Chapter 1

Introduction
CHAPTER-1

INTRODUCTION

1.1 INTRODUCTION

Man is a highly enterprising being. He is always on the look out for inventing new innovations in all walks of life. Human life has improved tremendously as a result of the growth in science and technology. Education is a social institution that has also been influenced by technological developments. The impact of technology on education has been so profound that a new branch in the field of education called ‘Educational Technology’ has been developed.

**Dewey** says “Education is the development of all those capacities in the individual which will enable him to control his environment and fulfill his responsibilities”. ¹

**Gandhiji** opined that education is the all-around drawing out of the best in the child and man-body, mind and spirit. The all-around development includes the child’s (i) individual growth and (ii) social development. ²

**Aristotle** declared that, “Educated men are as much superior to uneducated as the living are to the dead”.

Education plays a very significant role in moulding the ideas habits, attitudes, interests and values of the children with a view to producing well-balanced personalities, aesthetically rich, culturally sound, emotionally stable, mentally alert, morally upright, physically strong, socially efficient, spiritually enlightened, vocationally self-sufficient and internationally liberal.

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Education is not a new process; it is as old as mankind, but it is receiving new interpretation. Education has been recognized by all thinkers as a modified process of aiding the individual to come into full possession of all the desirable features of his heritage.

Figure 1.1: Aims of Education

1.2 EDUCATIONAL TECHNOLOGY

Education technology is made up of two words.

1.2.1 Education

It has been derived from Latin words educare, educere, educo, etc. meaning ‘to train’, ‘to instruct’, ‘to put’, ‘to draw out’, or ‘lead forth’. Thus education is an act or process of acquiring and imparting knowledge, skills and attitudes. Education is not only external arrangement by a trainer; it is a
process of changing human behaviour in the desirable direction or helping an individual to bring out his/her potential.

1.2.2. Technology

It refers to the techniques as well as technical contrivances. It is a science of techniques and methods of doing or getting things done, related to any art, science, or particular profession. Technology, thus results in new designs and devices as also new ideas and processes.

Education technology is just not the sum of the two words. Earlier developments referred to the role of technology in education which signifies the use of audio-visual equipment. Later developments recognized the concept of technology of education i.e., techniques and methodologies of the teaching and learning process. Thus educational technology accepts into its fold both technology of education and technology in education.

S.S.Kulkarni defines Educational Technology as the application of the laws as well as recent discoveries of science and technology to the process of education.

Educational technology, especially computers and computer-related peripherals, have grown tremendously and have permeated all areas of our lives. The technology is becoming an increasingly vital tool in our information society. The unavoidable fact is that successful improvement of technology in education is of high importance to our future. According to educational researchers and practitioners’ technology use to be successful in our schools, it needed to be closely tied to school reform.³

Teaching is changing and in many ways becoming a more difficult job because of increasingly numerous contradictory expectations. In an age of information overload with the expectation, students will learn high-level skills such as how to access, evaluate, analyze and synthesize vast quantities of information. At the same time, teachers are evaluated by their ability to have students pass tests that often give no value to these abilities.

Modern education differs from the ancient education quite substantially not only in subject content but also in emphasis and approach. In the present technological and psychological age, the application of scientific and technological knowledge is much essential for the curriculum construction, which has become a very tedious job in the field of education. It can be simplified with the help of Educational Technology. Educational technology brings desired improvement in teaching-learning process by making it effective. It develops to the maximum the cognitive, affective and psychomotor aspects of the pupils.

Fig. 1.2 : Educational Technology
Educational technology modernizes the learning methods and techniques after systematizing them so that these may be turned effective according to the needs of the changing era for the unknown future. It makes desirable modifications in the behaviour of the teachers and pupils by improving the teaching, learning and evaluation conditions. It has maximized the learning facilities because it uses the principles indoctrinated by Psychology, Sociology, Mathematics, Engineering and other social and scientific subjects. Their input maximizes their output in the form of their competency by this Technology.

