CHAPTER - I

INTRODUCTION
## CHAPTER - I

INTRODUCTION

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1.0 Present Study:

The present study is entitled "Effectiveness of Activity Based Instructional Programme in Developing Selected Map Skills and Understandings in Geography".

An exhaustive review of the related literature and studies by the investigator revealed the following drawbacks of classroom transactions especially in Indian context in the teaching of Social Studies in general and Geography in particular. They are i) inadequate acquisition of map skills by the students; ii) greater stress on rote learning and memorization; iii) teacher centred teaching; iv) dull and boring teaching-learning process; and v) inadequate teacher support materials.

Realising the importance of the objective of acquisition of map skills and development of understandings in Geography, which has been neglected and keeping in mind the lack of availability of teaching learning material to achieve the above objective, the study was taken up. It was intended in the study to develop an Instructional Programme and validate the same in relation to Conventional approach to the teaching of Geography in class VIII.
The Instructional Programme consisted of two parts - Part 'A' and Part 'B'. Part 'A' was intended to develop map skills among the students and was 'self-instructional' in nature as there is no separate time schedule in the syllabus for developing map skills directly. Part 'B' was intended to develop understandings among the students and the programme is in the form of 'teacher support material' intending to provide academic support to the Geography teachers of class VIII.

The Instructional Programme was tried out experimentally employing 'pre-test post-test parallel group design'. The study also attempted to find the attitude of the students of the Experimental Group towards the Instructional Programme.

The present chapter is intended to build rationale for the study leading to specifying the problem for research as well as objectives.

1.1. Geography and its Content:

Geography is as old as the origin of human being on the earth. From the beginning of the existence of human beings, people had to think about environment, food and shelter. In the olden days travellers and conquerors were inspired to know about the earth, its shape and size, people and their
relation with the universe. They prepared the maps of their routes and places visited or conquered. Geography has sometimes been called 'the mother of sciences', since many fields of learning that started with observations of the actual face of the earth turned to the study of specific purposes wherever they might be located (Hartshorne, 1959).

According to Bernhardus Varenius (Varma et al., 1988) Geography deals with process and phenomena which are purely physical in nature and they also deal with social and cultural phenomena. In course of time Geography came to be considered as a science of human beings on the earth studying the action, inter-action and interrelation between the people and nature. While the environment influences the life of human beings, they do take active part in the modification of the environment. This function of Geography strengthens the statement of Fairgieve that the function of Geography is to train future citizens to imagine accurately the conditions of the world stage and to help them to think about political and social problems (Varma et al., 1988).

Geography on the one hand deals with the natural settings in which people live i.e., the topography of the earth, soil, rocks, minerals, climate, land and waterbodies, plant and animal life etc. On the other hand, it deals with
the people's occupation, religion, art, science, music, literature, types of communities, means of transport and other elements resulting from people's effort to utilize the materials of the physical environment. These two sets of elements are interrelated and the interpretation of this relationship gives distinctive character to the study of Geography.

Geography thus brings one into contact with the action of living persons. It brings within its field of study every form of human occupation and every effort directed to harness nature for the progress and development of human beings.

Geography is a dynamic content which surveys and analyses the relationship of man to the environment both physically and socially. To Ahluwalia (1969), it logically builds that body of knowledge which enables people to study the impact of the forces of the nature on man and how man has utilized them in order to develop areas and regions with independent characteristics.

This subject bridges Arts and Science. It allows for a disciplined flight of imagination in order to create interesting details which have a scientific basis. The knowledge of Geography is to be derived from life. Hence,
its comprehension is based upon observation and a close study of relationships which exist between men and materials.

1.2. Importance of the Study of Geography as a School Subject:

Education is one of the basic needs of human beings and also a human right. It is the education which determines the levels of prosperity and welfare of the people. It is through education that a country can solve many of its problems. One of the main purposes of education is to help the learner to adjust to the environment. In this respect it becomes necessary for the child to know what, how and why of its environment and interrelationship between people and the environment.

Human beings, being a part and parcel of the environment—physical and social—it is necessary that they know some aspects of the environment in which they live. The knowing of this vast environment which is both immediate and distant cannot be easily caught but need to be taught. As teaching is the main function of the school, it has taken the responsibility of helping the learner to understand the environment. It is here that the importance of teaching Geography can be realised.
Geography teaching at school level provides a great scope and opportunity to develop scientific attitude, skills and values among the learners. Geography being a study of spatial relationships focusses on the distribution of resources and their interrelationship.

