CHAPTER – 1

INTRODUCTION

1.00 GENERAL INTRODUCTION

Education has always been a complex exercise undergoing conversion from time to time due to increased social responsibility. The New Educational Policy of India (1986) also focus its attention on an Educational system which can produce citizens who are by large physically, mentally and morally healthy; who are conscious of their duties and right as well as are thus socially well adjusted, who are keen to learn on a lifelong basis and incessantly eager to improve their performance and who accordingly are well grounded individuals competently causal to the uplift of the quality of life all over the place.

In the present digital era, the development in various aspects of Computer Technology has reached beyond our imagination and expectations. The computers become an integral part of our life. The successes become the greater success is fourth is added, which is Computer”. The computer is “a Nano electronic machine or device for storing proceeding and analyzing data or information following a set of instructions given to it by humans”.

The influence of computer is the extension that the modern society is a society of science and technology. The spread of science promotes respect for the role of reason in human affairs by demonstrating the power of the intellect when used in accordance with the spirit of the computer. The impact of the computer on human life has considerably modified human environment more and more development programs envisaged can greatly benefit from the acquisition and analysis, communication, bio-technology and other technological developments. Therefore, in this situation a person has to function efficiently with the computer knowledge, skill and attitudes. Modern computer Education is facing some important challenges.

The dictionary meaning of the “COMPUTER” is “an electronic calculating machine”. In fact, a computer is a machine that can count, write and solve complex problem problems, quickly and accurately. It is can perform some operations simultaneously, avoiding confusion.

A computer is otherwise known as a “Stupid Genius” even though we have the computer with artificial intelligence. The modernized world is equipped with many advance scientific instruments and machines to perform our essential activities. The prevalent instrument, which occupies our day-to-day life, is computer it is apt to say no school,
instruction, office, industry can function without a computer. In this junction, it is needed to one and all to know about the operation and knowledge of the computer. The introduction of the computer into Education is a highly significant innovation, one that may bring about fundamental changes in teaching-learning process and its activities. The computer offers schools the opportunity radically to enhance the quality of Education and to overcome the present difficulties of the Educational system. From Elementary to Universities are using the computer to supplement instruction, to enrich the ability of teachers to connect to information and to deliver teaching experience.

The computer becomes an integral part of our life. According to Rob McCauley (2011), “the success in school is determined by three R’s, namely, READING, WRITING, and ARITHMETIC. The success becomes a greater success if the fourth R is added, which is COMPUTER”. The computer is “an electronic machine or device for storing giving out and analyzing data or in order, following a set of instructions given to it by humans”.

1.01 DEFINITION

According to Babbage, Charles “Computer is an electronic, automatic, data processing machine”. The dictionary meaning of the
“COMPUTER” is “an electronic calculating machine”. In fact, a computer is a machine that can count, write and solve complex problems, quickly and accurately. It is can perform, some operations simultaneously, avoiding confusion.


The computer offers schools the opportunity radically to enhance the quality of Education and to overcome the present difficulties of the Education systems. Computers are used in schools from elementary to universities to supplement instruction, to give-learners the ability to connect to information and to deliver learning experiences. Among the four components of computers (hardware, software, under ware and human ware) human ware (personal) are vital in their roles.

Like, wise the students must be well aware of the roles of computers in Education, and the teacher must create a favourable attitude towards computer Education.
1.02 CAPABILITIES OF COMPUTER

Computers are used in all walks of life for the following reasons:

1. **Data Storage:** It can store wonderful amount of information, i.e., text, numerical tables, graphs, etc.

2. **High Speed:** It can perform thousands of operations in a fraction of a second. Results of calculations are thus more or less instantaneous.

3. **Processing and Monitoring:** Computers can be programmed to process the responses and to monitor the progress of a learner during the process of interaction.

4. **Portability:** Computers may be elated easily. Lap-top the computers have come and widely used by many people.

5. **Consistency and Accuracy:** Computers can compute and display the same information with a high degree of accuracy and number of times and anywhere.

6. **Versatility:** Computers are capable of solving any problem provided it is reduced to a series of logical steps. Because of this, it appears that computers are high ingenious.

7. **Endurance:** If a man starts working, he becomes tried after few hours. But the computer works for hours together without fatigue.
1.03 APPLICATIONS OF COMPUTER

Computers have been employed in almost all spheres of human activity. They have taken over the repetitive work in the storage of data, processing and retrieval of information from different fields. They have been identified as follows:

1. In Industry, computers have taken over the tasks of designing and manufacture. This is referred to as “Computer Aided Design (CAD)” and “Computer Aided Manufacture (CAM)”. Numerically controlled machines and computer-managed systems have brought in a virtual revolution in automation.

2. In Banks and Post Offices, computers are employed to process cheques, count currency notes, handle bills and maintain records of all withdrawals, deposits, transfers, etc.

3. In Railways and Airways, computers are used to make reservations in trains and flights as also cancellations, alterations, etc. Up-to-date status of reservations is instantly displayed.

4. In Schools and Colleges, computers keep students records of attendance, performance in tests, fees, scholarship, etc. computers are being used for instruction.

5. In Warehouses and Stores, computers maintain a constant record of all supplies and consumption’s, indicate shortfalls and monitor procurement, etc.
6. **In Medicine and Healthcare**, computers maintain records of patients and medicine and also helps in diagnose. For example, a computerized blood test can result in all the desired information within minutes.

7. **In Architecture**, newer designs of buildings and structures are prepared and different views are examined before selecting a design.

**1.04 HISTORY OF COMPUTER**

The computers, that we use today is the result of man’s long search for a device to help in performing computations. The search dates back to the 17\textsuperscript{th} century. A series of scientific breakthroughs by many persons have contributed to produce this electronic machine, the computer. The word a computer is resulting from the term “Compute” which means to calculate. If we look back at the history of the computers it can be traced back to 3000B.C. the Stone Age man used small round stones for counting cattle. Later, the Chinese developed a device called Abacus. This is supposed to be the first mechanical computing device. In 1694, Gottfried Wilhelm Leibniz, a German invented the Leibniz calculator which was used for addition, subtraction and multiplication.

A French weaver’s son named Joseph Marie Jacquard made the next significant contribution in 1804. After observing his father making different weaving patterns on the loom, he thought of storing these
patterns for future use. So he developed a plate with multiple holes to control the weaving patterns, not knowing that one day his idea of storing the weaving patterns would be used to store data and would be called the punch card. A punched card is a thin rectangular card divided into 80 columns and 12 rows in which the various character could be represented by punching holes in different rows and columns. On one card it is possible to punch 80 characters one characters per column. Thus it is possible to store 80 characters of data.

The next significant invention came from Dr. Herman Hollerith; an American Hollerith built a Computer to analyze the Census data of the United States of America in 1890. This computer was electro-mechanical and was named the Census machine or Hollerith statistical Tabulator. Using this machine Hollerith announced the results of the cantus in $2 \frac{1}{2}$ Years as compared to $7 \frac{1}{2}$ Years when the processing was done manually. Herman Hollerith founded a company named “The Computing Tabulating Recording Company” which today is the IBM Corporation.

The computer has built – in LOGIC, the capacity to make a selection. Logic means some rational thinking, like, two is bigger than 1.