1.3 BUSINESS EDUCATION IN EDUCATION

Demand for Business Education arose from the private sector of the economy for trained employees. When response from educational institutions did not supply the demand, private enterprise met the challenge by organizing profit-making schools, which remained the dominant influence in Business Education for several decades. As the economy expanded; as more opportunities arose for trained business workers; as factories brought more people from farms to the cities, as industrialization spread and increased the demand for clerical and other business workers; society demanded that this type of education be offered in State and government schools. So Business Education became a part of the Indian system of education. These demands by economy and society formed the socio-economic foundations for Commerce Education.\(^4\)

A.S Daughtrey (1974) explains graphically the philosophy and role of Business Education in education.

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1.3.1 Nature of Business

The word 'Business' refers to all those activities which are concerned with the production or purchase of goods and services with the object of selling them at a profit. The term 'Business' is a comprehensive one, in which the study of commerce is also included. The study of production, sale-purchase of goods and the institutions which are helpful to trade is done under 'Business'.

According to "Dictionary of Business and Finance" by Clark and Gottfried Business means "any and all of those activities connected with the
production and exchange of goods or services and the financial affairs connected with these activities”.

1.3.2 Components of Business

The term 'Business' is of a very wide import and includes a number of activities. The main activities included in business are two. They are:

i) Industry and ii) Commerce

Fig.1.4 : Components of Business

![Diagram of Business Components]

1.3.3 Industry

Industry is a branch of business activity concerned with the production or manufacture of goods – both the producers' and the consumers' goods. The goods may be produced either for final consumption or for use by another businessman for further transformation into finished products. Commerce and Industry are very intimately related as commerce is completely dependent upon industry. There cannot be commerce in the absence of industry. Commerce and Industry- both put together constitute business.

1.3.4 Commerce

Commerce is an important component of business as it has vast scope. Commerce refers to an “organized system for the exchange of goods between the members of the industrial world”. Commerce means the transfer of goods and services either from one person to another or from one country to another. The activities that are required for the purpose of transferring the goods from the producer to the consumer are collectively known as Commerce.
Stephenson in his "Principles and Practice of Commerce" defines Commerce as 'the sum total of those processes which are engaged in the removal of hindrances of persons, place and time in the exchange of commodities'. It would be found from the definition that trading activities cover the sale or transfer of goods, transport and insurance, warehousing and banking activities.

Therefore Buying and selling, Home trade and International trade, production, warehousing, marketing and pricing, transport and communications, insurance and banking can be described as the divisions of Commerce. So it is obvious that commerce plays a predominant role in the life of a man and it touches every aspect of human activity.

All these activities are called commercial activities and fall within the jurisdiction of Commerce. Thus in commerce are included all the activities which are concerned with making available the products manufactured to the final consumers. These activities are primarily of two types: i) Trade ii) Aids to Trade

Fig.1.5 : Division of Commerce
1.4 IMPORTANCE OF COMMERCE

The importance of Commerce is that it is responsible for the smooth flow of goods and services from the source of supply to the centres of consumption all over the world. With the development of Commerce, several products enjoy a world-wide market. Commerce is responsible for the equalization of prices of commodities in the international market as well as exchange of ideas and culture which pave the way for international integration. Commerce is greatly responsible for the emergence of a number of industries for production of goods and services required by the community.

1.4.1 Life-line of material civilization

Commerce is the life-line of the present prosperous material civilization. Without commerce one cannot imagine the present progress and development either of a particular country or of the whole world.

1.4.2 Focus of the Society

Commerce has become like an axle today around which the present society revolves. Men's living, food and intellectual and material development, everything is affected by commerce.

1.4.3 Encouragement to Scientific Development

Competition in business has encouraged scientific development. The necessity of producing good quality commodities at lowest possible price and of designing new products has led to several inventions and encouraged the modern industrialization.

