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CHAPTER – I
INTRODUCTION

1.0 PREFACE

Walking through any educational environment, from preschool to post secondary, they are bound around to see examples of cooperative learning in action. Cooperative learning is applied in a wide range of settings, with all age groups, in diverse disciplines. In present-day social studies classrooms, cooperative learning appears especially frequently, in a wide variety of forms. The popularity of cooperative learning methods in social studies classrooms is due, at least in part, to their effects on the social development of students. In addition to strengthening and expanding students’ grasp of the formal curriculum, they impact affective outcomes inherent to social studies outcomes beyond curriculum mastery.

Although cooperative learning is a powerful tool with which accomplishes academic, social, and affective goals, it takes more than simply allowing children to work together in groups, an activity to which the cooperative learning label is often misguided affixed. More than twenty-five years of experimental research in schools indicates that outcomes, particularly achievement outcomes, are affected by how teachers structure and implement cooperative learning methods. One can think about effective use of cooperative learning in social studies as being attentive to both the social and the studies.

Information technologies and economic reforms have brought about social, political and economic changes throughout the world. Developments in information technologies have reshaped people’s views
towards themselves and their environments, as a result of which a parallel change and development at the same pace has become inevitable in the field of geography education. This change is determined by numerous factors. One of the most important among these factors is teachers, which is undoubtedly followed by information technologies. A teacher has a crucial function in managing information technologies and establishing a link between students and information technologies (Oral, 2004).

It is indisputably accepted that the use of information technologies in geography education will greatly facilitate and access and transmission of information (Deniz, 1994). Today, the first thing that comes to mind about the impact of technology on education is computers and internet use. Computers and the Internet which have become an integral part of daily life could not have been expected to be left out of teaching-learning environments (Deniz, 1994). Computers and internet use have come to the foreground in the recent practices in geography education. In particular, Geographical Information Systems (GIS) take the lead in this respect and there have been important attempts to introduce these systems into geography education (Bednarz 2004).

The present world is in the process of technological revolution. Modern technological advances demand the variety of well-trained manpower of various grades, which can read, write, compute and have learnt how to learn. This social pressure laid down schools to prepare courses according to manpower needs. Success of any democratic government rests on its citizens who know problems and issues facing the nation. The science of geography is changing rapidly. Social and technical progress depends more and more on up-to-date geography in an increasing range of professions. This is because geography is
becoming a more flexible tool than it ever was in many fields of life and culture, old and new alike.

Scientific knowledge tallies with the actual phenomena of nature. Scientific study reveals that a particular phenomenon of nature is basically structured and there is systematic relationship between these structural aspects of phenomenon. This can be precisely state in exact quantities and this relationship can be precisely state in geographical equations. Ordinary language is incapable of stating the relationship between the quantified aspects of phenomenon in exact terms; and even if it can, it is usually cumbersome in its expression. A geographical equation, on the other hand, describing the relationship between the aspects of a phenomenon is not only precise but also brief, Dasgupta (1999)

Geography is the study of places and the relationships between people and their environments. Geographers explore both the physical properties of Earth’s surface and the human societies spread across it. They also examine how human culture interacts with the natural environment and the way that location and places can have an impact on people. Geography seeks to understand where things are found, why they are there, and how they develop and change over time.

Geography plays an important role in life. All persons in all fields have to make use of geographical facts. The development of various occupations like engineering, medical, industry etc., depend upon the development of Geography. According to Napoleon (1737), "The progress and improvement of Geography are linked to the prosperity of the state". It has raised man from the primitive age to the most modern world. It
can be said that Geography is a great catalyst and without this catalyst there is no survival. Geography will continue to exist in its many forms.

Geography is an intellectual activity of the highest order any piece of reasoning, which doesn't provide sufficient 'kick' to the human mind, hardly deserves to be called Geography. Geography is a wide-ranging and all pervading branch of learning. Geography is a thoughtful logical enterprise; sometime it is intuitive enterprise also.

According to Martin (1996), "Geography continues to serve as the common language for many disciplines and it also furnishes an underlying structure for many of them while no other discipline of our method of teaching can solve the problem of unification, Geography can be helpful in the attempt".

The earliest recorded history reveals that some familiarity with Geography has been regarded as an indisputable, tool of practical utility and also an essential element of intellectual equipment of every cultured person. Geography has been defined as a science of number and space. It is the science of logical reasoning. Its conclusions are based on definite reasoning. It helps in drawing necessary conclusions and interpreting various ideas with useful meaning. In fact, Geography has its own language, its own tools and mode of operations. Hence, Geography is considered as "Science of all Sciences and Art of all Arts".

Today society is moving into a technological era. The mere acquisition of arithmetical skills is not sufficient; the society needs people with sound geographical skills. The Geography curriculum has therefore, been undergoing changes from time to time. In the sixties, there was the wave of modern Geography throughout the world and so in
India. Whether the program of "Modern Geography" is successful or not, is not relevant for us. But qualitatively better Geography education is the need of the day – National Council of Education Research and Training (NCERT, 1987).

According to the National Assessment of Educational Progress (NAEP, 1991), Geography literacy is one of the most important keys to quality life now and in the future, and ensuring access and equity for all students.

Geography is a self-contained microcosm, but it also has the potentiality of mirroring and modeling all the processes of thought perhaps all of science. It has always had, and continues to an ever-increasing degree to have, great usefulness. One could even go so far as to say that Geography was necessary for man’s conquest of nature and for the development of the human race through the shaping of its modes of thinking (Mark Kac, 1971).

Technology, too, may have a profound effect on Geography, having made possible the development of high-speed computers; it has increased immeasurably the scope of experimentation in Geography itself. Packiam (1990) while discussing the importance of Geography it points out that, in the computer conscious world of today, Geography is also playing an important role and the future is going to be more geographically inclined. The basic knowledge of modern Geography is vital in day-to-day life. It should not consist of formulae and theorems merely as a rigid discipline. It should complete its mission as a basic science, with a large variety of applications. Modern civilization stands on a foundation of applied Geography; without Geography the earth could not support the present population.
In spite of widespread discussion of the 'New Geography', there are still people who think of Geography as a 'dead' subject. Such people are very much surprised to learn that the 20th century, especially the past 25 years has proved to be a 'Golden Age' for new discoveries in Geography.

Geography with its own language and symbolism and having capabilities of expressing nature and establishing relationship between Natural Geography through its language and symbolism has made the subject very much listening. In the process of establishing relationship between Nature and Geography, gives much scope for exploration of nature by logical thinking. The logical thinking leads to development of reasoning ability. The reasoning in Geography is of peculiar kind and possesses a number of characteristics. Due to these characteristics the learning of subject Geography becomes more prominent in this ever-advancing society as Geography has vast scope of application in other fields of advancement. But there are major factors of life that requires the examination of new role that geographical education has to play in preparing the citizens for the scientific, technological and industrial society, which is in the process of creating new world. The two important factors that could be observed are:

(i) The expansion in the geographical knowledge and new ways of conceiving basic concepts in Geography.

(ii) The increasing dependence of scientific thought and of almost every professional career, skilled and semi-skilled is based on geographical methods.

National Education Commission (1964-66) pointed out that, one cannot overstress the importance of Geography in relation to science education and research. This has always be greater than today. It is
important that deliberate effort is made, to place India on the "World Map of Geography". The National Core Curriculum of Geography (1986), has emphasized more importance on developing thinking and reasoning skills, and conceptual approach that gives more importance to discovery and understanding of concepts and ideas rather than mere mastery of isolated facts and techniques. The focus is on encouraging students to seek out and discover ideas for them, to look for interesting patterns and relationships and to develop their own generalizations.

1.1 ROLE OF GEOGRAPHY IN SCHOOLS

Today is not same as it was in the past. Today, Geography education is under tremendous pressure due to the explosion of knowledge represented by:

(i) the psychology of learning
(ii) the change in Geography
(iii) the change in computer
(iv) the change in breadth and depth of applications of Geography and
(v) the change in educational technology.

Geography as it is taught today in most of the schools, appears to be a fragmental collection of facts, techniques and theorems, which bear little relation to each other. According to Piagetian theory of development
of child, secondary stage is "formal operation stage". At this stage, child is in a position to think logically and perform geographical deductions. The learner at this stage is able to acquire knowledge and understanding of concepts, symbols and process related to Geography and possesses the potentiality of solving problems in Geography - NCERT (1987).

The quality of education that teachers provide to student is highly dependent upon what teachers do in the classroom. Thus, in preparing the students of today to become successful individuals of tomorrow, science and Geography teachers need to ensure that their teaching is effective. Teachers should have the knowledge of how students learn Science and Geography and how best to teach. Changing the way one teaches and what one teaches in Science and Geography is a continuing professional concern. Efforts should be taken now to direct the presentation of science and Geography lessons away from the traditional methods to a more student centered approach.

In Geography, the curriculums provide students the geographical knowledge and skills and develop problem solving and decision making skills for everyday use (Ministry of Education, 2003). The Geography curriculum as well as other subjects in the secondary school curriculum also seeks to inculcate noble values and love for the nation. Despite good intentions and directions, teacher centered teaching practices still take centre stage. Two pedagogical limitations have been identified as the major shortcomings in traditional secondary education: lecture-based instruction and teacher-centered instruction. Lecture-based instruction emphasized the passive acquisition of knowledge. In such an environment, students become passive recipients of knowledge and resort to rote learning. The majority of work involved teacher-talk using
either a lecture technique or a simple question and answer that demand basic recall of knowledge from the learners.