The computer is capable of interaction or repetition. Suppose, you have to calculate interest for 100 fixed deposit accounts, in a computer
the instructions are stored only once, and these instructions can be executed automatically, any number of times. The data and instructions can be stored and retrieved using the computer.

1.05 GENERATIONS OF COMPUTERS

To have these three features i.e. perform logical functions perform repetitive functions and store data and instructions (Memory) in a computer, certain components were made use of, which made a lot of difference in the capacity of the computer. So depending on the technology in use the computers are said to belong to different generations.

Ist Generation of Computer (1945 – 1955): The main component in use was the vacuum tubes, (like those in the old radios, which warmed up after a minute or so, and glowed red). The Vacuum tubes were also called as valves. The first computer used 17000 vacuum tubes or valves took ages to warm up and consumed massive amounts or electricity. Some of the computers of this generation are ENIAC, UNIVAC-1.

IInd Generation of Computers (1955-1965): The real breakthrough in computers started with the discovery of the transistor (one can find three legged transistors inside all transistor radio). The transistor is a tiny semi-conductor device; the size is about 1/50 the of a valve, which can
perform the same function as that of a large valve. Transistors replaced valves in the computers. The use of transistors has: 1. Reduced the size of the computer. 2. Reduced manufacturing and running costs and 3. Improved reliability and processing power of the computer. Computer, which was built using transistors, became the second generation computers. Some of the computers of this generation are: IBM 7000 series, IBM 1620, and IBM 1401. Second generation computers were significantly faster than the first generation computers. But things did not stop there.


As the next step, functions of some of transistors were put together on a single chip (water) of silicon. These chips are called Integrated Circuit (IC) chips. A small chip, the size of a fingernail could have the equivalent of 200 to 2000 transistors. The chip is small silicon water with very minute transistors, which can do logical comparison and calculations. Some chips have been developed for the purpose for the purpose of data storage.

These constitute the memory chips. The use of chip technology reduced the size of computers. Computers, which were built using ICs, became the Third Generation Computers. Some of the Computers of this generation are: IBM 360, IBM 370.
IV<sup>th</sup> Generation of Computers (1970 Onwards): From 1970 onwards we are in the era of Fourth Generation Computers, in which the electronic components was further miniaturized through Large Scale Integration (LSI) of circuits on the silicon chip.

Now the advancement of chip technology has come to be known as Very Large Scale Integration (VLSI), where millions of transistors are packed in a single chip. The VLSI chips are getting refined every day. The size of the chip is shrinking and the components, which are packed in a chip, are multiplying, as a result the size of the computer is reducing. What used to be a room-sized computer at one time is now available as Desktop computer or Laptop computer with much more computational power. Along with the reduction in size there is significant reduction in prices too.

V<sup>th</sup> Generation of computers - 1982 onwards: From 1982 onwards research is on to develop a Fifth Generation Computer that will have the thinking power just like that of the human brain. These computers, which are based on Artificial Intelligence (AI), are designed to be "Thinking" computer capable of storing, a large amount of data to be retrieved as and when required to solve a problem. The introduction of computers into Education is a highly significant innovation, one that may bring about fundamental changes in teaching - learning process and
its activities Educational Technology provides teachers with methods and tools, which may help to solve the innumerable problems that plague their teaching and student's learning. Begging one such tool, Computer can undoubtedly offer, within certain limitations, some possible solutions, (Rusbhy, 1979).

**1.06 IMPORTANT CHARACTERISTICS OF COMPUTERS**

High Speed, Use only binary number system, Linkages, Little Space, Processing and Monitoring, Sequential and random display, Portability, Individualization, Accuracy is consistency high, Versatility, Endurance, Diligence, High storage capacity and Automation Whole reviewing the literature about the attitude towards computer Education in investigator noted different classifications adopted by different experts. Husen and Postlethwaite (1985) classified three applications of computers in Education, which are as follows: I. Computer Assisted Instruction or Computer Assisted Learning. II. Computer Managed Learning and III. Computer Managed Testing.

Kemmis, et al (1977) presented four Educational paradigms which they found to be useful in relating to the general field in Education. The four paradigms are: 1. Instructional, 2. The revelatory, 3. The conjectural and 4. The Emancipator.
In the instructional form, the computers is a patient tutor, in the revelatory forms it is used as to mediate between the student and hidden model or encouragement of a real world situation, in the conjectural form it helps the student to formulate the amount of non essential work he must do reach learning objectives.

Bhatt and Prakash (1994) have divided the fields of computers in Education in to two main sections, which they called informatics as content of Education and informatics as an instrument of Education. Later they divided the sector of using computers in to three sub sectors.

1. Teaching Tool
2. A Learning Tool and
3. Administrative Tool.

Richard and Shumthe (1989) divided the use of computers in Education into the following categories.

1. Computation
2. Conceptualizing
3. Problem Solving
4. Simulation
5. Drill and Practice
6. Teacher utility and
7. Information management and tutorial.
Bhatt and Prakash (1994) indicated that the use of computers in Education in three technical terms.

1. Computer Assisted Learning
2. Computer Assisted Instruction and
3. Computer Managed Learning

**1.07 COMPUTER ASSISTED LEARNING (CAL)**

Kulik and Drowns (1990) indicated the terminology of computer Assisted Learning is influx. Terms frequently used this area or parts of it Computer Assisted Instruction, Computer based Education, computer managed instruction, computer based learning, computer argument learning, computer enriched instruction and many others.

Computer Assisted Instruction is totally an individualized instruction, but it can be used in small groups also. Computer provides maximum amount of flexibility of the students. It can also provide different types of examples. The Trainees can choose content, sequence and the difficulty level of the teaching that he requires.

The computer like a human teacher presents the lesson to the learner in a systematic way. In addition, Computer Assisted Learning ensures cent percent interaction by the student and therefore assures mastery level achievement.
Rushby (1979) described that Computer Assisted Learning (CAL) in term of a kind of information flow between the student and his learning environment mediated by the computer. He also adds that Computer Assisted Learning characterized by a flow of rapidly changing, very detailed, information with the computer a prominent role as a mediator. Pillay and Nachimuthu (1990) have the opinion that the computers become an interesting medium, which also interactive like a teacher and never fail to interact with the student.

1.08 COMPUTER MANAGED INSTRUCTION (CMI)

In the computers managed instruction the computer acts as the manager. It directs a teacher to reach from different source once the objective has been formulated. Computer Managed Instruction is a means of improving the effectiveness of the management of teaching and learning.

Bhatt and Prakash (1994) identified steps of computer managed instruction such as planning, organizing, controlling and evaluation functions that occur during the instructional process.

The computer-managed system is usually conceptualized and implemented an aid to teachers in their task of controlling and managing their content, pace, sequence and method of learning of the students in
their charge. Thus, the using of computer enhances the teacher’s power to understand and develop their own teaching according to their own purpose.

The Computer is an aid to the student in managing his own study. The computer would be provide the background information about data concerning the institutions requirements of graduation, the requirements of graduate and professional schools and training needs for various careers with these data the computer might be able to assist the teachers in developing a satisfactory program of teaching.