1.4.4 Political Importance

Political importance of the commerce is not small. It brings different nations close to one another. Rules and regulations controlling and guiding trade are proofs of closeness of mutual relation among the nations.
1.4.5 Maximum population employed in trade and its subsidiary areas

Maximum numbers of people in the world are engaged in trade and its subsidiary areas. Depression or boom in trade affects the whole national economy and sometimes their effects extend to the whole world. Seldom there is a part of our daily life which is not affected by trade.

No other factor has contributed so much to the happiness of human life and prosperity of society, as has been done by the Commerce. Commerce and human civilization are fellow travellers.

1.5 COMMERCE EDUCATION

Leverett. S.Lyen defined Commerce Education as "any education which a businessman has and which makes him a better businessman, is for him business education, no matter whether it was obtained in the walls of a school or not".

Commerce Education has assumed paramount importance in all walks of life. Commerce Education is considered as good education because of the distinct advantages that a commerce student has over his counter-part in the arts faculty. By Commerce Education, an individual not only achieves training and perfection, but also a general professional knowledge.

"Commerce education got some impetus in conjunction with the growth in the volume of the business. The constantly growing demand for bookkeepers, accountants, and clerical workers made commerce education a very desirably addition to secondary school programme."

Commerce has an important place in everyday human life. It is necessary for everyone to have some knowledge of Commerce in his or her day-to-day life. Commerce deals with some aspects of man's activity.

Commerce Education assists man in satisfying his wants efficiently. Commerce means not only exchange of goods but also includes other services like Transport, Warehouse, Banking, and Insurance which help in exchanging goods.

Commerce is not static but dynamic. It is a subject, which has grown and developed through ages. Starting from the crude form of exchange known as ‘Barter’ it has reached gigantic proportions of our modern complex changes. The meteoric growth and development of various forms of Commerce has been the result of the Industrial Revolution.

Commerce is a Science. It approaches its subject matter with scientific outlook. Since Commerce is a Science in the sense of i) Classification of facts ii) ascertainment of their mutual relation iii) description of their sequence, it is must for the students to earn their livelihood.

Commerce is a section of Economic study, Since Economics is a science which studies the activities of man in relation to the satisfaction of his unlimited wants with limited resources, and Commerce Education develops critical thinking in the students.  

1.5.1 Importance of Commerce Education

Commerce demands a systematic study. The learning of Commerce is necessitated by various factors. A sound knowledge in Commerce is a must for the learning of other branches of study by virtue of its close affinity with other areas of study like Economics.

Commerce Education is not inferior education. The Scottish Education Department in its booklet on the commercial subjects in secondary schools, stresses that “the function of Commercial Educations is not merely to satisfy the vocational needs of the pupils but also to foster an understanding of the economy of the community in which they will be called to play a part”.

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Commerce education occupies a prominent place in curriculum both at school and university stages of education in India. Commerce is both an academic discipline and a vocational subject. Commerce is both a knowledge subject and a skill subject.

Mr. Graham Savage of the London County Council in his pamphlet on "Commercial Studies in Secondary Schools" explains that "the essential function of a secondary school commercial course should be to give the pupils a knowledge of the background of commerce of the way it affects the life of the community; the pupil's interest in commerce cannot, therefore, be confined to subjects which are specially commercial, but will influence their approach to other subjects."^7

Commerce Education is both an academic discipline and a vocational subject. Commerce area is both a knowledge subject and skill subject. The objectives of the study of commerce are both preparatory to further studies in colleges or high education and terminal to enter into the careers of middle level of employment.

Commerce and Economics are closely related to each other. Economics provides the base of commerce as a subject of study. The development of commerce is linked with the economic development of the society. Likewise the development of commerce as a discipline is looked with the development of Economics as a discipline. Commerce is regarded as a practical application of economic principles.