1. **Lecture based instruction** dominates classroom activity with the teacher delivering well over 80% of the talk in most classrooms. Generally, only correct answers are accepted by the teacher and incorrect answers are simply ignored. Students seldom ask questions or exchange thought with other students in the class. The traditional classroom is also characterized by directed demonstrations and activities to verify previously introduced concepts. Instruction is therefore not for conceptual understanding but rather for memorizing and recalling of facts. It must be noted that students who develop conceptual understanding early perform best on procedural knowledge later (Grouws and Cebulla, 2000). Furthermore, students with good conceptual understanding are able to perform successfully on near transfer tasks and develop procedures and skills they have not been taught.

2. **In the traditional teacher-centered education**, the dominance of the teacher takes centre stage. The students rely on their teachers to decide what, when, and how to learn. This approach to instruction works relatively well. However, it is not clear that students are learning at higher, conceptual level of thinking.

In the recent years, cooperative learning method, which attracts the attention of many educators, constitutes an alternative to the traditional learning methods. According to Açıkgöz (1992), cooperative learning is a process in which students learn by working in small groups and helping each other’s learning for a common aim. Since cooperative learning is a group working, it is similar to the set working method. But every group working is not cooperative learning. A group working becomes
cooperative learning if every member of the group knows that he or she can't be successful unless the other members are successful.

According to Deutsh (1949); the effort of a student to reach his goal has,

a) a supportive effect in the cooperative case,

b) a obstructive effect in the competitive case,

c) a neutral effect in the individualistic case.

According to Johnson and Johnson (1991a), in order to construct a lesson with cooperative method, five basic principles must be provided.

1. positive interdependence,

2. face-to-face primitive interaction,

3. individual accountability,

4. the appropriate use of social skills,

5. processing how well the group is functioning

Geography is the queen of social science and the language of nature. Its importance should be clear to any reasonable person. It is easy however to diminish the value of certain areas of research because they are currently thought as having little practical use. Evolutionary needs to bring one’s mind to prefer knowledge that can be employed for the solution of specific problems in the real world, rather than deeply abstract ones. It is an understandable and even excusable fallacy that there are useful fields of social science and useless ones, based on the perception of their applied or theoretical nature. But it is still a misconception. Each theorem and discovery is a little piece of a larger
puzzle that we conveniently categorize into aptly labeled macro-areas. Geography is an elementary subject. It formulates the analytical mind.

Since olden days this subject is treated as the mother of all subjects. It is further regarded as the queen of all sciences. The students are to put their efforts in solving the problems. The only way of mastering Geography subject is to practice the sums at all times. For the genius people Geography is a sip of single cup of tea.

Geography teachers today are eagerly trying alternative methods in an effort to better meet the needs of their students. One wants their students to do Geography, not listen to and watch Geography being done by the teacher. One wants want their students to be excited about doing Geography. One also wants them to understand Geography, pass their classes, and stay in school. Teachers want their students to solve problems that they recognize as relevant to their lives. Some effective alternative methods currently in use for teaching Geography are the following: cooperative learning problem solving experiences, use of technology, use of manipulative, and student projects.

Discoveries and geographical ideas that are perceived as useful today because they are applicable to engineering, for example, were at a certain point in time considered absolutely abstract and useless, or at least derived or intrinsically connected to some that were. The main goal of Geography education in schools is the geographical knowledge of the child’s thinking. Clarity of thought and pursuing assumptions to logical conclusions is central to the geographical enterprise. There are many ways of thinking, and the kind of thinking one learns in Geography is an ability to handle abstractions, and an approach to problem solving.
Universalisation of schooling has important implications for Geography curriculum. Geography being a compulsory subject of study, access to quality Geography education is every child’s right. One wants Geography education that is affordable to every child, and at the same time, enjoyable. With many children exiting the system after higher classes, Geography education at the elementary stage should help children prepare for the challenges they face further in life. In our vision, school Geography takes place in a situation where:

(1) Children learn important and enjoy Geography,
(2) Geography is a part of children’s life experience which they talk about,
(3) Children pose and solve meaningful problems,
(4) Children use abstractions to perceive relationships and structure,
(5) Children understand the basic structure of Geography and
(6) Teachers expect to engage every child in class.

Geography is used throughout the world as an essential tool in many fields, including natural science, engineering, medicine, and the social sciences. Applied Geography, the branch of Geography concerned with application of geographical knowledge to other fields, inspires and makes use of new geographical discoveries and sometimes leads to the development of entirely new geographical disciplines, such as statistics and game theory. Scientist also engages in pure Geography or Geography for its own sake, without having any application in mind, although practical applications for what began as pure Geography are often discovered.
1.2 IMPORTANT OF GEOGRAPHY IN EDUCATION

The main aim of education is to develop harmonious personality of learner. Education should make pupils fit to live with. In all modern human societies the young are prepared for their future roles through educational process, which may be in the form of examination. Schools are always transitional institutions. They prepare pupils for education or for occupation or for family life and so on.

Geography provokes and answers questions about the natural and human worlds, using different scales of enquiry to view them from different perspectives. It develops knowledge of places and environments throughout the world, an understanding of maps, and a range of investigative and problem solving skills both inside and outside the classroom. As such, it prepares pupils for adult life and employment. Geography is a focus within the curriculum for understanding and resolving issues about the environment and sustainable development. It is also an important link between the natural and social sciences. As pupils study geography, they encounter different societies and cultures. This helps them realize how nations rely on each other. It can inspire them to think about their own place in the world, their values, and their rights and responsibilities to other people and the environment.

One lives in their own lives geographically. Planet Earth is our home. It is awesome, diverse, inspiring and ever changing. Studying geography invites us to participate more fully in the excitement, enjoyment and challenge of this dynamic world. It draws on personal experience, to help us better understand the places people live in, why they matter and how they are connected to a globalised world. Geography
draws from across the physical, cultural, economic and political spheres to illuminate key issues for the present and the future, explored at all scales from the personal to the local and the global. Through geography one learns to appreciate the diversity of landscapes, peoples and cultures. Geography is therefore a vital subject resource for 21st century global citizens, enabling us to face questions of what it means to live sustainably in an interdependent world. Geography helps us investigate and to think critically and creatively about the complexities of places, and different views and feelings relating to places. Geography is studied through enquiry; this requires the formulation of effective questions. Fieldwork and outdoor education are essential to geography. The subject helps develop significant elements of the skills framework, with a strong emphasis on utilising maps and visual images as well as new technologies including Geographical Information. These transferable geographical skills help to equip for lifelong learning as responsible global citizens.

Living in a world of amazing beauty, infinite complexity and rigorous challenge, Geography is the subject which opens the door to this dynamic world and prepares each one of us for the role of global citizen in the 21st century. Through studying geography, people of all ages begin to appreciate how places and landscapes are formed, how people and environments interact, what consequences arise from our everyday decisions, and what a diverse range of cultures and societies exist and interconnect. Geography is a subject which builds on young people’s own experiences, helping them to formulate questions, develop their intellectual skills and find answers to issues affecting their lives. It introduces them to distinctive investigative tools such as maps, fieldwork and the use of powerful digital communication technologies. It opens
their eyes to the beauty and wonder around them and acts as a source of inspiration and creativity. More than this, it ensures that they appreciate the complexity of attitudes and values which shape the way one uses and misuses the environment. Through geography, people learn to value and care for the planet and all its inhabitants.

Geography in the real sense is a science of space and quantity that helps in solving the problems of life needing natural phenomenon and hazards. It provides opportunities for the intellectual gymnastic of the man’s inherent powers. Teaching of Geography essentially helps the students in acquiring essential Geography knowledge, skills, interests and attitudes. It is necessary for and helpful in the realization of the practical or utilitarian value, disciplinary value and cultural value. Geography education trains students to make and use natural regions and includes the study of different areas, climate, oceanography, human races and regions.

Students and teachers often view Geography as application of procedures and formula. This perception receives support from the nature of assessment followed in most schools. Frequently, tests are designed only to assess a student’s knowledge of facts, formulae and procedure. As a result, assessment of understanding of concepts and principles is given less importance.

Children develop Geography thinking through everyday interactions in the world. In fact the everyday world of most rural children is rich in oral Geography traditions including techniques for conservation, Geography in riddles and recreation and even problem solving and optimization. These are the cognitive resources that children already have access to, and which the pedagogic processes at school can draw
upon. School experiences introduce children to more formal aspects of Geography beginning with the written representation system, formal understanding of nature and natural phenomena operations and then proceeding to many new concepts, operations and abstractions. It is well established that children’s initial understanding of Geography is ‘concrete’ and ‘contextualized’, and that learning is aided by designing tasks that involve the manipulation of concrete materials and provided in a context that enhances their meaningfulness and invites children to engage with them in a problem-solving mode. It is through such activity that children ‘construct’ Geography knowledge. Such a mode of doing Geography can also be enjoyable and satisfying to most children. Geography is hierarchical and logically structured and children’s learning is developmental.

Geography is the pivot of all civilizations. Geography is that subject which indisputably forms the very basis of entire worlds commercial and system. It is a contributory factor in the prosperity of human race. There is no science, no art and no profession where Geography does not hold a key position. The accuracy and exactness of a science is determined to a major extent by the amount of Geography utilized in it. Most of the natural sciences and philosophy are to be studied on Geography lines and without the study of Geography there would be no improvement in them. Most of the natural sciences and philosophy are to be studied on Geography lines and without the use of Geography there would be no improvement in them.