1.09 USES OF COMPUTERS IN EDUCATION

The 1977 conference of the (USA) “National of Uses of Computer Aids to Learning (NAUFAL)” produced the following useful list of possible computer operations in Education.

1. Learning about Computer
   b. Data Processing.
   c. Computer Science.
   d. Professional Development.
   e. In-service Training.
2. **Learning through Computer**
   a. Drill and Practice.
   b. Diagnostic Testing.
   c. Tutorial.

3. **Learning with Computer**
   a. Simulation and Gaming.
   b. Problem Solving.
   c. Creative Activities.

4. **Learning support Systems**
   a. Computer Managed Instruction.
   b. Information Management.
   c. Guidance.
   d. Materials Generation.

**1.10 COMPUTER LITERACY**

While interacting with computer, one may learn specific facts and procedures that are relevant to operating computers. That is called computer literacy. Computer literacy represents a form of near transfer being able to solve problems and answer questions that are similar those experienced during learning. The computer literacy involves the following: Recognizing computer terms, Remembering computer facts and Remembering computer operations.
1.11 COMPUTER COMPETENCY

The Computer Competency is a process whereby a student demonstrates his or her ability to perform college level basic computing work. This process includes the successful completion of a Computer Competency Exam or the completion of a specified computer course.

Computers in the classroom include any digital technology used to enhance, supplement, or replace a traditional educational curriculum. As computers have become more accessible, inexpensive, and powerful, the demand for this technology has increased, leading to more frequent use of computer resources within classes, and a decrease in the student-to-computer ratio within colleges.

College is committed to the importance of the computer competency. The college requires all degree-seeking Trainees, to demonstrate computer competency either by passing an exam or by successfully completing a designated computer course.

During the first thirty (30) hours of college level course work at State, students must complete the requirements in their major for proving computer competency. The student’s advisor will help determine which steps a student should follow to show proof of computer competency.
B.Ed., Trainees should consult with their academic advisor to determine if the chosen major has a computer course requirement that fulfills the computer competency requirement. If the chosen major does not have a specific computer competency course requirement, then the following points should guide the student when determining how best to meet the computer competency.

College campuses used computer mainframes in education since the initial days of this technology, and throughout the initial development of computers. The earliest large-scale study of educational computer usage conducted for the National Science Foundation by The American Institute for Research concluded that 13% of the nation's colleges used computers for instruction, although non-users still outnumbered users at a ratio of 2 to 1. The study also concluded that computers proved to be very popular with students, and that applications run on early models included sports statistic managers, administration tools, and physics simulators.

In 1975, Apple Inc. began donating Apple 1 model computers to colleges, and mainframes began to lose their former dominance over academic research. Computer usage continued to grow rapidly throughout this era. In 1977, it was estimated that over 90% of students at Dartmouth College had used computers at some point in their college
careers. Walter Koetke, the director of a Lexington, Massachusetts college system commented that, "It's still possible for a student to get through here without using the computer, but he would certainly have to try to do it".

Computer-aided instruction gained widespread acceptance in colleges by the early 1980s. It was during this period that drilling and practice programs were first developed for exclusive classroom use. Colleges became divided over which computer manufacturers they were willing to support, with grade colleges generally using Apple computers and colleges preferring DOS based machines. Hardware shortages in colleges became a major issue, leaving many teachers unable to provide enough computers for students to use. Despite this, by 1989 computer usage shifted from being a relative rarity in American colleges, to being present in nearly every college district.

Six Ways to Use Your Computer in College

Before we start writing about computers in the classroom, we have a confession to make . . . We have spies. That's right, spies. They are college students who tell us about weird things that they are seeing on campuses these days. Here are some of our spies' stories about some unusual ways that students are using their laptops on campus this year . . .
1 - **Skype a lecture.** You and your roommate both have a lecture at 10:00 a.m., but your roommate can’t seem to get out of bed. No problem! You head to the lecture and Skype it to him. Note that this ploy requires a swiveling webcam on your laptop, because if you turn your laptop around and point it at your prof, she’s going to know that something’s up.

2 - **Go shopping.** You sit in your lecture hall and peck away on your computer. Your professor thinks you are taking notes on all of her brilliant statements, but you’re really buying jeans. Note that this only works in lectures where no information is presented. You know which ones those are.

3 - **Record a lecture for later review.** Sit there, smile, and think about anything you want while your computer records the lecture onto your hard drive. Heck, you'll absorb more information later in the day when you're awake, right?

4 - **Try to crack up your classmates by sending them funny messages.** Even though your instructor thinks you are taking notes, you are really sending messages about him that say, “Where'd he buy that tie, Home Depot?” or, “If this bozo says ‘existentialism’ one more time, I'll scream.”
5 - **Google for answers and look like a star.** Okay, this is shady. But if your professor asks, “Anybody know when Alexander Pope lived?” search online and throw your hand up with the correct answer in four seconds.

A few warnings, however. First, if you overuse this technique, people are going to catch on. Second, be sure to sit in the last row in the lecture hall, because if your classmates see you doing it, they are likely to raise hell.

6 - **Take college courses online in your own home.** Okay, this is a bit different from the other ways to use computers that we noted above. It’s a legitimate way to use your computer to further your education. Nice to know that there’s one of those, right? But don’t feel like you are out of the fun if this is how you use your computer. When you finish up a lesson, you can still go online to shop for jeans, right? So you’re getting the best of all possible worlds.

1.12 **COMPUTER COMPETENCY REQUIRED FOR B.Ed., TRAINEES**

21st-century Education is the development whereby digital natives make use of the power of up-to-the-minute equipment to learn anything, anytime and anywhere. Classrooms are no longer automatically defined by unyielding walls, as hybrid learning models merge the virtual with the bodily into a truly engaged and collaborative Educational experience. Effective teaching in the 21st century must be student centered and
must infuse equipment into the learning practice for both rigidity and relevance and highlight higher order thinking skills.

**Computer Competency**

The computer competency is a process whereby a student demonstrates his or her ability to carry out college level basic computing work. This process includes the winning completion of a Computer Competency Exam or the completion of a specified computer course.

**Teacher and Technology**

The new millennium was ushered in by a theatrical technological revolution. Living in more and more diverse, globalised and a complex, media-saturated society 21st century Education is flexible, creative, demanding and complex. It addresses rapidly changing world filled with fantastic new problems as well as exciting new possibilities within the sound Education setting. The teacher can enable students to the technology to become better information seekers, analyzers, problem solvers and communicators. The government, experts and practitioners in the Education sector increasingly be familiar with that the Information and Communication Technology (ICT) can play an important role in supporting Educational development and reforms.
Impact of ICT on the Learning Environment

ICT is a mediator of learning as a component of the learning environment. Schools and Educational systems must provide the infrastructure and support for students and teachers, and the continuation of constructivist learning environments in which ICT is used. Research has consistently shown that a few schools and teachers put into operation the computer support to a degree where the possible benefits are likely to be realized. There are a number of significant problems which impede and prevent teachers from achieving the full benefit offered by the computer applications.