The purposes of Geography in the present context is mainly to inform the learner of the distribution pattern of phenomenon on the surface of the earth and to develop some basic reasoning related to distribution.

To Srivastava, et al., (1990) Geography teaching at the school level is mainly descriptive accounts of how human beings live in the variety of environments found in the world.

The knowledge of Geography is of immense value for solving many of the problems and planning the economy of the country. The study of Geography broadens the mental outlook of the students and enables them to offer a critical attitude towards world problems. In addition to this, the study also contributes to the regeneration of the resources and development of their country by knowing about the natural resources not only of their country but also the neighbouring countries.
Fairgrieve has laid down two principles which have made the knowledge of Geography important and pertinent (Suvarna, 1993). They are as follows:

i) It is through Geography we are able to know about the conditions of different countries and its people.

ii) It is Geography which helps us to know the economic needs of the people.

It is in this context that the study of Geography helps an individual to familiarize himself/herself with the natural surrounding and the mutual interaction between natural, social and economic phenomena. This helps in reducing exploitation of natural resources and making the optimum use of available resources.

To Fairgrieve (1926) the real value of Geography lies in the fact that it helps man to live; it helps man to place himself in the world, to learn his true position and what are his duties. By a study of Geography one is enabled to understand facts, without a knowledge of which it is impossible to do one's duty as a citizen. He further states "we cannot have education worth the claim without Geography".
To Scarfe (1951) Geography teaching helps to equip children for life - to provide specific knowledge to teach certain skills and to develop certain attitudes.

Geography as a school subject is a way of regarding knowledge in an integrated way. According to Long et al., (1966) this integrating function is vital to Geography.

Geography does help its students to gain a perspective of the world. A student of Geography acquires broader understanding of people's role on the face of the earth and a more generous attitude towards people themselves. The enrichment of Geographic knowledge and the widening of Geographic horizons can surely make students and teachers alike, more interesting people and more understanding citizens of their country and the world. According to Morris (1968), "If our children are to understand the world in which they live, Geography is surely a fundamental strand in this understanding".

Children of today are deeply concerned with the future, Geography teaches them to predict the phenomena on the basis of past and present.

According to Bruner (1966), the single most characteristic about human beings is that they learn.
Learning is so deeply ingrained in man that it is almost involuntary. So there is a need to conceptualize on their will to learn, so that Geographic knowledge becomes a part of every individual's knowledge. The winning of Geographic knowledge becomes primary to any overview of attitudes and objectives related specifically to Geography.

The study of Geography does present a unique perspective regarding the significance of position on the planet earth and this perspective is basic to general education. In other words acquisition of Geographical knowledge is fundamental to the general education of every citizen.

School Geography is rich in opportunities. This provides for active pupil participation and teaches them to think. Habits of clean thinking develop through Geography teaching at school level (Garnett, 1960).

Thus, Geography is considered as one of the important subjects at the school level. It helps students to observe the environment around them, interrelate the various phenomena, find cause and effect relationship through their active participation and finally result in becoming responsible citizens.
1.3 Objectives of Teaching Geography:

Geography as a school subject determines the relationship of resources and human activity. To a Geography teacher the aims and objectives of teaching Geography is of foremost importance as it is this which influences the organisation of the curriculum and the teaching approach. Therefore the objectives of teaching Geography need to be specified.

Objectives are of two types - general and specific. The general objectives depend on the overall content of the subject while the specific objectives are behavioural outcomes which need to be achieved within a short term depending on specific content of the subject.

Some of the objectives of teaching Geography as quoted in the study by Suvarna (1993) are,

- to develop an understanding of man and environment and their interrelationship at the global level.
- to develop an appreciation of the interdependence of different regions of the world.
- to develop an understanding and concern about the growing world population and its impact on the environment.
- to understand the need and importance for the conservation of resources.

- to develop an understanding that the economic development of a region depends on several factors such as resources, level of scientific and technological advancement and the needs and aspirations of the people.

- to develop the skill to read, understand and analyse geographical information and data presented in various forms such as photographs, maps, graphs, diagrams and charts.

In the light of the above general objectives it is possible to formulate certain instructional objectives in Geography at school level. Some of them are described by Srivastava et al., (1990) as given below.

The pupil:

- acquires knowledge of facts, events, terms, concepts, principles, generalisations, hypothesis, trends, symbols, tools, techniques, processes etc., concerning Geography.