Even nature embraces Geography completely. Geography runs in the veins of natural sciences like physics and astronomy, and is inextricably incorporated with world in the natural phenomena.
Geography holds a unique place in our society today. People accept the fact that Geography is vital to the continued growth of the nation, both for expanding internal advancement and for maintenance of leading role in the world community.

Geography becomes important because it enables people to add to the understanding of environment and also because of what it does. Geography aids people in their understanding of the world in which they live and is in turn modified by the world and people’s need as they continue to develop.

The subject Geography has grown with the development of mankind from its earlier civilization up to the present modern civilization due to the felt need of the human being. Hence, no one can deny the importance of this subject because of its wide utility in human life from day to day activities to the space technology. Therefore, Geography is significant for both a scholar and a layman, though their perceptions differ. A scholar may find as a means for higher form of abstraction and a layman may look at it as a tool for solving numerical problems.

Geography is fascinating to all because of its opportunities for creation and discovery as well as for its utility. Geography is the queen of all sciences. It is basic to the understanding of every science. It enters into every walk of life. Therefore, in schools, much impetus is given to the study of Geography. It is very well established that performance in Geography is attributed to the intelligence of an individual.

Geography is more than just the science of earth taught by teachers in schools and either enjoyed or feared by many students. It plays a significant role in the lives of individuals and the world of society.
as a whole. Geography is an essential discipline recognized worldwide, and it needs to be augmented in education to equip students with skills necessary for achieving higher education, career aspirations, and for attaining personal fulfillment. Its significance to education is not limited to the following aspects.

1. **Enhances problem solving and analysis skills.** Geography enhances students' logical, functional and aesthetic skills. Problems enable students to apply their skills to both familiar and unfamiliar situations, thereby giving them the ability to use tested theory and also create their own before applying them. By developing problem solving strategies, students learn to understand problems, devise plans, carry out plans, analyze and review the accuracy of their solutions. The methods involved in problem solving develop use of reasoning, careful and reasonable argument, and decision making.

2. **Applied in daily life.** Geography is not a mere subject that prepares students for higher academic attainment or job qualification in the future. It is not all about practicing calculations in algebra, statistics and algorithms that, after all, computers are capable of doing. It is more about how it compels the human brain to formulate problems, theories and methods of solutions. It prepares children to face a variety of simple to multifaceted challenges every human being encounters on a daily basis. Irrespective of your status in life and however basic your skills are, you apply Geography. Daily activities including the mundane things you do are reliant on how to count, add or multiply. You encounter numbers every day in memorizing phone numbers, buying groceries, cooking food, balancing a budget, paying bills, estimating gasoline consumption, measuring distance and managing your time. In the fields of business and economy,
including the diverse industries existing around you, basic to complex social science applications are crucial.

3. **Base for all technologies.** Anywhere in the world, social science is employed as a key instrument in a diversity of fields such as medicine, engineering, natural science, social science, physical science, technical science, business and commerce, etc. Application of social science knowledge in every field of study and industry produces new discoveries and advancement of new disciplines. All innovations introduced worldwide, every product of technology that man gets pleasure from is a by product of Science and Social science. The ease and convenience people enjoy today from the discoveries of computers, automobiles, aircraft, household and personal gadgets would never have happened if it were not for this essential tool used in technology.

4. **Career aspirations.** Every branch of social science has distinct applications in different types of careers. The skills enhanced from practicing social science such as analyzing patterns, logical thinking, problem solving and the ability to see relationships can help you prepare for your chosen career and enable you to compete for interesting and high-paying jobs against people around the globe. Even if you do not take up social science-intensive courses, you have the edge to compete against other job applicants if you have a strong Geography background, as industries are constantly evolving together with fast-paced technology.

Since Geography encompasses all aspects of human life, it is unquestionably important in education to help students and all people from all walks of life perform daily tasks efficiently and become
productive, well-informed, functional, independent individuals and members of a society where Social science is a fundamental component

Importance of Geography can be followed with acquiring values like:

(i) Individual value
(ii) Practical value
(iii) Social, moral and spiritual value
(iv) Aesthetic value
(v) Cultural value
(vi) Disciplinary value
(vii) Vocational value
(viii) Proper use of leisure.

Geography is primarily taught for mental and physical training, it affords and also Geography trains the individual to solve the life problems and secondly for the knowledge of facts and symbols it imparts. This proves that true end of all Geography teaching for power and not knowledge. Some of the powers that develop after study of Geography is;

(i) Power of concentration
(ii) Power of constructive imaginative thinking or the incentive faculty
(iii) Power of objective thinking
(iv) Power of mental reliance
(v) Strengthening of will power and
(vi) Power of reasoning.

Geography is taught for its practical utility. Everyone needs Geography, in day-to-day life. A common coolie, housewife, professionalism, businessmen of all categories and many more need the fundamentals of Geography in their daily life business.
Geography is taught to indicate and develop inner abilities, attitudes and traits of the individual for the further life. To develop scientific outlook on life habits of exactness, perfection and also abilities like concentration, precision, persistence and patience to complete the work in a systematic and well-organized way. It makes the individual to develop his originality and creativity.

In short through the study of Geography individual becomes more independent, self-confidence, self-reliant, creative and original. It teaches truth and exactness morally and spiritually. It formulates habits of exact precision and right doing.

It is generally seen that the classroom teachers or researchers in comparison to cognitive achievement have paid less attention to the student’s attitude. Geography, specially, can be quoted as an example in which very few attempts at measuring attitudes towards its study have been made. Geography is generally regarded as a difficult subject. Now models of teaching, innovation and new modern techniques of teaching Geography have not changed the situation.

1.3 MODELS OF TEACHING

Eggan (1979) “Teaching models are prescriptive teaching strategies designed to accomplish particular instructional goal”.

They are prescriptive in that the teacher’s responsibilities during the planning, implementing and assessment stages of instruction are clearly defined.
Joyce and Weil (1992) stated that “Teaching models are just instructional designs. They describe the process of specifying and producing environmental situations which cause the student to interact in such a way that specific change occurs in behaviour”.

Weil and Joyce (1978) stated that “A model of teaching consist of guidelines for designing educational activities and environment. It specifies the ways of teaching and learning that are intended to achieve certain kinds of goals”.

In simple language a model of teaching is a blue print designed in advance for providing necessary structure and direction to the teacher for realizing the stipulated objectives.

**General Features of Models of Teaching:**

Every model involves

- objectives
- syntax
- social system
- principles of reaction
- support system
- effects
  - Nurturant
  - Instructional

**Families of Models of Teaching**

All the models of teaching are classified into four families

1) Personal Family
2) Information Processing Family
3) Social Interaction Family
4) Behaviour Modification Family

Cooperating Learning comes in Social Interaction Model. The researcher has used cooperative learning for the research purpose.

1.4 COOPERATIVE LEARNING

“Human beings learn more, flourish, and connect more when they’re cooperating and less when they’re competing or working in isolated fashion” (Johnson and Johnson, 2002). Cooperative learning is a powerful teaching strategy that can benefit students in many ways. During cooperative learning, students work together in order to maximize their learning and each other’s learning. Students’ academic achievement can increase while they develop their social skills and confidence. The use of language can help create an understanding that is personal to each individual, while social skills are fostered. Cooperative learning has the ability to reform Geography instruction and give students opportunities to learn in an innovative and exciting way.

In the past three decades, modern cooperative learning has become a widely used instructional procedure in preschool through graduate school levels, in all subject areas, in all aspects of instruction and learning, in nontraditional as well as traditional learning situations. There is broad dissemination of cooperative learning through teacher preparation programs, in-service professional development, and practitioner publications. The use of cooperative learning so pervades education that it is difficult to find textbooks on instructional methods, teachers' journals, or instructional materials that do not mention and utilize it. While a variety of different ways of operationalizing cooperative
learning have been implemented in schools and colleges, there has been no comprehensive review of the research evidence validating the cooperative learning methods. The widespread use of cooperative learning is due to multiple factors. Three of the most important are that cooperative learning is clearly based on theory, validated by research, and operationalized into clear procedures educators can use. First, cooperative learning is based solidly on a variety of theories in anthropology (Mead, 1936), sociology (Coleman, 1961), economics (Von Mises, 1949), political science (Smith, 1759), psychology, and other social sciences. In psychology, where cooperation has received the most intense study, cooperative learning has its roots in social interdependence (Deutsch, 1949, 1962; Johnson and Johnson, 1989), cognitive-developmental (Johnson and Johnson, 1979; Piaget, 1950; Vygotsky, 1978), and behavioral learning theories (Bandura, 1977; Skinner, 1968). It is rare that an instructional procedure is central to such a wide range of social science theories.

Second, the amount, generalizability, breath, and applicability of the research on cooperative, competitive, and individualistic efforts provides considerable validation of the use of cooperative learning, perhaps more than most other instructional methods (Cohen, 1994a; Johnson, 1970; Johnson and Johnson, 1974, 1978, 1989, 1999a; Kohn, 1992; Sharan, 1980; Slavin, 1977, 1991). There are over 900 research studies validating the effectiveness of cooperative over competitive and individualistic efforts. This body of research has considerable generalizability since the research has been conducted by many different researchers with markedly different orientations working in different settings and countries and in eleven different decades, since research participants have varied widely as to cultural background, economic
class, age, and gender, and since a wide variety of research tasks and measures of the dependent variables have been used.