Computer Competency for Teacher Trainees

Today's classroom teachers must be arranged to provide technology-supported learning opportunities for their students. Being prepared to use technology and knowing how that technology can support student learning must become integral skills in every teacher's professional range. Teachers must be prepared to empower students with the advantages of technology. Schools and classrooms, both real and virtual, must have teachers who are equipped with technology resources and skills and who can effectively teach the necessary subject matter while incorporating technology, concepts and skills. Real-world connections, primary source material, and complicated data-gathering
and analysis tools are only a few of the resources that enable teachers to provide unbelievable opportunities for conceptual understanding. Traditional Educational practices no longer provide prospective teachers with all the necessary skills for teaching students, who must be able to survive economically in today’s workplace. Teachers must teach students to apply strategies for solving problems and to use appropriate tools for learning, collaborating, and communicating. The problem is not necessarily lack of funds, but lack of adequate teaching and lack of supportive of how computers can be used to enrich the learning experience.

1.13 IMPORTANCE OF COMPUTER COMPETENCY FOR TEACHERS TRAINEES

Teaching is a complex activity. Competent teachers apply broad, deep, and integrated sets of knowledge and skills as they plan for, implement, and revise instruction. Technology proficiency (including technical skills and instructional applications) is but one dimension of teacher competence. The acquisition of technology knowledge and skills must be connected with the development of a broader array of competencies. Early attempts to develop technology standards for teachers were isolated from the broader teacher competencies and were focused primarily on technology skills. Consequently, these competencies
were largely ignored by teacher-training institutions. Typically, colleges of Education simply required a single media course to satisfy accreditation requirements; often, colleges were reluctant to insert yet another course into an already overloaded curriculum. The International Society for Technology in Education (ISTE) has actively addressed the knowledge isolation problem and has recently released a set of revised teacher technology standards. Developed through a thorough process of expert and lay-person input, the NETS-T Project (National Educational Technology Standards for Teachers) explicitly describes what experienced teachers should know and should be able to do with technology in the context of broader teacher competencies.

1.14 DIMENSION OF COMPUTER COMPETENCY

Basic Computer Knowledge

The computer is a device that transforms data into meaningful information. Data can be anything like marks obtained by you in various subjects. It can also be name, age, sex, weight, height, etc. of all the students in a class. Computer can also be defined in terms of functions it can perform. A computer can i) accept data, ii) store data, iii) process data as desired, and iv) retrieve the stored data as and when required and v) print the result in desired format. The major characteristics of a computer are high speed, accuracy, diligence, versatility and storage.
**Word Processing**

The use of specialized document manipulation software running on a computer or terminal that allows a user to create, edit, store and print out text-based documents. Most modern companies that have a need for producing business letters or other types of text documents will have access to word processing software and a printer.

**Spread Sheet**

A spreadsheet is a sheet of paper that shows accounting or other data in rows and columns; a spreadsheet is also a computer application program that simulates a physical spreadsheet by capturing, displaying, and manipulating data arranged in rows and columns. The spreadsheet is one of the most popular uses of the personal computer.

In a spreadsheet, spaces that hold items of data are called cells. Each cell is labeled according to its placement (for example, A1, A2, A3...) and may have an absolute or relative reference to the cells around it. A spreadsheet is usually designed to hold numerical data and short text strings. Spreadsheets usually provide the ability to portray data relationships graphically. Spreadsheets generally do not offer the structure and label data items as fully as a database and usually do not offer the ability to query the database. In general, a spreadsheet is a much simpler program than a database program.
Daniel Bricklin and Bob Frankston created the first spreadsheet application, VisiCalc (for "visible calculator"). Lotus 1-2-3 came next, followed by Microsoft Excel. While Lotus 1-2-3 was the first to introduce cell names and macros, Microsoft Excel implemented a graphical user border and the ability to point and click by a mouse. There are many other spreadsheet applications on the market today; however, Lotus 1-2-3 and Microsoft Excel continue to be the most popular.

**Power Point Presentation**

Power Point is a presentation program developed by Microsoft. It is included in the standard Office suite along with Microsoft Word and Excel. The software allows users to create anything from basic slide shows to complex presentations. PowerPoint is often used to create business presentations, but can also be used for Educational or informal purposes. The presentations are comprised of slides, which may contain text, images, and other media, such as audio clips and movies. Sound effects and animated transitions can also be included to add extra appeal to the presentation. However, overusing sound effects and transitions will probably do more to annoy your audience than draw their attention.

**Database / Storage Unit**

A folder is a collected works of information that is organized so that it can easily be accessed, managed, and updated. In one view,
databases can be confidential according to type of content: bibliographic, full-text, numeric, and images. Storage is frequently used to mean the devices and data connected to the computer through input/output operations - that is, hard disk and tape systems and other forms of storage that don't include the computer memory and other in a computer storage.

**Networking**

Networking is a process that fosters the swap of in sequence and ideas among persons or groups that share common interests. Networking may fall into one of two categories: social or business. Less normally in finance, the term "networking" may also refer to the setting up and operation of a physical computer network. A computer network is a set of the computers connected together for the purpose of sharing resources. The most common resource shared today is connection to the Internet. Other shared resources can include a printer or a file server. The Internet itself can be considered as a computer network.

**Computer Network Defined**

A computer network is a set of connected the computers. The computers on a network are called nodes. The connection between the computers can be done via cabling, most commonly the Ethernet cable, or wirelessly through radio waves. The connected computers can share
resources, like access to the Internet, printers, file servers, and others. A network is a multipurpose connection, which allows a single computer to do more.

**Types of Network Connections**

Computer networks can be broken down historically into topologies, which is a technique of connecting computers. The most common topology today is a collapsed ring. This is due to the success of a network protocol called the Ethernet. This protocol, or a network language, supports the Internet, Local Area Networks, and Wide Area Networks.

**ICT / Internet**

The Information and Communication Technologies (ICT) refers to skill that provides access to information through telecommunications. It is similar to Information Technology (IT), but focus primarily on communication technologies. This includes the Internet, wireless networks, cell phones, and other communication mediums. In the past few decades, information and communication technologies have provided society with a vast array of new communication capabilities. For example, people can communicate in real-time with others in different countries using technology such as immediate messaging, voice over IP, and video-conferencing. Social networking websites like Face book allow
users from all over the world to remain in contact and speak on a normal basis. Contemporary sequence and communication technologies have created a "worldwide area," in which people can communicate with others across the world as if they were living next door. For this reason, ICT is often studied in the context of how modern communication equipment affect society.

**Hardware**

The computer hardware is the collection of physical device of a computer system. This includes the computer case, monitor, keyboard, and mouse. It also includes all the device inside the computer case, such as the hard disk drive, motherboard, video card, and many others. The Computer hardware is what you can physically handle.

**Software**

As you are aware, the computer cannot do no matter which on its own. It is the user who instructs the computer; what to do, how to do and when to do. In order to carry out any task, you have to give a set of Education s in a particular progression to the computer. These sets of commands are called Programs. Software refers to a set of programs that makes the hardware perform a particular set of tasks in particular order.
1.15 SELF-ESTEEM:

All humans have a need to be respected and to have self-esteem and self-respect. Esteem presents the normal human desire to be accepted and valued by others. People need to engage themselves to gain recognition and have an activity or activities that give the person a sense of contribution, to feel self-valued, be it in a profession or hobby. Imbalances at this level can result in low self-esteem or an inferiority complex. People with low self-esteem need respect from others. They may seek fame or glory, which again depends on others. However, that many people with low self-esteem will not be able to improve their view of themselves simply by receiving fame, respect, and glory externally, but must first accept themselves internally. Psychological imbalances such as depression can also prevent one from obtaining self-esteem on both levels.

