriculum has been incorporated to all levels of the educational systems. Accordingly, the Ministry of Education spends a great amount of instructional resources to enhance teaching facilities to increase teaching effectiveness. However, besides teaching methods and facilities, learning attitudes of learners are also essential factors to determine the instructional effectiveness. Computer education as a subject is provided in both the school boards (NBSE and CBSE) existing now and taken as a sixth subject. The subject though has not been given as a main subject cannot be ignored for its importance as it has become more of a necessity in this 21st century period. Besides having to learn to read and write the use of computer has become such an integral part of the modern man that the term Computer Literate is becoming synonymous with one being a
literate. The impact of learning, imparting the skills and laying the foundation of what computers are at the level of secondary school stage can create a positive attitude towards computer education.

The question is that whether the kind of computer education provided in secondary schools has an indirect effect on the academic achievement of the students. There seems to be good trend however in the academic achievement of the secondary results. Though the course of computer as a subject came in only in the year 2007 the number of students opting for this paper is increasing every academic session as per the school records. This boost is also in terms of using computers at home for academic purpose after the formal instruction from schools depending upon the accessibility of computers at home.

It becomes necessary that just as learning the alphabets and numbers as a first step towards being literate and educated. So the need arises to lay the foundation as part of the school academic to train up a child in the operations of computers. Secondary school level comes during the adolescent’s age and also at a period as a school leaver. It becomes therefore essential that school leavers acquire a higher level of knowledge and skills as a necessity for this operational gadget to give a positive effect academically

There is however a need to study on this issue whether computer education actually have or can have an impact on the academic field of the students. How they can be achieved? What should be done to achieve this? What are the ways to maintain the continuity of these positive results? Taking the matter it becomes necessary to study the present scenario of the attitudes of the secondary students of Dimapur towards computer education in relation to their academic achievement.
1.9 STATEMENT OF THE PROBLEM

For the rapid development of computer and information technologies, the relevant computer courses have become the fundamental curriculum in Nagaland educational systems. The purpose of this paper was to discuss student’s learning attitudes toward computer courses that influence academic achievement. Computer use by students is getting more and more common every year. Students use computers for different tasks and reasons; they are tools in today’s academic environment. The computer is becoming more and more popular at schools and at homes. The impact of computer use by students cannot be overlooked. The study tries to identify those activities that showed a negative relationship with academic achievement and a list of activities that showed a positive relationship with academic achievement, so students can benefit from the data and make the best use of computer technology.

Therefore, the investigator has identified the problem and the problem under the present study has been entitled as: “Study of the attitude towards Computer Education in relation to the Academic Achievement of Secondary School Students in Dimapur Town”.

1.10 Operational Definitions of Terms

Computer Education: Computer education is the process of learning or teaching about computers.

Computer Attitude: Computer attitude has been defined as a person’s general evaluation or feeling of favour or antipathy towards computer technologies and specific computer related activities.
**Secondary Education**: Secondary education is the education provided at Class IX and X.

**Secondary Schools**: Secondary schools are schools which provide education up to Class X.

**Government Schools**: Government Schools are schools which are run by the Central or the state government.

**Private Schools**: Private schools are schools run by individual or group of trustees.

**Nagaland Board of School Education**: Nagaland Board of School Education (NBSE) is a board of school education in state of Nagaland. It is responsible for promotion and development of secondary education in Nagaland.

**Central Board of School Education**: The Central Board of Secondary Education (CBSE) is a Board of Education for public and private schools, under the Union Government of India. CBSE affiliates all Kendriya Vidyalayas, Jawahar Navodaya Vidyalayas, private schools and most of the schools approved by Central Government of India. The parent organization is the Ministry of Human Resource Development (MHRD).

**High Achievers**: High achievers are those whose scores academic performance is above average.

**Low Achievers**: Low achievers are those whose scores academic performance is below average.

**Academic Achievement**: Academic achievement is the capability to achieve academically. It is reflected by the percentage of marks obtained in Class IX and X examination conducted by NBSE and CBSE.
1.11 OBJECTIVES

The following are the objectives of the study:

1. To find out the attitude of students towards computer education with accessibility of computers at home.

2. To find out the computer education attitude between:
   b). High Achievers and Low Achievers.

3. To find out the academic achievement between:
   a). Male and Female Secondary Schools students.
   b). Government schools and Private schools.

4. To find out the difference in computer education attitude between:
   a). Government and Private secondary school students
   b). NBSE and CBSE

5. To find out the relationship between computer education attitude and academic achievement.

1.12 HYPOTHESES

Null Hypotheses have been framed as under. They are:

Ho1. There is no significant difference of attitude of students on the accessibility of computers at home towards computer education.

Ho2. There is no significant difference between male and female students in their attitude towards computer education.

Ho3. There is no significant difference on the different level of student’s academic achievement in their relationship towards computer education.
Ho4. There is no significant difference of academic achievement between male and female secondary students.

Ho5. There is no significant on the academic achievement between government and private school students.

Ho6. There is no significant difference between government and private school student’s attitude towards computer education.

Ho7. There is no significant difference between NBSE and CBSE Boards School students towards computer education.

Ho8. There is no significant difference in the attitude towards Computer Education by secondary students in relation to their academic achievement.

1.13 DELIMITATION OF THE STUDY

The study used quantitative method for the secondary school students for the academic session of 2013. It was however delimited only to students of Class IX in Dimapur town this is so due to the time constraint of the study to undertake for the Class X in the secondary level with regard to the declaration of matriculation results.