The research on cooperative efforts, furthermore, has unusual breath, that is, it has focused on a wide variety of diverse outcomes. Over the past 100 years researchers have focused on such diverse outcomes as achievement, higher-level reasoning, retention, time on task, transfer of learning, achievement motivation, intrinsic motivation, continuing motivation, social and cognitive development, moral reasoning, perspective-taking, interpersonal attraction, social support, friendships, reduction of stereotypes and prejudice, valuing differences, psychological health, self-esteem, social competencies, internalization of values, the quality of the learning environment, and many other outcomes. There may be no other instructional strategy that simultaneously achieves such diverse outcomes.

The diverse and positive outcomes that simultaneously result from cooperative efforts have sparked numerous research studies on cooperative learning focused on preventing and treating a wide variety of social problems such as diversity (racism, sexism, inclusion of handicapped), antisocial behavior (delinquency, drug abuse, bullying, violence, incivility), lack of prosocial values and egocentrism, alienation and loneliness, psychological pathology, low self-esteem, and many more (see reviews by Cohen, 1994a; Johnson and Johnson, 1974, 1989, 1999a; Johnson, Johnson, and Maruyama, 1983; Kohn, 1992; Sharan, 1980; Slavin, 1991). For preventing and alleviating many of the social
problems related to children, adolescents, and young adults, cooperative learning is the instructional method of choice.

The third factor contributing to the widespread use of cooperative learning is the variety of cooperative learning methods available for teacher use, ranging from very concrete and prescribed to very conceptual and flexible. Cooperative learning is actually a generic term that refers to numerous methods for organizing and conducting classroom instruction. Many teachers use cooperative learning in so many different ways. In assessing the effectiveness of specific cooperative learning methods, however, there are a number of "researcher developers" who have developed cooperative learning procedures, conducted programs of research and evaluation of their method, and then involved themselves in teacher-training programs that are commonly credited as the creators of modern-day cooperative learning.
The following ten have received the most attention (Table 1.1):

**Table 1.1: Modern Methods of Cooperative Learning**

<table>
<thead>
<tr>
<th>RESEARCHER-DEVELOPER</th>
<th>DATE</th>
<th>METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johnson and Johnson</td>
<td>Mid 1960s</td>
<td>Learning Together and alone</td>
</tr>
<tr>
<td>Devries and Edwards</td>
<td>Early 1970s</td>
<td>Teams-Games-tournaments (TGT)</td>
</tr>
<tr>
<td>Sharan and Sharan</td>
<td>Mid 1970s</td>
<td>Group Investigation</td>
</tr>
<tr>
<td>Johnson and Johnson</td>
<td>Mid 1970s</td>
<td>Constructive controversy</td>
</tr>
<tr>
<td>Aronson and Associates</td>
<td>Late 1970s</td>
<td>Jigsaw Procedure</td>
</tr>
<tr>
<td>Slavin and Associates</td>
<td>Late 1970s</td>
<td>Students Team Achievement Divisions (STAD)</td>
</tr>
<tr>
<td>Cohen</td>
<td>Early 19802</td>
<td>Complex Instruction</td>
</tr>
<tr>
<td>Slavin and Associates</td>
<td>Early 1980s</td>
<td>Team Accelerated Instruction (TAI)</td>
</tr>
<tr>
<td>Kagan</td>
<td>Mid 1980s</td>
<td>Cooperative Learning structures</td>
</tr>
<tr>
<td>Stevens, Slavin and Associates</td>
<td>Late 1980s</td>
<td>Cooperative Integrated Reading and Composition (CIRC)</td>
</tr>
</tbody>
</table>

This combination of theory, research, and practice makes cooperative learning a powerful learning procedure. Knowing that cooperative learning can have powerful effects when properly implemented does not mean, however, that all operationalizations of cooperative learning will be effective or equally effective in maximizing achievement. While many different cooperative learning methods are being advocated and used, educators have very little guidance as to
which specific cooperative learning methods will be most effective in their situation. The purpose of this study, therefore, is to examine the empirical support validating the effectiveness of the different methods of cooperative learning in maximizing achievement.

Five key elements differentiate cooperative learning from simply putting students into groups to learn (Johnson et al., 2006).

1. **Positive Interdependence**: You'll know when you've succeeded in structuring positive interdependence when students perceive that they "sink or swim together." This can be achieved through mutual goals, division of labor, dividing materials, roles, and by making part of each student's grade dependent on the performance of the rest of the group. Group members must believe that each person's efforts benefit not only him- or herself, but all group members as well.

2. **Individual Accountability**: The essence of individual accountability in cooperative learning is "students learn together, but perform alone." This ensures that no one can "hitch-hike" on the work of others. A lesson's goals must be clear enough that students are able to measure whether
   a. the group is successful in achieving them, and
   b. individual members are successful in achieving them as well.

3. **Face-to-Face (Promotive) Interaction**: Important cognitive activities and interpersonal dynamics only occur when students promote each other's learning. This includes oral explanations of how to solve problems, discussing the nature of the concepts being learned, and connecting present learning with past knowledge. It is through face-to-face, promotive interaction that members become personally committed to each other as well as to their mutual goals.
4. **Interpersonal and Small Group Social Skills**: In cooperative learning groups, students learn academic subject matter (taskwork) and also interpersonal and small group skills (teamwork). Thus, a group must know how to provide effective leadership, decision-making, trust-building, communication, and conflict management. Given the complexity of these skills, teachers can encourage much higher performance by teaching cooperative skill components within cooperative lessons. As students develop these skills, later group projects will probably run more smoothly and efficiently than early ones.

5. **Group Processing**: After completing their task, students must be given time and procedures for analyzing how well their learning groups are functioning and how well social skills are being employed. Group processing involves both taskwork and teamwork, with an eye to improving it on the next project.

   Similarly, Kagan (2003) has developed the key elements of positive interdependence, individual accountability, equal participation, and simultaneous interaction where the latter components encompass the final three described above.

   Cooperative learning techniques can be loosely categorized by the skill that each enhances (Barkley, Cross and Major, 2005), although it is important to recognize that many cooperative learning exercises can be developed to fit within multiple categories. Categories include are discussion, reciprocal teaching, graphic organizers, writing and problem solving. Each category includes a number of potential structures to guide the development of a cooperative learning exercise.
1. **Discussion**: Communicating "A good give-and-take discussion can produce unmatched learning experiences as students articulate their ideas, respond to their classmates' points, and develop skills in evaluating the evidence of their own and others' positions." (Davis, 1993)

2. **Think-pair-share**: As probably the best known cooperative learning exercise, the think-pair-share structure provides students with the opportunity to reflect on the question posed and then practice sharing and receiving potential solutions. Its simplicity provides instructors with an easy entry into cooperative learning and it is readily adaptable to a wide range of course constructs.

3. **Three-step interview**: This structure can be used both as an ice-breaker which introduces students to one another and to provide students with a venue for soliciting opinions, positions, or ideas from their peers. Students are first paired and take turns interviewing each other using a series of questions provided by the instructor. Pairs then match up and students introduce their original partner. At the end of the exercise, all four students have had their position or viewpoints on an issue heard, digested, and described by their peers.

4. **Reciprocal teaching**: explaining, providing feedback, understanding alternative perspectives Slavin (1996), in a review of hundreds of studies, concluded that "students who give each other elaborated explanations (and less consistently, those who receive such explanations) are the students who learn most in cooperative learning."

5. **Note-taking pairs**: Poor note-taking leads to poor performance. Designing an exercise which requires students to summarize their
understanding of a concept based on notes taken (with directed questions such as what is the definition of a concept, how is it used, what are the three most important characteristics of a topic) and receiving reflective feedback from their partner provides students the opportunity to find critical gaps in their written records.

6. **Jigsaw:** For more complex problems, this structure provides students the opportunity to develop expertise in one of many components of a problem by first participating in a group solely focused on a single component. In the second stage of the exercise, groups are reformed with a representative from each expert group who together now have sufficient expertise to tackle the whole problem.

7. **Graphic organizers:** discovering patterns and relationships "Graphic organizers are powerful tools for converting complex information into meaningful displays...They can provide a framework for gathering and sorting ideas for discussion, writing, and research." (Barkley, Cross and Major, 2005)

8. **Group grid:** Students practice organizing and classifying information in a table. A more complex version of this structure requires students to first identify the classification scheme that will be used.

9. **Sequence chains:** The goal of this exercise is to provide a visual representation of a series of events, actions, roles, or decisions. Students can be provided with the items to be organized or asked to first generate these based on a predetermined end goal. This structure can be made more complex by having students also identify and describe the links between each of the sequenced components.
10. Writing: organizing and synthesizing information. The Writing Across the Curriculum Clearinghouse at Colorado State University encourages the use of written assignments across the campus because it teaches students to communicate information, to clarify thinking and to learn new concepts and information.

11. Dyadic essays: Students prepare for the in-class portion of this exercise by developing an essay question and model answer based on assigned reading. Students typically need to be guided to develop questions that integrate material across classes as opposed to ones that simply recite facts presented in the reading. In class, students exchange essay questions and write a spontaneous answer essay. Students then pair up, compare and contrast the model answer and the spontaneously generated answer. Subsequently, questions and answers can be shared with the larger class.

12. Peer editing: As opposed to the editing process that often appears only at the final stage of a paper, peer editing pairs up students at the idea generation stage and peers provide feedback throughout the process. For example, the relationship begins as each student in the pair describes their topic ideas and outlines the structure of their work while their partner asks questions, and develops an outline based on what is described.

13. Problem solving: developing strategies and analysis. Research by Geography educators Vidakovic (1997) and Vidakovic and Martin (2004) shows that groups are able to solve problems more accurately than individuals working alone.