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school and university stages of education in India. Commerce is both an
academic discipline and a vocational subject. Commerce is both a knowledge
subject and a skill subject. The objectives of the study of commerce are both
preparatory to further studies in colleges or high education and terminal to
enter into the careers of middle level lines of employment. Study of
Commerce should enable an individual to Cultural values, Disciplinary Values,
Practical Values and Social Values.

1.5.2 Objectives of Teaching Commerce

The main objective of Commerce education is to impart knowledge
which should help the pupil in their daily life. It should make the pupil fit for the
society.

To impart knowledge is the basic aim and objective of education and
so it is naturally the basic aim of teaching of any subject including commerce.
By imparting knowledge of commerce to the student it is expected that pupil
acquire the knowledge about the nature, functions and responsibilities of
commerce in society.

The objectives of the study of commerce are both preparatory to further
studies in colleges or high education and terminal to enter into the careers of
middle level lines of employment.

The following are the important aims of teaching Commerce at the
school and college levels:

i) To make students understand the importance of nature of trade and
activities in trade, commerce and business.

ii) To enable students to undertake various banking activities.

iii) To develop various fundamental principles of economic implications of
business investments so that they may understand as to how to do
business and how to make investments in business and trade.
iv) To make students understand about transportation, information and broadcasting and to understand as to how do they benefit individuals, the society and the nation.

v) To develop students capacity to appreciate the services rendered national and international trade and commerce.

vi) To provide the students with such experiences that enables them in understanding the economic relations of the world and become intelligent participant in community and national affairs.

vii) To help students to develop skills of organizing and managing different business machineries so that they may be able to acquaint themselves with routine of the office.

viii) To develop in students the skills in preparing notes and drafts of official activities.

ix) To provide to students some background information that may help them in their effort on studying vocational know-how and techniques of applying them in business.

x) To help the students to prosecute their higher education with better and complex skills needed at that stage.

xi) To develop students knowledge about various business practices and procedural.

xii) To appreciate the activities of the various instruments of business credits adopted by business houses.

xiii) To enable the pupils to analyze financial statements and interpret the results for decision making.

xiv) To create an awareness of the necessity of auditing the detection/rectification of errors/frauds in the process of accounting.
xv) To acquaint students with the application of statistical tools in the area of business decision-making.

xvi) To familiarize the students with the finance function and acquaint them with working knowledge of various techniques of financial decision making.

xvii) To provide knowledge of accounting principles and their application in different business situation.

xviii) To impart knowledge of the principles, methods and techniques of auditing and their application.

xix) To familiarize the students with the basic concepts and practices of marketing.

1.6 TEACHING THROUGH TRADITIONAL LECTURE METHOD

It is one of the oldest methods of teaching. It refers to teaching procedure involved in the clarification or explanation to the students of some major ideas. It is the most commonly and traditionally used method through ages. It is mostly a teacher-centered and expository method involving one way communication and transmitting good quantum of knowledge or subject matter to a large number of individuals.

Lecture is also found to be a feasible method of teaching in higher classes to the students who are motivated and required to achieve the desired learning objectives. In this method the teacher delivers a well organized lecture before the students. In this method teacher is more active and the students are passive. In this method, the teacher puts down the topic first and then starts putting forward his lecture. This method is used to clarify matter to expand content and motivate the students. This method is very economical and a large number of students can be taught at a time.

By changing voice, by impersonating characters, by shifting his position and by using simple devices, a teacher can deliver his lesson effectively. While delivering lecture, a teacher can indicate by facial expression, gestures and tones the exact shade of meaning.

According to James Michael Lee, “The Lecture is a pedagogical method whereby the teacher formally delivers a carefully planned expository address on some particular topic or problem.”

1.6.1 Advantages of Traditional Lecture Method:

Traditional Lecture method is very economical as it needs no apparatus and no laboratory. A large number of students can be taught at a time. It saves time and covers syllabus in a limited time. It is very effective in giving factual information and in relating some of the thrilling anecdotes with historical lessons. The life stories of great adventures, experimenters, investigators and thinkers can become very interesting and valuable talks by a teacher.