Definition:

Self-esteem is a sense of personal worth and competence that persons associate with their self-concepts.

Meaning of Self-esteem:

When an individual has established a co of self, then he is an able to determine whether not he is satisfied with what he feels about himself,
thus Self-esteem can be judged. It will be more appropriate to indicate here that all individuals have Self-esteem because they have worth, values and high regarded, but it may range from high to low-in various individuals and in various aspect of the substantive self.

**Becker (1971)** argues that the dominant motive of man is the need for self-esteem. Hayakawa (1963) also suggested that the main purpose of all human activity is to enhance self-esteem. It refers to be extent to which we admire or value the self. Different people have different levels of awareness of the self, different feelings about themselves as persons.

Self-esteem is the individual’s satisfaction with his self-concept. Positive belief he is termed as positive self-esteem. It is the complex picture of perceived self-value. It is the disposition to feel worthy of happiness, respect, friendship, achievement and success. Defined feeling of self-worth provides the foundation for motivation, mental development and healthy interpersonal relationships. It is usually defined as the personal judgments and healthy interpersonal relationships. It is usually defined as the personal judgments of worth lying along a dimension with positive and negative ends. It is usually defined in terms of self-attitudes, as which have an emotional and behavioral component. **Cohen (1959)** referred to the self-esteem as the degree of correspondence between the
ideal self and the real self. It is regarded that the self-esteem as the individual’s effective evaluation of ideal and real self.

**Brownfein (1952)** defines self-esteem as the degree which a person accepts himself. It is the person’s evaluation of aspects of himself that is the feeling of worth. According to **Cooley (1902)**, self-esteem is the child’s affective evaluation of the sum of his or her characteristics, both mental and physical.

**Coopersmith (1967)** defines self-esteem as the evaluation that the individual makes and customarily maintains with regard to him; it expresses an attitude of approval or disapproval and indicates the extent to which an individual believes him to be capable, significant, successful, and worthy. **Resenberg (1965)** defines self-esteem as an evaluation that the individual makes and customarily maintains. Esteem may be regarded as being equivalent to self-regard or self-respect.

According to **Wells and Marwell (1976)** self-esteem refers to the way a person perceives and defines himself is postulated to have an effect upon his behavior, how he will relate to other people, what tasks he will attempt, what states of tension he will experience, and how he subsequently will perceive himself. Academic’s dictionary of psychology defines self-esteem as our feeling of our competence and our ability to
succeed at our goals in life. Encyclopedia of psychology defines self-esteem, as the way one feels about oneself, including the degree to which one possesses self-respect and self-acceptance. It is defined as the sense of personal worth and competence that persons associate with their self-concept.

Self-esteem refers to the extent to which we admire or value the self. Cooperation Smith and Feldman (1974) have explained the constructs of self-concept and self-esteem. Self-concept consists of the beliefs, hypotheses, and assumptions that the individual has about himself on the other hand; self-esteem represents his judgment of the concept that he has formed through his interpretation of the feedback from his physical and social experiences. Self-esteem is the person’s evaluation of whether his self-concept attains his standards and values or not. It is a generalized positive/negative attitude toward him.

Esteem is externally originated before it is internally based. Self-esteem is multi-faceted and domain specific. Before attains a level of prideful involvement in one’s activities, one seeks the respect and assurance of others that one is a worthwhile person. Another type of esteem needs is the need to feel superior to others. Everyone has a need for superiority, but the problem is that it must be brought under control.
Cooper Smith (1967) has noted that failure to gratify reputation from others can produce personality disturbance in the individual. Where we see ourselves standing about giving people is similar to us.

Self-esteem is a hierarchical construct, with the general self-concept at the apex, a number of main domains, such as the self-concept of the academic, the social, the emotional, and the physical aspect of the self at the middle level, and a more number of specific domains such as mathematics and science in the academic domain or physical ability and physical appearance in the physical domain, with in each of these main domains.

Cattell (1950) also introduces the process of self-observation. The self who a person must rationally admit to being is the actual (real) self, and the self who a person would aspire to is the ideal self. Cattell, along with James, all port and win conceive of the self as both object and process. James gives the self as a dynamic quality of self-pre and seeking while All port gives it the “appropriate” function of striving activity whereas Cattell is even more Exmore explicit regarding selective perception and maintenance of self-esteem, and adds the dimensions of aspiration self.
Adler's (1927) self is a highly personalized, subjective system through which a person interprets and gives meaning to his experiences. He viewed each person as a conscious being individual, and who is capable of planning and guiding his actions with the full awareness of their meaning for his own self-realization.

Adler saw every person as having the same goal, namely that of superiority, but he also saw that there were countless different “life styles” for an achieving that goal. Every individual arranges his life in such a way as to achieve the end of being more or less superior to those seeking similar goals.

Self-esteem is the totality of the individual thoughts or feelings having reference to himself as an object esteem needs are divided broadly into two categories namely, 1. Self-respect, self-regard and self-evaluation and 2. Those related to respect from others, reputation, status, social success and fame. The need of self-evaluation occurs in those persons who are comfortably situated. They are quite secure in the satisfaction of lower needs. It fulfills require for self-respect, a need to feel good for him. The self of becomes known through self-awareness, and social interaction. Self-awareness develops as the child recognizes the distinction between self and not-self, between his body and the
remainder of his visible environment. Self-awareness develops as we compare and contrast our physical bodies, skills, attitudes and achievements to those of other people, some person are concerned primarily with physical qualities, this becomes their measuring stick for self-esteem. Some other focus above all on spiritual qualities and this is their barometer of self-esteem. Still others are concerned essentially, with matters of mind, and this is their measure of self-esteem.

**Personality and Self-Esteem**

Personalities differ greatly among individuals different people have different levels of awareness of the self, unlike ideas about their awareness and different feelings about themselves as personnel. The relationship between self-esteem and character is made very clear by modern individuality theorists. They argue that the notion of the self is chief and indeed central to personal functioning. In this connection, Backer (1971) argues that the dominant motive man is the need for self-esteem. Hayakawa (1963) also suggests that the main purpose of all human activity is to enhance self-esteem.

Combs, **Richards, and Richards (1976)** have developed the idea that each person behaves in a manner consistent with his perceptual field.
Toward Raising Children with high Self-Esteem

1. Parent Variables Related to self-esteem and Achievement.

   It has been found that mothers of children with high self- Esteem tended to be high in their have self-esteem. At the same time, mothers of children with self-esteem were themselves low in self-esteem. The impact of a parent’s personality on a growing child’s ideas and attitudes about himself is considerable. High self-esteem is deeply rooted in the experience of being esteemed by others. Coppersmith’s (1967) study shows that self-esteem is a pervasive characteristic. Children and adolescents with higher levels of self-esteem are to have parents who give them not only lots of attention and affection but also provide them with clear expectations, firm rules, and punishments. The attitudes of the close relative toward school and achievement, and parental concern for the interest in the child’s performance have the influence on a student’s self-esteem and they are also motivated to achieve. This Atmosphere enables the youth to work hard and aspires to their best for maintaining a healthy level of personal self-esteem.