14. Send-a-problem: Students participate in a series of problem solving rounds, contributing their independently generated solution to those that have been developed by other groups. After a number of rounds,
students are asked to review the solutions developed by their peers, evaluate the answers and develop a final solution.

15. **Three-stay, one-stray:** Even students working in groups can benefit from the feedback of additional peers. In this structure, students periodically take a break from their work (often at key decision making points) and send one group member to another group to describe their progress. The role of the group is to gain information and alternative perspectives by listening and sharing. The number of times the group sends a representative to another group depends on the level of complexity of the problem. This method can also be used to report out final solutions.

The purpose of this study, therefore, is to examine the empirical support validating the effectiveness of the different methods of cooperative learning. In order to do so, it is first helpful to discuss why cooperative learning is so widely used.

**1.5 TYPES OF COOPERATIVE LEARNING:**

Some of the well known methods of the Cooperative learning are Group Investigation (GI), Learning Together (LT), Reciprocal Learning of Reading (RT), Cooperative Learning Reading and Composition (CIRC), Jigsaw, Constructive Controversy (CC) or Structured Academic Controversy (SAC), Students Team Achievement Divisions (STAD), and Teams-Games-Tournament (TGT). Some of them are explained as below:

1. **Formal:** Formal cooperative learning is structured, facilitated, and monitored by the educator over time and is used to achieve group goals in task work (e.g. completing a unit). Any course material or assignment can be adapted to this type of learning, and groups can vary from 2-6 people with discussions lasting from a few minutes up
to a period. Types of formal cooperative learning strategies include jigsaw, assignments that involve group problem solving and decision making, laboratory or experiment assignments, and peer review work (e.g. editing writing assignments). Having experience and developing skill with this type of learning often facilitates informal and base learning.

2. **Informal**: Informal cooperative learning incorporates group learning with passive teaching by drawing attention to material through small groups throughout the lesson or by discussion at the end of a lesson, and typically involves groups of two (e.g. turn-to-your-partner discussions). These groups are often temporary and can change from lesson to lesson (very much unlike formal learning where 2 students may be lab partners throughout the entire semester contributing to one another’s knowledge of science). Discussions typically have four components that include formulating a response to questions asked by the educator, sharing responses to the questions asked with a partner, listening to a partner’s responses to the same question, and creating a new well-developed answer. This type of learning enables the student to process, consolidate, and retain more information learned.

3. **Group Investigation (GI)**: Students are required to gather data, interpret the data through discussion, and synthesize individual contributions into a group project. Group Investigation promotes higher-order thinking skills and is effective for high school classrooms (Brown and Ciuffetelli Parker, 2009). Sharan and Sharan (1992) have developed this method as Co-operative Learning. Group Investigation is one of the rare Cooperative learning methods that gives considerable freedom to students. Students have the latitude to decide
on the composition of their teams assign their role and responsibilities, establish and clear the norms and their desired behaviours and set their goals. They form their own favourable two-to-six member groups to work cooperatively for conducting their group projects, and thereby achieving their shared goals. Group Investigation involves cooperative learning, group inquiry, emphasizing data gathering by students, interpretation of information through group discussion, and synthesis of individual contributions into a group project. Another distinguishing characteristic of the method is its attempt to eliminate competition among students. At the class level, as in most Cooperative learning methods, the instructor is expected to introduce the method and its basic principles shed light on the objective of the course, explain the scoring system and help the students form their teams in the first session. Like any other method of cooperative learning, the class presentation can be lecture or any other kind of demonstration like be of plays and brainstorming techniques supported by a slide, a video or an internet show. The four critical components of this method are ‘investigation’, ‘interaction’, ‘interpretation’, and ‘intrinsic motivation’. That is first team get together and investigate into topics from a wide range of topics which are to be covered during a term and select their favorite topics. Then individual teams plans and decide what to seek for in the topic, how to go about it and how to divide to work between them in order to carry out the group research or task. During the course, they collaborate in activities like analyzing evaluating the data they gather several sources. They discuss their work in progress and exchange ideas and information in order to expand, each individual finishes his or her task, the group pools the findings and tries to reach a
consensus to produce a group report, demonstration, play or exhibition. In the final session, each group makes a presentation or display to share its findings with the entire class. The belief is that collection achievement of shared goals beings with it a kind of intrinsic motivation. Self evaluation, peer assessment and teacher evaluation are utilized in this method to supply appropriate feedback for students further development. For example, while a group presents its report, other groups have the opportunity to evaluate the clarity and professional quality of the presentation through observation and posting questions with reference to their areas of concern and interest. The final evaluation of groups is based on the quality of their performance during the semester, which strongly aims at developing positive interdependence among group members.

4. **Students Team Achievement Divisions (STAD):** Students Team Achievement Divisions (STAD) is one of the popular method cooperative learning, which was developed by Slavin (1978). In four-member heterogeneous learning teams, mixed by performance level, gender, and ethnicity, students work together to make sure that each team member has learned a lesson presented by the teacher. The cycle of activities that constitutes STAD (Slavin, 1995) begins with a teacher presentation and then involves a period of group study, in which students work to make sure that they and their teammates have mastered the content. The lesson concludes with quizzes on the material covered by that lesson. Students take the quizzes individually, without helping one another. Quizzes are scored, and each student is awarded points based on having met or exceeded his or her previous score. Team scores represent the sum of the members’ points. Teams earn certificates or other awards by meeting
preestablished criteria. STAD, a cycle of activities that takes three to five class periods, has been used in second grade through college classrooms, and in a wide range of subjects, including social studies. It is best suited to teaching well-defined objectives, and material for which there will be a single right answer. In the social studies, it could be used as a strategy to teach map skills, geography, events in history, or economic and government principles. In contract to some methods of CL like Group investigation for example, which is purely student-centered, STAD pays more attention to the present and the role of the teacher. Therefore, it is likely to attract those teachers who do not like to consider students contribution to making important curriculum-related decisions such as goals setting, group formation and role assignment. This method includes five major phases:

1. Teacher Presentation
2. Team Study
3. Individual Quizzes
4. Determining improvement points and
5. Team recognition

After the teacher presents the lesson his or her favoured techniques and strategies, heterogeneous teams of two dyads work together to attain there leaning goals. They work together to complete the worksheets, which are distributed by the teacher after his presentation. First, they work in pairs on one shared worksheet and they have their work with the other pair of team. By virtue of the positive interdependence STAD brings among teams members through applying different strategies like its grading system, students feel the need of helping their team mates. After the team study is completed, the teacher asks students to take a test individually in order to assess their understanding of the material. Shortly thereafter, students correct their own performances on quizzes based on the keys supplied by the teacher. This opportunity provides students with an immediate feedback and helps them to better recognize their problems and reconstruct their related knowledge.
The investigator for the present study uses one of the Co-operative learning model that is Students Team Achievement Divisions (STAD).

1.6 IMPLEMENTING THE ELEMENTS OF COOPERATIVE LEARNING

There are a variety of techniques that can be used to promote one or more of the elements of effective cooperative learning groups. Cooperative Learning has many limitations that could cause the process to be more complicated then first perceived. Sharan (2010) discussed the issue regarding the constant evolution of cooperative learning is discussed as a threat. Due to the fact that cooperative learning is constantly changing, there is the possibility that teachers may become confused and lack complete understanding of the method (Sharan, 2010). Teachers implementing cooperative learning may also be challenged with resistance and hostility from students who believe that they are being held back by their slower teammates or by students who are less confident and feel that they are being ignored or demeaned by their team (Sharan, 2010).

The three most popular are those of David Johnson and Roger Johnson (Johnson et al., 1994), Robert Slavin (1994, 1995), and Shlomo Sharan and Yael Sharan (Sharan, 1995; Sharan and Sharan, 1994). To give a general sense of what cooperative learning is like and to avoid limiting to any one individual's approach, the following discussion is a synthesis of the main features of each approach.

1. **Group Heterogeneity**: The size of cooperative-learning groups is relatively small and as heterogeneous as circumstances allow. The recommended size is usually four to five students. At the very least, groups should contain both males and females and students of
different ability levels. If possible, different ethnic backgrounds and social classes should be represented as well.

2. **Group Goals/Positive Interdependence:** A specific goal, such as a grade or a certificate of recognition, is identified for the group to attain. Students are told that they will have to support one another because the group goal can be achieved only if each member learns the material being taught (in the case of a task that culminates in an exam) or makes a specific contribution to the group's effort (in the case of a task that culminates in a presentation or a project).

3. **Promotive Interaction:** This element is made necessary by the existence of positive interdependence. Students are shown how to help each other overcome problems and complete whatever task has been assigned. This may involve episodes of peer tutoring, temporary assistance, exchanges of information and material, challenging of each other's reasoning, feedback, and encouragement to keep one another highly motivated.

4. **Individual Accountability:** This feature stipulates that each member of a group has to make a significant contribution to achieving the group's goal. This may be satisfied by achieving a minimal score on a test, having the group's test score be the sum or average of each student's quiz scores, or having each member be responsible for a particular part of a project (such as doing the research and writing for a particular part of a history report).

5. **Interpersonal Skills:** Positive interdependence and promotive interaction are not likely to occur if students do not know how to make the most of their face-to-face interactions. And one can safely assume that the interpersonal skills most students possess are probably not highly developed. As a result, they have to be taught
such basic skills as leadership, decision making, trust building, clear communication, and conflict management. The conflict that arises over differences of opinion, for example, can be constructive if it is used as a stimulus to search for more information or to rethink one's conclusions. But it can destroy group cohesion and productivity if it results in students stubbornly clinging to a position or referring to each other as "stubborn," "dumb," or "nerdy."