A well-prepared and well-delivered lecture saves the time of the students. By resorting this method, the teacher is also to handle big classes, thereby effecting saving on account of engagement of several teachers. A good lecture not only stimulates the students but also lingers long in their imagination. It motivates students to become good orators. It provides flexibility. As the teacher is in close and intimate contact with his pupils, he can adjust his technique in accordance with their abilities, aptitudes and interests. It develops the power of concentration in the students and also their power of expression, thinking and reasoning.

This method is very useful in introducing a lesson. It also throws light on the practical aspects of education. It keeps both the teacher as well as the students active. It is possible to establish a direct contact between the teacher and the taught. The subject-matter may be presented in a systematic manner. It is possible to elucidate the difficult and complicated thoughts and ideas. It provides better scope for clarification and for laying stress on significant ideas.
It enables the linkage of previous knowledge with the new one. It provides opportunities of correlating events and subjects. It gives the students training in listening and taking notes rapidly and develops good audience habits.

1.6.2 Limitations of Traditional Lecture Method

The knowledge acquired through this method is neither complete nor perfect and not stable. In this method individual difference of students does not taken into consideration. It has very little scope for evaluation and examination of the students by the teacher, while teaching them. It is not possible for the teacher to make teaching lively since requisite element does not available.

It is against the principle of "learning by doing". An average student may not be able to fix up his attention to lecture. Lecture method is a one way communication. The lecture proceeds to deliver a speech without getting or without caring to get the reaction from the audience. Learning is an active process. But in the lecture method, students become passive audience without getting any scope for interaction and participation.

Lecture method does not wait for interaction and discussion with the students; it develops deadening monopoly in the class. It is not useful for the students of the lower classes. It is not possible to provide practical education to the students, because there is very little possibility of creativeness or activity in this method. It has very little scope for evaluation and examination of the students by the teacher, while he is teaching them. It strikes a severe below on the originality of the students. Their curiosity remains unsatisfied and the thirst for knowledge continues.

It is possible for the teacher to conceal his weakness. He can start giving dictations instead of delivering a well organized lecture. It is not possible to provide practical education to the students, because there is very little possibility of creativeness or activity in this method. The success of this method is very doubtful in a country like India due to dearth of good text-
books and able teachers. It spoon-feeds the students without developing their power of reasoning. Speed of the lecture may be too fast for the learner to grasp the line of thought. An average student may not be able to fix up his attention to a lecture of forty to forty-five minutes. A lecture may become monotonous to the students after a while. Very few teachers can keep the interest of the student up to the end.

1.7 COMPUTER AIDED INSTRUCTION (CAI)

Computer Aided Instruction (CAI) as the name suggests stands for the type of instruction aided or carried out with the help of a computer as a machine. It is just one step ahead to the use of teaching machine and probably two to the use of programmed text books in making the instructional process as self-directed and individualized as possible. The computer is said to be ahead of the teaching machine on account of its unlimited number of individual learners than the teaching machine. In computer assisted instruction there is an interaction between an individual student and the computer just as happens in tutorial system between teacher and an individual student. Computer is able to display the instructional material to the individual student. The individual student takes benefit of the displayed material and responds to it. These responses are attended by the computer for deciding the future course of instruction displayed to the learner. The interaction between the individual learner and the computer device helps in the realization of the set instructional objectives.

Computer Aided Instruction (CAI) is an interesting innovation in educational technology. It seems to revolutionize the whole spectrum of education. It has better flexibility and more versatility than any of the teaching machine. It can cater to the individual needs of many students at a time and record all the responses of all the pupils with reliability. Computer Assisted Instruction produces learning experience effectively and efficiently.