2. The Role of School and Teacher Variables Related to Self-esteem and achievement

   The way we fell and think about ourselves is closely related to our ability to learn and to achieve academically. How people perform in
school depends not only on how capable they feel they are. Self-esteem has been related to such factors as school achievement, conformity, behavior, and attitude. This construct has been used to explain differences in behavior and academic achievement between ethnic groups, social class, groups and the sexes. A teacher is a significant factor in the interpersonal field of forces which influence a student’s developing self. Teachers at all levels can have an enormous influence on the student’s self-attitudes, which are related to his feelings about being able to think, answer questions and solve problems.

1.16 NEED OF SELF-ESTEEM

1. Self-esteem has been shown to relate to overall psychological well-being, and school success. It is vital to note that most self-esteem instruments are designed to assess global self-esteem.

2. Self-esteem may really be the master motive in personal and interpersonal relations.

3. Low self-esteem people are more likely to feel painful, shy, visible and unable to express themselves with assurance. This outcome in human being pain and loss of human possible.

4. High self-esteem individual as likely to seek personal growth, increase and enhancement by approaching themselves to the restrictions to work out their capabilities
1.17 DIMENSION OF THE SELF-ESTEEM

Self-esteem is the sense of personal worth and competence that persons associate with their self-concepts. It is an emotional portion of the character. It is the way one feels about oneself, including the degree to which one possesses self-acceptance and self-respect. It is our feeling of our competence and our ability to succeed at our goals in life. All people have a desire for a stable sense of self-respect and they need the esteem from themselves others as well. The extensive study of these ideas and investigator’s consultation with the experts arrive at a conclusion that the self-esteem has been almost framed in the individual’s self-regard and appreciation from outside. The items of the tool are contained in the following aspects of esteem, and they are called its dimensions.

1. **Self-worthiness:** The merit bright feeling of himself/herself is called self-worthiness.

2. **Self-love:** It is the individual’s value orientation characterized by the personal interests and needs.

3. **Reputation from internal (internal approval):** It is a sentiment of satisfaction of securing recognition from within him/her.

4. **Reputation from external (affiliation):** It is a mood of satisfaction of securing recognition from others.
5. **Pride:** It is a reaction of satisfaction arising from what has been done. It is an excessively physically powerful self-sentiment.

6. **Status:** An individual’s legal, social or professional position in about others indicates status.

These psychological objects, like dimensions, cover almost the esteem of the creature.

### 1.18 SOCIAL INTELLIGENCE

#### 1. Intelligence

Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively, with his environment intelligence is probably the most clearly defined and most accurately measured of all the enduring attributes of the human being. Intelligence is the ability to learn a matter of the extent to which he is educable the more readily and extensively he is can learn. It is an inherited capacity of an individual which is manifested through his ability to adopt and to reconstruct the factors of his environment by his group. Most psychologists accept the idea that learning capacity is an essential aspect of intelligence. There are instances of pupils who do excellent work in regular school subjects, but who have great difficulty in one or more of the special fields like art and mechanics. Intelligence is general mental adaptability to new problems and situations of life or in
other words; it is the capacity to recognize one's behavior patterns so as to act more successfully and more appropriately in novel situations. Thus, the more intelligent person is one can more without problems and more extensively vary his behavior as changing conditions and demand. He has numerous possible responses and is capable of greater creative reorganization of behavior.

It is acknowledged by all teachers that one of the single variables, which affect schooling, is the quality of behavior called intelligence. The term intelligence is vague and ambiguous in its denotation. Psychologists have been interpreting the term in different ways and are in disagreement, on the meaning of the term intelligence. The preconception is that people think that intelligence is a noun, which refers to things or concrete objects which can be directly perceived but in point of fact it is, an abstraction from the behavior of the individual. It is therefore; better to use the adjective “intelligent” instead of intelligence.

**Definition**

Basically, Intelligence is conceived as a detailed word. As Dockrell (1970) put it; social intelligence might be taken to mean ability. Earlier definitions have teamed it as the talent to judge all to comprehend well, to reason well.
1. **Binet (1916)** distinct in as the capacity to form concepts and grasp their significance.

2. **Vernon (1950)** clear it as the all-round thinking capacity or mental efficiency.

3. **Piaget (1947)** definite that the adaptation to the physical and social environment.

4. **Helm (1966)** defined intelligence as grasping the essentials in a situation and responding appropriately to them.

Many argue that intelligence is not the same as other psychological terms like 'learning, thinking, problem solving, attainment, or achievement', some feel that these terms are not qualitatively different and to great extent overlap Psychometric approach with the more empirical approach by looking at the relationship between intelligence as measured on the tests and performance on complex cognitive tasks. The ability to judge, comprehend and reason well, together with good sense, the faculty to adapt and use initiative. The suggestion here is that intelligence comprised several components and that there are several fundamental abilities inherent in it. Presumably to be intelligent, must be able to make sense of all the information that reaches our sensory system, but it is evident that a disability in one sensory modality does not impair intelligence.
Types of Intelligence

As the numerous definitions, there are many types of intelligence. The general division consists of these types.

1. **Social Intelligence**

   The human capacity to understand what is phenomenon in the world and responding to that understands in a personally and socially effective method. The successful intelligent, and in many other occupations one's success will depend as much on social sense as on official training. The socially intelligent person has the flair of receiving the length of well with people. He makes friends easily and is sensitive and supportive in the human being connection.

2. **Concrete Intelligence (or) Mechanical Intelligence**

   This is the ability to appreciate and deal with things as in skilled trader and scientific appliances. Mechanical, intelligence enables its processor to deal readily with machines mechanical and the highly trained industrial workers must all be mechanically intelligent. It is especially useful to know whether an applicant has mechanical intelligence when we are selecting people for occupations which require not only abstract intelligence but also the efficient use of manual skill and coordination.
3. **Abstract Intelligence**

It is the ability to understand and deal with verbal and mathematical symbols. Abstract intelligence is exhibited in our handling of symbols, words, numbers, formulas, diagrams. This ability is conspicuously absent in animals. The conceptual intelligence person is can discover relations among symbols and to solve problems with their aid. Successful lawyers, physicians, literary men-professional people, generally, as well as business statesmen and the like ordinarily, possess abstract intelligence in the high degree.

4. **Emotional Intelligence**

Emotional intelligence is a type social intelligence, which refers to the ability to set a goal in life, work towards achieving it, negotiates it and feels empathetic towards others. A key set characteristic makes up emotional intelligence, such as self-awareness, self-regulation, motivation, empathy and social skills. Emotional intelligence is a type of social intelligence, which involves the capacity for recognizing our own feelings and those of others for motivating ourselves and for managing emotions well in us and in our relationships various characteristics make up emotional intelligence such as self-motivation, the talent to control impulses, regulate moods and keep of distress away from swamping the gift to think.
According to Goleman (1996) an individual’s achievement at work, is 80% dependent on affecting brainpower and only 20% dependent on IQ. More recently, Salovey and Mayer (1989-1990) defined that the creation of touching cleverness as the ability to monitor one’s own and others’ move toward and emotions, to split surrounded by them, and to use this information to guide one’s own thinking and actions.