6. **Equal Opportunities for Success:** Because cooperative groups are heterogeneous with respect to ability and their success depends on positive interdependence, promotive interaction, and individual accountability, it is important that steps be taken to ensure that all students have an opportunity to contribute to their team. One can do this by awarding points for degree of improvement over previous test scores, having students compete against comparable members of other teams in a game- or tournament-like atmosphere, or giving students learning assignments (such as social science problems) that are geared to their current level of skill.

7. **Team Competition:** This may seem to be an odd entry in a list of cooperative-learning components, especially in light of the comments we made earlier about the ineffectiveness of competition as a spur to motivation. But we're not being contradictory. The main problem with competition is that it is rarely used appropriately. When competition occurs between well-matched competitors, is done in the absence of a norm-referenced grading system, and is not used too frequently, it can be an effective way to motivate students to cooperate with each other.
Some of the class activities to promote cooperative learning are as follows:

1. **Jigsaw** Students are assigned to five heterogeneous, or home groups. Each group has the same number of people. Each member of the group becomes an expert on a subtopic which they must represent, investigate, or read about. They then meet with their other group members who responsible for the subtopic in other groups. They become a new group to discuss their subtopic and then following discussion they rejoin their original groups and share what they have learned. (Naested et al., 2004).

2. **Group Investigation** Students are required to gather data, interpret the data through discussion, and synthesize individual contributions into a group project. Group Investigation promotes higher-order thinking skills and is effective for high school classrooms (Brown and Ciuffetelli Parker, 2009).

3. **Think-Pair-Share** The instructor poses a question to the class. The students think about the question individually and then they share with a partner. Once they have shared with their partner they then share their thoughts with a small group of 4-6 members (Naested et al., 2004).

4. **Literature Circles** Students are assigned to small, collaborative reading groups, which provide designated roles for each member. Each student assumes a shared responsibility for their learning, which is guided and supported by the teacher (Anderson and Corbett, 2008). Roles include; summarizer, discussion leader, word wizard, and illustrator.

1.7 ADVANTAGES OF COOPERATIVE LEARNING
Research has shown that students who work in cooperative groups do better on tests, especially with regard to reasoning and critical thinking skills than those that do not (Johnson and Johnson, 1989).

In extensive meta-analyses across hundreds of studies, cooperative arrangements were found superior to either competitive or individualistic structures on a variety of outcome measures, generally showing higher achievement, higher-level reasoning, more frequent generation of new ideas and solutions, and greater transfer of what is learned from one situation to another." (Barkley, et al, 2005)

Slavin (1991) reviewed 67 studies, 61% of the cooperative-learning classes achieved significantly higher test scores than the traditional classes. He notes that the difference between the more and less effective cooperative-learning classes was that the effective ones stressed group goals and individual accountability.

Slavin (1996) further argues that "cooperative learning has its greatest effects on student learning when groups are recognized or rewarded based on the individual learning of their group members".

Cooperative learning has also been observed to enhance achievement of female and African American students (Herreid, 1998), members of groups that are underrepresented in various disciplines.

Students in mixed groups (different races, genders, learning styles) tend to have a deeper understanding of the material and remember more than those in homogeneous groups (Wenzel, 2000).

In a study of 2051 students at 23 institutions, Cabreara (1998) found that minority students expressed a greater preference for learning in groups than did majority students." (Barkley, 2005)
In addition to these circumstances, cooperative learning has a number of advantages that are; An emphasis on social interaction and learning motivating factor and Active and responsible role taken by the student to the task and responsibility in work involving a better individual and group performance in both qualitative and quantitative, and so on. Its effectiveness to achieve mastery of social skills such as the media, peer relationship, coping with the difference, and so on., Which translates into the fact that encourages students to learn to accept each other and cooperate, which helps to make them feel members of a group and experience to the group wide range of positive feelings, while increasing their personal safety to feel supported by him.

- The stimulation of various learning, encouraging activity directed towards previously established goals, as demonstrated (Fabra, 1994).
- Facilitate the intellectual and emotional development of students, which can perform various exercises and activities that constitute a solid base upon which experimentation can build their world view and the development of science.
- Improve the climate or atmosphere of the class, reducing stress and anxiety by achieving a relaxed and stimulating atmosphere so both students and teachers can work comfortably and effectively.
- Provides security for teachers, who feels how students gradually are becoming responsible for their learning to understand that when they learn, are not responding to the demands of teaching but their own internalized demand expansion and development.

1.8 COOPERATIVE LEARNING: AN ALTERNATIVE TO TRADITIONAL METHOD
The challenge in education today is to effectively teach students of diverse ability and differing rates of learning. Teachers are expected to teach in a way that enables pupils to learn Geography concepts while acquiring process skills, positive attitudes and values and problem solving skills. A variety of teaching strategies have been advocated for use in Geography classroom, ranging from teacher-centered approach to more students-centered ones. In the last decade, there is a vast amount of research done on cooperative learning in Geography.

Cooperative learning is grounded in the belief that learning is most effective when students are actively involved in sharing ideas and work cooperatively to complete academic tasks. Cooperative learning has been used as both an instructional method and as a learning tool at various levels of education and in various subject areas. Essentially, then, cooperative learning, represents a shift in educational paradigm from teacher-centered approach to a more student-centered learning in small group. It creates excellent opportunities for students to engage in problem solving with the help of their group members (Effandi, 2005).

1.9 COOPERATIVE LEARNING IN GEOGRAPHY

The popularity of cooperative learning methods in social studies classrooms is due, at least in part, to their effects on the social development of students. In addition to strengthening and expanding students’ grasp of the formal curriculum, they impact affective outcomes inherent to social studies –outcomes beyond curriculum mastery. These include empathy toward other peoples, in other cultures (and eras), ideas of citizenship, and critical thinking.

Although cooperative learning is a powerful tool with which to accomplish academic, social, and affective goals, it takes more than
simply allowing children to work together in groups, an activity to which the cooperative learning label is often misguidedly affixed. More than twenty-five years of experimental research in schools indicates that outcomes, particularly achievement outcomes, are affected by how teachers structure and implement cooperative learning methods. One can think about effective use of cooperative learning in social studies as being attentive to both the social and the studies.

The teaching methodology serves the contents and the first issue to be discussed is the contents of cooperative learning. Some researchers believe that cooperative learning is suitable for more complicated or higher level epistemic targets and also suitable for learning tasks involving emotions, attitudes, and values (Wang, 2002). However, in our context, a more specific statement is needed to offer a better guideline for geography teaching practice in our middle schools.

It is believed that cooperative learning in geography is suitable for topics involving large-scale conceptualization, and multi-tiered reasoning. With more scale or with more tiers more advantage will be gained from cooperative learning. For examples, “study conditions for Congruent triangles” (Shi, 2009), which requires one to investigate which condition regarding relations among three angles and three lines, need to be satisfied.

Students need to first carefully classify the situations into nine types that respectively include cases with one line, one angle, two lines, two angles, and one line plus one angle. In this example, students learn by team vs. team discussions and students are able to manipulate the learning target by trying to give peer/opposite examples, visualizing
concepts and doing experimental research. This allows research to be conducted in depth.

Cooperative learning in this example shows clearly its advantage for topics involving large-scale conceptualization, and multi-tiered reasoning where the learning process can be made more vividly with colorful spotlights.

- **Independent Thinking:** Capability of solving problems independently should be encouraged in geography cooperative learning. When students solve problem independently, they tend to overwhelmingly rely on their own biased personal experience in order to find the solution while missing or rarely rendezvousing a different perspective on the same issue. It is often seen that even when alternative solutions come across their minds they tend to be overlooked due to the existence of the first solution already in mind. However, in cooperative learning, a team composed of subjects with different Geography knowledge experience, background and thinking patterns will help each other take advantage of the complimentary views of others in the epistemic process, benefiting from multichannel communication and further polishing their capability in problem solving. It is believed that under the circumstances of cooperative learning, thinking independently and cooperative communication intermingle and nurture each other. It is especially important to see the independency of thinking in the processes of students’ representing, listening and discussing. In fact, mentors tend to reserve a certain amount of time for students to be able to think independently prior to communication; however they often overlook students’ independency during discussion. For example, it is often
seen that average students take advantage of achievements made by merit students and they tend to follow them. Merit students usually are those who first propose solutions and therefore the chance of independent thinking for the average students becomes automatically blocked. This compromises the teaching quality largely due to the varying possible gains obtained by these two different types of students. Many reasons account for this:

- It can be due to the contents of overcomplicated problems used in cooperative learning. When the subject is complicated and very abstract, students can be bored, and when tasks involved have a less clear structure, average students are likely to be very anxious about the situation’s uncertainty;
- Skill levels of different students can be heterogeneous and differentiation in terms of students’ knowledge structure and varying tiers in absorbing knowledge will damage the synchronization between different students in terms of the maturity or correctness level of their logical reasoning prior to cooperative discussion. A variety of factors account for weakened independent thinking. Whether or not students are able to keep their thinking independent determines, to a large extent, whether cooperative learning is able to achieve its desired quality. However, it is a challenge to assure that all students, in the same class, with varying skill levels, are able to think independently to meet our satisfaction.