1.8 COMPUTER AIDED INSTRUCTION IN COMMERCE

It is now well recognized that to keep teaching interesting and make it effective, we have to make use of Computers in teaching. The National Council of Educational Research (NCERT), has taken up a major role in this task. In addition to text books, the major important representation of Information Technology in Commerce is the presentation and use of teaching aids. In order to make the teaching of Commerce interesting, effective and realistic, certain things are required. For the teaching of commerce these things are also useful. These things have their effect on the sense organ of students and so a coordinative teaching is possible. In the education today an attempt is made to coordinate the working of Head, Hands, Eyes and ears. It can be achieved by proper use of teaching aids.

Psychology of using teaching aids in teaching. Research done by Cobun indicated that:

1 percent of what is learned is from the sense of TASTE.
1.5 percent of what is learned is from the sense of TOUCH.
3.5 percent of what is learned is from the sense of SMELL.
11 percent of what is learned is from the sense of HEARING.
83 percent of what is learned is from the sense of SIGHT. 10

Computers as a teaching aid help to develop animated and simulated programmes in Commerce, which are designed to depict the real-world happening without the danger, expense or time need to experience the actual event. Simulation permits learning experiences that are simply beyond the capability of textbooks besides involving the learner in the Instructional process and thereby permitting learning to be internalized through continuous practice in life-like situation. With the advent of Information Technology the learner is not much dependent on the teacher for formal interaction. When a

teacher is teaching a variety of information added with graphics, text, video, etc., it can help the learner to understand the difficult concept clearly. The use of sound, colour, video, rapid references in the form of glossaries and background details will enhance the valuable teaching reference tool. ‘A picture is worth a thousand words’. But with the help of informational technology one can use not just pictures, but also animations and simulations. One can produce excellent softwares and hard wares which will provide virtual classrooms and educational channels, which will organize the transmitted informational units to develop personalities and educated ness amongst the individuals and that too at a massive level.

Teaching Transport and Advertising chapters in Commerce and its units, namely, Pack animals, Tramways, Railway Transport, Inland waterways, Ocean transport, Liners, Cargo Liners, Tramps, Container Ships, Tankers, Bulk Carriers, Lorry Containers, Ship Containers, Air containers in the form of animated pictures through Computer Aided Instruction makes the teaching and learning of Commerce fun. Learners are able to visualize them. Computer Aided teaching provides a variety of learning experiences with animation. It also increases the rate of retention among the learners.

The effect of Computer Aided teaching changes the present teacher oriented system to a learner oriented one to some extent. In this way, the teacher can help the learner to understand the difficult concept clearly. It is apparent that computers provide the software to develop these required skills amongst teachers and the teachers should also have the will to prepare such softwares and get more and more skilled in the job to teach and educate the individuals, that too at a massive level. The organized informational materials hold the potentials for a genuine teaching-learning experience but teachers need the skills to make these potentials realize in actual situations where they are teach to individuals. Trainees can also study Commerce at home using this software at their own pace. The control of the software programme developed is with the user by pressing a key or clicking a button or touching a screen.
Computer Aided teaching in education and training has enhanced the ability of quality of education in various educational organization and training institutes. Educators strongly feel that Computer Aided Instruction is the most valuable tool to overcome the problem of illiteracy.

1.9 TITLE OF THE STUDY

"EFFECT OF COMPUTER AIDED INSTRUCTION IN ENHANCING THE ACADEMIC ACHIEVEMENT OF HIGHER SECONDARY STUDENTS IN COMMERCE" is the topic, which has been taken by the investigator.

1.10 STATEMENT OF THE PROBLEM

An appropriate educational technology in the hands of a competent teacher can ensure better teaching-learning process. In the fast developing world, where knowledge explosion is taking place, it is unreasonable to expect that mere spoken or written words alone could convey the relevant information to the student in the attention-winning manner. Learning through computers will remain longer in the memory of the learner as the learner learns through different senses.