Emotional intelligence in Hatzes S (1996) study was conceptualized to consist of facility to manage emotions, determination, interpersonal, skills, sympathy, encouraging reframing and clarifying style. If people cannot be familiar with their possession of emotions, it leaves them at other people’s mercy and creates feelings of distress. Persons having the quality of self awareness know about their margins and strengths, which allows them to exercise self-control. Self-aware people have a high amount of self-assurance and also knowledge of their abilities, social skill, or the ability to switch the emotions of their abilities, social skill or the ability to handle the emotional intelligence, emotional intelligence yields likely for learning practical skills.

5. **Interpersonal Intelligence**

It helps people to be familiar with and make distinction about others feelings and intentions. Teachers, parents, politicians,
psychologists and sale people rely on interpersonal intelligence. Students exhibit this intelligence when they thrive on small-group works, when they notice and react to the moods of their, friends and classmates, and when they tactfully convince the teacher of their need for extra time to complete the homework assignment.

6. Intrapersonal Intelligence

This helps individuals to distinguish among their own feelings, to build accurate a mental models to make decisions about their lives. Although it is difficult to assess who has this capacity and to what degree, evidence can be sought in student’s use of their other intelligences-how well they seem to be capitalizing on their strengths, how cognizant they are of their weaknesses and choices they make.

Theories of Intelligence

Philosophers and psychologists have developed various theories as regards the nature of intelligence. Philosophers developed the concept of single factor or monarchic theory of intelligence which believes that intelligence consists of a single factor which equally works in all situations of life.
Thorndike’s (1927) multifactor theory of intelligence is at one extreme of the interpretations regarding the nature of mental organization.

According to this intelligence is said to be constituted of a multitude of separate factors, or fundamentals each one being a minute element of ability. Any mental act, according to this theory, involves some of minute Elements operating together. Any other mental act involves a number of the fundamentals in combination. Thorndike’s theory has been said to be an “atomistic” theory of mental ability.

Spearman's (1927) two-factor theory, stands at the other extreme of interpretations. According to him, all academic activity is dependent first and foremost upon and is in expression activity. Spearmen characterized this general factor as mental energy. He has concluded that the principal individual characteristic of tests highly “loaded” with general factor is that they require insight into relationship-what he called the Education of relation and correlates.

According to the group factor theory, intelligent activity is not an expression of innumerable highly specific factors as claimed. This theory which was propagated by Turnstone (1938) concluded that certain mental operation has in common a primary factor that gives them
psychological and functional unity and that differentiates them from other mental operations. These operations then constitute a group.

The two-factor theory has been criticized by statistical psychologists, notably Thomson and Thurstone. Thomson (1951) offered a sampling theory to explain the same table of inter correlations. Briefly, he had the opinion that the coefficients of correlation were the results of common sampling and combinations of independent factors. The number of common independent factors utilized to two tests will determine the coefficient of inter correlation between these two.

**Concept of Social Intelligence**

“Man is social animal.” This is an early saying of our associates; even this statement reveals that man is mainly dependent on his ‘society’. The level of intelligence differs among individuals. There are many factors affecting intelligence level as external and internal factors. Among the external factors analyzing the impact and influence of the society on an individual is a beneficial process to calculate the intelligence level.

A lot of psychologists and educators have given the elaborate definition of human intelligence while having social intelligence as their essential tool. Social intelligence means an ability of an individual to
understand others and to react in such a way that preferred and should attain; it would not include the feeling and emotions that aroused by the others. Appreciable adjustment with the society is the index of social intelligence.

In a Harper’s glossy magazine piece of writing in the 1930’s L. Thorndike defined social intelligence as the ability to be aware of others and act wisely in human relation. It is human capacity to have a handle on what is occurrence in the world and responding to that understanding in a personally and efficient manner. By social intelligence mean the qualities of seeing through the current social myths and diversions understanding the requirement of lifelong self-Education, recognizing the requirement of social action including discerning of what the social situation required and creating a program to realize social improvement and developing unadulterated feelings of compassion and regard for one’s fellow human beings.

Mere financial or academic or interpersonal success will never make a man successful understanding is possible to make their lives while and their society better during their natural life and after a man who is expert in studies and school activities he may be called an academically bright man but not an intelligent because there is a lack of
social intelligence in him, so man must learn the art of understanding his society.

By social intelligence, mean the qualities of:

a. Seeing through the current social myths and diversions.
b. Understanding the necessity of lifelong self-Education

**Social Intelligence**

Social intelligence means an ability of an individual to react to social situations in daily life. Social intelligence would not include the feelings or emotions aroused in us by other people, but merely our ability to understand others and to react in such a way towards them that the end desired should be attained. High social intelligence is possessed by those who are able to handle people well. Adequate adjustment in social situation is the index of social intelligence.

**Social intelligence involves six abilities:** (1) Imaginative ability, (2) Ability (3) Abstract ability, (4) Creative, imaginative ability, (5) Inductive ability (6) Involves each of the following abilities.

The ability to stand for choice subjective points view, not merely of a perceptual character, but also of an ideological character. The capacity to motive theoretically regarding the likely responses of others to given course of events.
1.19 DIMENSION OF SOCIAL INTELLIGENCE

The initial selections of the dimensions that measure social intelligence were determined on the basis of the judgment of 25 experts in the field of behavioral sciences. In order to construct the scale, the dimensions of social intelligence were selected in a scientific manner. Accordingly, sixteen relevant and meaningful dimensions of social intelligence were selected and defined. These were then given to a group of 25 experts, and 13 of these dimensions were unanimously accepted. These were further given to 10 experts to be rated on a 5 point rating scale ranging from very relevant to irrelevant. The experts were also asked to rank the dimensions from most relevant to least relevant. Following this a final list of 8 dimensions was selected and retained for final inclusion in the scale. Their operationally defined structure was as under:-

A. **Patience** – Clam endurance under stressful situations.

B. **Co-operativeness** - Ability to interact with others in a pleasant way to be able to view matters from all angles.

C. **Confidence Level** – Firm trust in oneself and ones chances.

D. **Sensitivity** – To be acutely aware of and responsive to human behavior.
E. Recognition of Social Environment – Ability to perceive the nature and atmosphere of the existing situation.

F. Tactfulness – Delicate perception of the right thing to say or do.

G. Sense of Humour – Capacity to reel and cause amusement; to be able to see the lighter side of life.

H. Memory – Ability to remember all relevant issues; names and faces of people.

1.20 NEED AND IMPORTANCE OF THE STUDY

The computer competency is necessary for the future for teaching community to empower the Educational standards, which is deciding the quality of life of the people. The quality of life could be achieved through proper self-esteem among the teaching fertility and adequate social intelligence; both this things pay the wave for the excellence in the performance of the teacher towards spacing the challenges of the future Education. Hence, the investigator as decided to study the computer competency among B.Ed., Trainees in relation to the self-esteem and social intelligence. India achieved extremely in almost all field. The especially the achievement in agriculture, science and technology, medicine and Education are outstanding. In spite of the various facilities provided to B.Ed. Trainees, their Education levels are not up to the opportunity. This is due to certain constrains on the Computer
Competency among B.Ed., Trainees in Relation to Self-Esteem and Social Intelligence of B.Ed. students.