Zhang (2006) believes that cooperation is of three basic types that are respectively comprehensive cooperation, cooperation based on job division, and cooperation enabled by communication. Geography learning that mainly involves mental activities and tasks that need to be
committed depending on an individual’s independent thinking falls into the third category. It is realized that cooperative learning method in a classroom takes the third type – cooperation enabled by communication as the main approach and it is consistent with what is believed by Zhang. In summary, knowledge acquiring or question discussions involving a large scale of complexity and of a multitier nature, are more suitable for cooperative learning method. In cases where students find it difficult to study independently or explore independently based on their AS-IS skill set or epistemic level, it is better to engage in cooperative learning as this will achieve a better result in such a way that sparks from different individuals will help all participants train themselves to think in broadened dimensions, where more thinking approaches can be referred to and can contribute, and a training style that leads to fully interactive units of team intelligence will benefit all students’ capabilities in problem solving.

1.10 EFFECT OF COOPERATIVE LEARNING IN STUDENTS RETENTION

Many students turn out to be very miserable and inattentive in a Geography class after being taught a topic and discover they could not memorize or recall such a concept with ease. The reason for this difficulty may vary but this could sometimes be related to the teaching method being used to explain such topics. Udeinya and Okabiah (1991), blamed poor performance of students in Geography on poor methods and approaches to teaching which has reduced the level of motivation. Harbor-Peters (2001) asserted that the issue of poor performance in Geography examinations was due to problem of teaching methods. There has also been an increasing awareness by those concerned with Geography education that the conventional methods of teaching
Geography, has not been very successful. For effective teaching to take place, the skillful Geography teacher needs to use many different methods and techniques at his disposal. A carefully designed teaching method can make teaching and learning effective (Chianson in Kurumeh and Opala, 2008). One of the many teaching methods proposed by Johnson and Johnson, 1991; Slavin, 1990, that results in positive effect on students’ achievement and retention of information is cooperative learning. Yiwen (1999) defined cooperative learning as a kind of learning strategy in which students study together and complete common goals. Each student contributes his/her own efforts in small groups to promote all students’ performance. In this process, students produce interaction to involve many activities such as communication, observation and support. Mckeachie (1999) explains that, in a cooperative learning class, students often elaborate on the concepts being taught to achieve what is expected. Elaboration provided from one student to another is a win/win situation. Elaboration not only enhances the learning of students who receive the explanation but also deepens the understanding of the student providing the explanation. Hence, consistent elaboration or explanation of a topic would surely bring forth complete retention of a topic being learnt for a longer period of time.

Retention is defined by Kundu and Tutoo (2002) as a preservative factor of the mind. The mind acquires the materials of knowledge through sensation and perception. These acquired materials in the mind need to be preserved in form of images for knowledge to develop. Whenever a stimulating situation occurs, retained images are revived or reproduced to make memorization possible. Hence Geography concepts need to be presented to the learners in a way or method that touches their sub-consciousness which can trigger quick recalling of the concept.
being taught or learnt. Using such a teaching method as cooperative learning, both high ability and low ability learners would be able to collaborate in terms of understanding, explaining and retaining the concept they have learnt in a Geography class.

1.11 STUDENTS ATTITUDE TOWARDS GEOGRAPHY

Attitudes are not inborn traits. The individual develops his own attitude towards the subject geography, upon social learning, his readiness to accept or reject, etc. The formation of attitude takes place gradually. Some of the attitudes may be permanent while some may be temporary. The concept ‘Attitude’ is defined by many psychologists in different ways.

According to Anastasi (1968), “An attitude is often defined as a tendency to react favourably or unfavourably towards a designated class of stimuli, such as national or racial group, a custom or an institution. Thus, defined, attitudes cannot be directly observed but must be inferred from overt behavior, both verbal and non-verbal.”

According to Freeman (1965) – “Attitude is a dispositional readiness to respond to certain situations, persons, objects or ideas in a consistent manner which has been learned and has become one’s typical mode of response”.

Sheriff (1956) sees an individual’s attitude “as a set of categories for evaluating or judging various social stimuli – persons, objects, events, etc. Further that his social attitudes are learned and established through social interaction and that they are a matter of degree, rather than being all or none, positive or negative”.

Thurstone (1946) defines attitude as “the sum total of man’s inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats and convictions about any specific topic”.
Katz (1960) defines attitude as “a predisposition of the individual to evaluate some symbol or object or aspect of his world in a favourable or unfavourable manner.”

Thus loosely defined, an attitude is a predisposition to behave in a particular way towards a given object. Attitudes are not purely cognitive in nature but cognito-motive in nature, i.e., they have two components namely, cognitive and emotional, towards psychological objects – complex or simple. Attitudes are about generalized objects.

An opinion is merely the verbal expression of an attitude. Attitude refers to an orientation towards a psychological object whereas value implies an orientation toward a series of a class of related objects. Thus a value is often a collection of attitudes.

Wilson (1992) maintained that before “progressive education” came on the scene, the more school failures were caused by the arithmetic than by any other subject. Although the number of failures in arithmetic and Geography may have decreased somewhat in the past fifty years, it is debatable whether modern curricula have fostered more positive attitudes toward the subject.

If there is a true issue in research on attitude, as evidenced by published, contested points of view (Aiken, 1970), it is this most basic of issues: Are geography attitudes important? The generally low correlation between attitude and achievement is the most often cited evidence that attitudes may not matter too much in explaining achievement. There are high achievers in geography who do not have high scores on geography attitude tests.

The attitude – achievement relationship for special groups is a rich area for producing further knowledge. The recent interest in sex differences provides an example of the usefulness in studying carefully a factor that may have many complex influenced on both attitude and
achievement once again, it would appear to the most helpful to study the relationship between geography attitudes and achievement for different groups in addition to simply comparing group attitude and achievement means.

It seems paradoxical that research findings indicate that the attitude achievement relationship is not as strong as common sense might expect, at least where a correlation measure is used. When confronted with the paradox in research, classroom teachers are usually quick to point out that most attitude tests measure attitude toward geography itself rather than toward the class or the teacher. It is perfectly reasonable for a subject to have a poor attitude toward geography but to enjoy the class because the teacher is good or the class is interesting or any number of other reasons. Unless this state of affairs is repeated year after year, it is unlikely that the subject’s attitude will change. However, in that particular class the subject’s achievement may be much higher than might be predicted by his or her general geography attitude, producing a low correlation between attitude and achievement.

Students have good attitudes, when they perceive Geography as useful and interesting and when they have had good teachers (Callahan 1971). Students develop poor attitudes when they do not do well or find Geography uninteresting (Selkirk, 1975).

As mentioned above that the relationship between the attitudes and achievement is certainly the consequence of a reciprocal influence.

The relationship of attitudes, which are integrally related to expectations, to performance appears to be especially important in Geography learning.

One study by Brown and Abell (1965) clearly demonstrated that the correlation between pupil attitude toward a subject and achievement in
that subject was higher for arithmetic than for spelling, reading or language. Unfortunately these studies are not always consistent in their findings although they generally report low to moderate correlations between the variables.

In addition, one investigator called Neale (1969) has argued that patience, compliance and obedience are more important than attitudes as determinants of achievement in Geography.

For the past two decades research workers have tried to identify factors that influence achievement and attitudes. Large-scale surveys on this area indicate only small and somewhat inconsistent influences (Bridge, Judd and Neook, 1979).

Geography is a science which examines the natural, One of the variants affecting success in education is earth by founding relations. Geography is a branch of the attitude of the students towards the subject, school, science which examines the shape of earth, the amyls teacher and similar items. Related literature shows that affect that shapes and the relationship between human, the term “attitude” has so many definitions. Attitudes are consists the alive life on earth, bio and animal community tendencies that cannot be observed themselves but and nature and their distribution. As it is seen, supposed to lead some observable behavioral tendencies geography has the feature of being a science. Attitude is a psychological structure seen as an examining the relationship of human and nature, important predictor of an individual’s behaviours with examining what human do and will be able to do as cognitive, audible and behavioral dimensions. Attitude is learned tendency that force and Geography is among the most significant lessons that individual exhibit particular behaviours towards particular students need to learn. But a number of students are people, objects and
occasions. It seems difficult to form teaching experiences students are irrelevant to geography lessons, they avoid and provide desired behaviour changes in and from geography and be unsuccessful in the lesson.

1.12 SOCIOECONOMIC STATUS (SES)

The behaviour and scholastic progress of students are influenced by some cognitive and non-cognitive factors. A good number of studies have been conducted to identify various non-cognitive factors relevant to behaviour and scholastic progress of students, as it was observed that non-cognitive factors played an important non-cognitive factor affecting the behaviour, abilities and achievements of students. The term SES means the position that an individual and is family occupies by means of education, income, material and cultural possessions and participation in social activity.

1.13 COOPERATIVE LEARNING AND ACADEMIC ACHIEVEMENT

In order to teach effectively, the teachers must have sufficient knowledge about the students, in addition to the knowledge about the subject and appropriate methods of teaching. Modern researchers indicate that if proper and suitable methods and techniques are used, even the students of less intelligence can easily learn. Modern researchers indicate four models of instruction that can lead to high student achievement. These include Direct Instruction, Cooperative
Learning, Mastery Learning and Project-Based Instruction. (Sadker and Sadker, 1997).

Cooperation is working together to accomplish shared goals within cooperative situation, Individuals seek outcomes that are beneficial to themselves and to all other group members. Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each others learning (Johnson, Johnson & Holubec, 1998). The terms group learning and cooperative learning are often used as if they mean the same thing. In fact, group work means several students working together and working together does not necessarily involve corporation. Cooperative learning is an arrangement in which students work in mixed ability groups and are rewarded on the basis of the success of the group as a whole (Woolfolk, 2001).