The student studying Commerce at Higher Secondary School level memorizes the difficult concepts and principles in Commerce as they have no foundation in Commerce concepts at High School level. Commerce like any arts subjects needs systematic study. In the traditional lecture method of teaching Commerce there is no fun. The ordinary teaching in the classroom is usually dull. Students at the higher secondary level must learn the subject with better understanding and conceptual clarity.

Computer has dominated in almost all fields. The Computer Aided teaching in Commerce can be developed and its effectiveness can be assessed. Many countries are trying to solve the problems in the teaching-learning process by means of modern Computer Aided Instruction systems. An attempt in CAI is made in the study of Commerce at the higher secondary school level and its effectiveness is identified in this piece of research work.
1.11 NEED FOR THE STUDY

The investigator as a teacher at the higher secondary level identified the various deficiencies of the students in learning Commerce at school level and hence felt an urgent need to go in for a strategy or technique that enables the learners at the higher education to learn commerce concepts with ease and interest. Their inability to learn Commerce leads to their failure in Commerce in the public examinations.

In addition to the unfavourable socio-economic factor, another detrimental factor in the classroom is the students of various intelligence levels. Every student is unique in his capacity to learn as a result of his variation in interest, intelligence, abilities, attitudes and aptitudes. Some students were very dull, some were average and only a few were intelligent. Therefore the compulsion of adopting a technique of teaching that will be appealing to all the students with diverse intelligence levels and at the same time helping their mastery level learning too. Hence it was thought that the Computer could be used as an aid in teaching Commerce. In the case of difficult chapters the Computer Aided teaching may help the students more than the ordinary lecture method. This thought gave an impetus to the researcher;

The Computer Aided teaching is the need of the day. It should be kept in mind that it is one of the various modes of delivery of education. It is not the only mode. It has certain advantages. Use of most of other educational technology aids has been reduced substantially now since computers can do all the things to facilitate qualitative teaching. Keeping pace with the emerging needs and opportunities, it is needed to incorporate the technological developments in the teaching and learning process. The Computer Aided teaching material in Commerce to be developed and tried out by the investigator could help the teachers to apply the same in their day-to-day teaching process and also enable them to prepare the teaching material in the other topics in Commerce.
Experience has revealed that Computer Aided teaching strengthens the hands of the teacher, makes one's teaching effective. The software materials prepared and used in specific school subjects will supplement the classroom traditional teaching. Animated teaching programmes and use of technology in teaching encourages a move away from the teacher-centred approach. A number of institutions in the developed countries are offering courses through Computer technologies. In order to cope up with the technological revolution in the teaching-learning process of the developed countries, it is indispensable to incorporate these technological advancements in the Indian classrooms. Computer Aided Teaching is a comparatively new area in India on which adequate amounts of researches are yet to be undertaken. In order to promote Computer Aided teaching, computers have been provided to all the higher secondary schools.

The investigator analysed the above said facts and tried to implement the new ideas through his ten years of teaching experience at higher secondary level and hence this attempt to identify the potentials of the CAI and to develop a CAI material and to tryout its effectiveness in enhancing the learning abilities of the students in Commerce at the higher secondary level and also to identify its superiority over the traditional lecture method of teaching.

1.12 SIGNIFICANCE OF THE STUDY

The Computer Aided teaching material in Commerce developed and tried out by the investigator could help the teachers to apply the same in their day-to-day teaching process and also enable them to prepare the teaching material in other topics in Commerce. The Computer Aided teaching material developed includes text, sound, animation and video to convey information. The technology of teaching through computers would revolutionize the entire structure of the teaching-learning process. Some obvious advantages offered by this change. It can include picture, audio, programming Instruction and animations. It provides clear and well-defined Instructional objectives through
preparation of content and offers support for both learners and staff. Abstract concepts can be easily explained with the help of animation and graphics. More information will be provided in short duration of time. So energy and time will be saved. The textbook-writers, curriculum planners and policy-makers in education in general and Commerce education in particular could be benefited much from the finding of this research. Students at the higher secondary level may develop an interest in Computer Aided teaching and learning which could prove more effective than the traditional lecturing method with all its inherent weaknesses.