The researches undertaken so far have largely concentrated in finding out the Educational status of the B.Ed. Trainees, the quality of the institution, the hostel life of the students and the prospect of success in the examinations etc. certain other studies in the same field have attempted to find out the academic process of the students who got admitted to various Educational programmes, who got admitted in the same institutions on the basis of good point protected in qualifying examinations. But the studies related to the effects of the psychological variable upon the competency of B.Ed. Trainees are very limited. Hence, the investigator attempted the present study to find the effect of the computer competency among B.Ed., Trainees in relation to self-esteem and social intelligence.

1.21 STATEMENT OF THE PROBLEM

The above discussion has made the present investigator to choose the problem at hand and it is stated as follows: “A STUDY OF COMPUTER COMPETENCY AMONG B.Ed., TRAINEES IN RELATION TO SELF-ESTEEM AND SOCIAL INTELLIGENCE”.

1.22 OBJECTIVES OF THE STUDY

The following are the objectives of the present study

1. To find out the Computer Competency of B.Ed. Trainees in Salem and Namakkal Districts.

2. To find out the Self-Esteem of B.Ed. Trainees in Salem and Namakkal Districts.

3. To find out the Social Intelligence of B.Ed. Trainees in Salem and Namakkal Districts.

4. To find out whether there is any significant difference in Computer Competency of B.Ed. Trainees with respect to the following sub-sample
   a. Gender (Male / Female)
   b. Subject specialization (Language/ Arts/ Science)
   c. Qualification (Graduate / Post graduate)
   d. Parental Qualification (Un-educated/School Education/ College Education)
   e. Parental annual Income (below Rs.50,000/ Rs.50,000 - Rs.1,00,000/ above Rs.1,00,000)
   f. Locality of students (Rural / Urban)
   g. Computer in home (Yes / No)
   h. Having E-mail ID (Yes / No)
5. To find out whether there is any significant difference in Self-Esteem of B.Ed. Trainees with respect to the following sub-sample
   a. Gender (Male / Female)
   b. Subject specialization (Language/ Arts/ Science)
   c. Qualification (Graduate / Post graduate)
   d. Parental Qualification (Un-educated/School Education/College Education)
   e. Parental annual Income (below Rs.50,000/ Rs.50,000 - Rs.1,00,000/ above Rs.1,00,000)
   f. Locality of students (Rural / Urban)
   g. Computer in home (Yes / No)
   h. Having E-mail ID (Yes / No)

6. To find out whether there is any significant difference in the social intelligence of the B.Ed. Trainees with respect to the following sub-sample
   a. Gender (Male / Female)
   b. Subject specialization (Language/ Arts/ Science)
   c. Qualification (Graduate / Post graduate)
   d. Parental Qualification (Un-educated/School Education/College Education)
   e. Parental annual Income (below Rs.50,000/ Rs.50,000 -
Rs.1,00,000 / above Rs.1,00,000)

f. Locality of students (Rural / Urban)

g. Computer in home (Yes / No)

h. Having E-mail ID (Yes / No)

7. To find out whether there is any significant relationship between computer competency and self-esteem and social intelligence of B.Ed. Trainees and the dependent variables selected for the study.

8. To find out whether there is any significant contribution of independent variables self-esteem and social intelligence on the dependent variable computer competency of B.Ed. Trainees.

**1.23 METHOD ADOPTED IN THE PRESENT STUDY**

It has been decided to use Normative Survey Method for the study. The present study intends to find out the computer competency of B.Ed. Trainees in relation to their self-esteem and social intelligence. The study also throws some light on the relationship between psychological variables and its effect upon computer competency of the students. In this research the population consists of all the B.Ed., Trainees studying in colleges of Education located in Tamilnadu State.
1.24 SAMPLE OF THE STUDY

The small proportion of the population selected for observation and analysis is known as sample. The method of sampling is based on the nature of the problem, size of the universe, availability of finance and persons. The sample for the present study consists of B.Ed. Trainees from Salem and Namakkal Districts which could be selected by Random Sampling method. It has been decided to select a sample of around 1000 B.Ed., Trainees.

1.25 DEFINITIONS OF IMPORTANT TERMS USED IN THE STUDY

Computer Competency

The Computer Competency is defined as the knowledge and ability to use computers and related technology efficiently, with a range of skills covering levels from elementary use to programming and advanced problem solving. Computer literacy can also refer to the comfort level someone has with using computer Programs and other applications that are associated with Computers. Another valuable component of computer competency knows how computers work and operate. Having basic computer skills is a significant asset in the well developed Countries

Self-Esteem

Cooper Smith (1967) defines self-esteem “as the evaluation which the individual makes and customarily maintains with regard to himself;
it expresses attitudes of approval or disapproval and indicates the extent to which an individual believes himself to be capable, significant, successful and worthy”.

**Social Intelligence**

Social intelligence can be described an individual’s proficiency at social skills and behaviors. Colloquial terms for social intelligence include 'street smarts' and 'common sense. This type of intelligence is different that the type measured by IQ tests. Social intelligence is mostly influenced by environmental factors and is developed from past experiences with other people in the environment.

### 1.26 DELIMITATIONS OF THE STUDY

- To study is confined to only the college of Education Trainees in Salem and Namakkal Districts.
- The sample is confined to 1000 B.Ed., Trainees.
- Among the various Districts in Tamil Nadu only Salem and Namakkal Districts is taken for the study.
1.27 A BRIEF REVIEW OF THE SUCCEEDING CHAPTERS

The entire study has been presented in five chapters.

**Chapter I** includes introduction, definitions of computer competency, Self-esteem and social intelligence. The specific objectives of the study as well as need and significance of the Education, need and importance of the study, statement of the problem, Method of the study and Delimitations of the study have also been indicated in this chapter.

**Chapter II** reviews the relevant research literature connected with the studies in computer competency, self-esteem and socio economic status. **Chapter III** outlines, briefly, the main features of the study area. Also, the nature and sources from which relevant data have been collected and the description sample, tools, variables, methodology and statistical tools employed in the study.

**Chapter IV** deals with the analysis of the data through a variety of tables into which relevant details have been compressed and the results that interpreted under appropriate heads. **Chapter V** includes the main findings, summary along with the suggestions, recommendations Educational implications and conclusion that have emerged from the findings of the study. Bibliography and Appendices are following the chapter V.
1.28 SUMMARY

Education is a continuous process which attempts to cause changes in the outlook or vision of the individuals who pursue a definite academic course. Education involves both the B.Ed., trainees and the learners and the process of education becomes perfect if only a mutual understanding and exchange of ideas exists with the continuous support of interaction between the B.Ed., trainees and the learner. Any system of education would be perfect only when the B.Ed., fulfill all the requirements of the learners and so the B.Ed., educational systems need updating of newer approaches and methods. In this chapter, the investigator starts with the definitions of education and moves towards teacher education and the related factors responsible for assessing the B.Ed., Computer competency, Self esteem and Social intelligence. Although many factors are involved in making the B.Ed., trainees successful in their profession, computer competency is considered to be foremost factors. In the second chapter, the researcher throws light on the literature related to the present study.