Cooperative learning activities are carefully structured learning activities in which students are held accountable for their contribution, participation and learning. Students are also provided incentives to work as team in teaching others and learning from others (Slavin, 2000). Though cooperative learning model is attracting worldwide attention of researchers in education, very few studies could be found in the previous research literature relating to the subject of social studies especially in Pakistan. The researcher could trace only one study conducted by Hawkins et al (1998) who found cooperative learning to be effective for teaching Social Studies to 8th class. This gap in knowledge about usefulness or otherwise of this model of teaching needed to be bridged up by further research at different levels of education.
1.14 NEED AND SIGNIFICANCE OF THE STUDY

Cooperative learning, which is hailed as the “most important and most successful teaching method reform in the last decade” (Ellis and Fouts, 1997) and as one of the teaching methods that the new curriculum reform advocates, is increasingly winning favor in primary and secondary schools. While cooperative learning theory is better understood and relevant research contents are further enriched, the focus of the domestic researcher shifts from theoretical introduction of international state-of-the-art in this area to a further step of exploratory study by applying this theory to its local context and practice, while emphasis is increasingly drawn on its influence on subject construction (Liu, 2009). “Full-time compulsory education Geography curriculum standards (trial version),” highlights: “students should be encouraged to discover the unknown independently and be willing to cooperate”. Educational value varies depending on different subjects, therefore answers to questions such as, how to understand the cooperative learning in Geography classroom, and what subject is suitable for cooperative learning in Geography, deserved to be investigated due to their value in reality.

Apart from achievement and problem solving, students should also be inculcated with attitudes and values that are appropriate to their life as a student. Nor Azizah et al. (1996), in their study involving 966 pupils and using STAD and Jigsaw II structures, found that cooperative learning can inculcate values such as independent, love and cleanliness. Similar study done by Siti Rahaya (1998) using STAD/Jigsaw as a model which involved 1180 students from 18 schools, concluded that the values of self dependent, rational, love and hard working are prominently
inculcated. It was also found that cooperative learning can enhance scientific skills, promote enquiry learning and increase science achievement. The students were found to enjoy learning in groups. According to Nor Azizah and Chong (2000), the result of the two studies varies due to differences in school background and type of students in the respective school.

The present study is very useful in many dimensions. The study helps the Geography teachers to know the effective teaching method to teach Geography. It helps the classroom Geography teachers to undertake remedial measures to improve his teaching and to solve student’s problems in Geography.

The research focuses on essentiality of teacher training to make them capable to handle new models of teaching Geography instead of conventional methods.

The cooperative learning model of teaching specifically indicates the type of learning activities to be provided at every phase of its syntax. Here the plans proactively and is more concerned with his/her teaching effectiveness and therefore is perceived to be more concerned with teacher accountability.

The objective of secondary school is the development of cognitive competencies, knowledge, abilities, skills and beliefs in students. This objective can be attained to a larger extent by adopting suitable models like MLM and direct construction . both these models have been widely researched on aboard. In India two MLM has been studied to some extent (Singh -1983, Yadav 1984, Patadia 1987, Francina 1995).
Geography subject is necessary for competitive examinations, as well as our daily life. To make the students capable to face competitive examinations and our daily life, Geography tests and learning on the basis of exercises oriented teaching model like cooperative learning model is essential.

The present study helps to break the monotony in the classroom by making teaching more interesting through situational teaching and performing interaction. It provides good amount of knowledge to syllabus setters to introduce appropriate geography syllabus with exercises. The study provides an essential knowledge to administrators to organize refresher courses and trainings to make the teachers capable of handling models of teaching instead of conventional teaching methods. Cooperative learning gives practical experimental knowledge. It finds out the students’ achievement attitude, aptitude towards geography and provide the knowledge.

1.15 STATEMENT OF THE PROBLEM

Students today are challenged with the ever-changing demands of a global market place. Infused within the changing nature, comes the responsibility of educators to prepare students to be life-long learners, as well as, independent and critical thinkers. Currently, students in the India are lagging behind other countries in geography and with the age of accountability, teachers also need to increase students’ test scores. Educators are faced with preparing children to become successful members of society while also increasing student achievement along the way. Students will use geography throughout their daily lives; therefore, it is important that they understand the skills and concepts being
taught. It is the responsibility of teachers to maximize student interest in order to develop positive learners and increase geographical achievement. Educators need to implement methods within their geography classrooms that not only increase test scores, but also encourage students to become self-motivated learners.

The primary goal for this study is to help limit the amount of remedial practice that is used to teach geography by helping increase the level of understanding through the use of social interaction and cooperative learning.

Hence the study entitled as “EFFECT OF CO-OPERATIVE LEARNING MODEL ON THE IX STANDARD STUDENTS ACHIEVEMENT AND THEIR ATTITUDE TOWARDS GEOGRAPHY”

1.16 OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

1. To study the significant difference between experimental and control groups with respect to pre test, post test and gain of pre and post test achievement in Geography of IX standard students.
2. To study the significant difference between boys and girls of IX standard with respect to pre test, post test and gain of pre and post test achievement in Geography in experimental group
3. To study the significant difference between boys and girls of IX standard with respect to pre test, post test and gain of pre and post test achievement in Geography in control group
4. To study the significant difference between levels of ability (Below average, average and above average) with respect to pre test, post
test and their gain of achievement in Geography scores of IX standard students in experimental group.

5. To study the significant difference between levels of ability (Below average, average and above average) with respect to pre test, post test and their gain of achievement in Geography scores of IX standard students in control group.

6. To study the significant difference between experimental and control groups with respect to attitude scores towards Geography of IX standard students.

7. To study the significant difference between experimental and control groups with respect to attitude scores towards Geography of IX standard boys

8. To study the significant difference between experimental and control groups with respect to attitude scores towards Geography of IX standard girls

9. To study the significant difference between boys and girls of IX standard with respect to their attitude scores towards Geography as a whole

10. To study the significant difference between boys and girls of IX standard with respect to their attitude scores towards Geography in experimental group

11. To study the significant difference between boys and girls of IX standard with respect to their attitude scores towards Geography in control group

12. To study the significant difference between levels of ability (Below average, average and above average) with respect to attitude scores towards Geography of IX standard students in experimental group
13. To study the significant difference between levels of ability (Below average, average and above average) with respect to attitude scores towards Geography of IX standard students in control group.

14. To study the significant difference between levels of ability (Below average, average and above average) with respect to attitude scores towards Geography of IX standard girls in experimental group.

15. To study the significant difference between levels of ability (Below average, average and above average) with respect to attitude scores towards Geography of IX standard boys in experimental group.

16. To study the significant difference between levels of ability (Below average, average and above average) with respect to attitude scores towards Geography of IX standard girls in control group.

17. To study the significant difference between levels of ability (Below average, average and above average) with respect to attitude scores towards Geography of IX standard boys in control group.

18. To study the significant difference between pre and post test scores of achievement in Geography of IX standard students in experimental and control groups.

19. To study the significant difference between pre and post test scores of achievement in Geography of IX standard boys and girls as a whole.

20. To study the significant difference between pre and post test scores of achievement in Geography of IX standard boys and girls in experimental group.
21. To study the significant difference between pre and post test scores of achievement in Geography of IX standard boys and girls in control group.

22. To study the significant difference between pre and post test of achievement in Geography scores of IX standard students in three levels of ability as a whole.

23. To study the significant difference between pre and post test of achievement in Geography scores of IX standard students in three levels of ability in experimental group.

24. To study the significant difference between pre and post test of achievement in Geography scores of IX standard students in three levels of ability in control group.

25. To study the significant interaction effect of methods of teaching (cooperative learning and conventional) and levels of ability (below average, average and above average) on achievement in Geography of IX standard students.

26. To study the significant interaction effect of methods of teaching (cooperative learning and conventional) and levels of ability (below average, average and above average) on attitude towards Geography of IX standard students.

27. To study the significant interaction effect of gender (boys, girls), methods of teaching (cooperative learning and conventional) and levels of ability (below average, average and above average) on achievement in Geography of IX standard students.

28. To study the significant interaction effect of gender (boys, girls), methods of teaching (cooperative learning and conventional) and levels of ability (below average, average and above average) on attitude towards Geography of IX standard students.
1.17 LIMITATIONS OF THE STUDY

1. The study was limited to IX std students
2. The study was limited to evaluate the effect of co-operative learning model on IX std students compared to conventional methods of teaching.
3. The study was limited to the capacity of learning basic Geography. The Socio Economic Status test was developed to measure social status has content validity only.
4. The Attitude test developed was used to measure the ability has content validity only.

1.18 OVERALL VIEW OF THE STUDY

This chapter deals with a brief introduction of the role of geography, importance of geography in education, cooperative learning, implementing the elements of cooperative learning, advantages of cooperative learning, cooperative learning: an alternative to traditional method, cooperative learning in geography, effect of cooperative learning in students achievement, attitude towards geography. It also deals with the need for the study, statement of the problem, objectives of the study and limitations included in the study.

In Chapter II, a brief review of related literature is presented, which helped the researcher to design the present study.

In Chapter III, the methodology adopted for the present study is discussed. This chapter includes scope for the study, design of the study,
variables used for the study, operational definitions of the terms used, hypotheses, tools used for the study, sampling design, data collection procedures, statistical analysis used for data.

Chapter IV deals with the analysis, presentation and interpretation of the data in tabular and graphical form. Chapter V presents a brief summary of the study. It also presents findings from the study, overall conclusions in relation to the variables and suggestions for further research along with educational implications of the study.

Bibliography and Appendices are presented at the end.
The succeeding chapter deals with the previous studies.