The students may grasp the ideas in Commerce very sharply through the CAI material which are prepared in a step by step manner and in a logical sequence as followed in Programmed Instruction. The pictures and animations are included in the necessary and appropriate places help the learners to understand the commercial concepts without any lacuna and thus the learners enjoy their learning with animations. Many concepts in Transport and Advertisement from Commerce are more abstract and they are clearly taught to the learner with effective animations and picture. The fruitfulness of this research attempt will pave way for the development of more CAI materials in the other units of Commerce and in the other subjects not only at the school level but also in college levels.

At this Juncture the present study entitled “Effect of Computer Aided Instruction in enhancing the academic achievements of Higher Secondary Students in Commerce” assumes significance because the findings and recommendations of the study, if implemented, can go a long way in improving the standard of the students in Commerce fulfilling the objectives for which the Commerce education is imparted to the learners.

1.13 SCOPE OF THE STUDY

This study focuses its attention on the development of Computer Aided Instructional material for higher secondary learners to teach Commerce. One of the aims of the study is to improve the academic achievement of higher
secondary students by means of Instructional material prepared by the investigator. An attempt was made to test the effectiveness of the Computer Aided Instruction based on the CAI material developed at higher secondary level especially in the Commerce subject.

Moreover, the investigator has been working as a teacher for higher secondary commerce group students at Sri N.K.C. Government Girls Higher Secondary School, Pondicherry, for about 12 years. Since Commerce and Accountancy are the main subjects in the higher secondary course, the students have to score more marks in the subjects to get admission for higher studies in colleges.

Moreover, the valuable information he got from the experts in the field and also with the consultation of his counterparts in other schools and his long association with the teaching experience in the higher secondary level, enlightened the investigator to evolve a new strategy rather than traditional lecture method, which will pave way for scoring more marks in the commerce subject and to enhance the learning concept in Commerce by developing a Computer Aided Instructional material at least in a few topics in Commerce. This strategy is validated by the investigator through the present research.

1.14 LIMITATIONS OF THE STUDY

The following were the limitations of the study:


2. The study was conducted only to the I-Year Higher Secondary Course students (XI-Std.) of Sri N.K.C. Government Girls Higher Secondary School, Pondicherry and Jeevanandam Government Boys Higher Secondary School, Karamanikuppam, Pondicherry.
3. This study was not conducted to the II-year Higher Secondary Course students (XII-Std.). The study was conducted only in the classrooms.

4. The investigator did not prepare the Computer Aided Instructional material for all the units of Commerce for I-year students. The investigator selected only two units, namely, Transport and Advertisement from I-Year Commerce syllabus.

1.15 ORGANISATION OF CHAPTERS

This research report is divided into seven chapters followed by Bibliography and Appendices.

The first introductory chapter deals with Importance of Education, Commerce Education, objectives of Commerce Education, Computer Education, Statement of the Problem, Need for the Study, Significance of the study, Scope of the study and Limitations of the study.

The second chapter includes review of related research work done in India and abroad.

The third chapter Methodology deals with Design of Study, Experimental Design, Construction and validation of achievement test tool, and Learners’ Attitude Scale.

The fourth chapter discusses an overview of Computer Aided Instruction, different form of Instructions through computer, need and advantages of Computer Aided Instruction.

The fifth chapter discusses in detail the descriptive analysis of designing Computer Aided Instructional material for Commerce curriculum.
The sixth chapter consists of an empirical analysis of Computer Aided Instruction and interpretation of data.

The last and seventh chapter comprises a brief summary of the research, findings, research implications, recommendations and suggestions for further research.

1.16 CONCLUSION

In this chapter, an introduction about the area of study was given. The next chapter deals with the review of related literature.