- understands terms, concepts, principles, generalisations, trends, symbols, processes etc.
- applies the acquired knowledge and its understanding to unfamiliar situations.

- acquires skills related to the study of Geography.

- develops interests related to Geography.

- develops positive attitude towards people and environment.

All these objectives cover the areas of knowledge, understanding, application, skills, interest and attitude.

The central objective of Geography as a school subject is to develop a knowledge and understanding of Geography and to build a working knowledge of its basic methodology. It also aims at helping the learner to acquire understanding of the essential Geographic skills like searching out appropriate data, observation and map reading. The other objectives include helping the learner to predict the phenomena, develop positive attitude towards the physical and cultural world and offer opportunity for aesthetic experience. Srivastava’s study (1969) revealed that it is possible to develop certain democratic understandings, attitudes and abilities through the teaching of Geography. In addition, it also tries to foster critical faculties and develop habits of disciplined thinking.
Thus the main goals of teaching Geography at any school level would include development of certain understandings and acquisition of certain information processing skills as well as map skills. The need for developing these objectives are presented below.

1.4. Need for Developing Understandings in Geography:

'Knowledge is Power'. To have real power in the sense of the maxim, one must know besides facts themselves, the relationships which link them together; and one must know where and how to use them. When one sets the development of understanding as a major goal, one is emphasizing the need for children to know and deal with a vast amount of information. Knowledge which indicates power is not only the knowing of information but it also includes understanding (Henry, 1946).

Learning with understanding is always economical and also relatively permanent. It helps in cumulative learning with functional value. To Bruner (1963), the fundamental concepts and relationships constitute the structure of any subject. Understanding those concepts and relationships make the knowledge more comprehensible, aids memory and promotes transfer of learning.
Understanding is required to be an accompaniment of all learning. But the understanding which is developed at school will vary in kind and in richness like any other forms of desirable learning. The more essential the need for learning, the greater is the need for understanding. As learning becomes meaningful, being built on a sufficient background of experience, understanding will come to be an actual outcome of education.

According to Mayer (1989), understanding is students' ability to creatively use presented information to solve transfer problems. To solve those problems, meaningful learning has to take place. Meaningful learning requires that students attend to relevant information, build internal connections among pieces of information and build external connections between the information and relevant existing knowledge through processing the information.

Understandings are basic to rich and effective learning. This necessitates teaching and measuring of understanding. Yet, inspite of their demonstrable values understandings have been neglected in school and they still are too often neglected in favour of other learning outcomes -verbalism, barren factual information and mechanical skills (Henry, 1946).
The school is concerned with ideas, attitudes and skills which influence actual living conditions both present and future. As a result of this, it is but natural that increasing attention be given to learning which is accompanied with understanding —learning which functions.

Like any other subject taught at school, the major aim of teaching Geography should also be the development of understanding.

All the above mentioned advantages of developing understandings in any school subject invariably includes even Geography which is also a school subject. So there is a great need to develop understandings in Geography which results in meaningful learning through information processing.

1.5. Need for Developing Understanding of Maps:

Anderson et al., (1946) has identified three broad goals related to development of understandings in Social Studies. One of the objectives which contribute to the goal of acquiring functional information is 'understanding maps'. Recommending map as an important teaching learning aid Mackenzie (1988) said "A map is a tool of the geographer and
therefore no lesson in Geography can be called complete without the use of map".

A map summarizes the Geographical aspects of a lesson which saves labour and time in giving a detailed description. In addition to this more Geographical items can be depicted in a map instead of volumes of speech or writing. More than that when wall maps are hung in a class, the attention of the students can easily be focussed making teaching effective and interesting.

When maps used in a classroom they facilitates communication. According to Yadav et al., (1975) there is a need to provide opportunities to students to perceive through more than one sensory medium and in concrete and abstract forms. Maps being visual in form, help in concretising learning.

Maps, to be used meaningfully, one should be able to read, interrelate and interpret maps. But, they are the most difficult of the various visual materials to be understood. This is because maps have their own language mainly in the form of abstract symbols. As a result these symbols used in a map do not elicit immediate behavioural response from the students unless some form of recognition and understanding occurs.
According to Robinson et al., (1983) well developed interpretative abilities depend upon the capacity to evoke images of shapes and spatial relationships. At the school level this could be achieved by using maps.

Discussing further the use of maps, Ahluwalia (1969) described that a map helps to reduce the scale of areas and distances and thus brings the abstract concept of size, distance and direction into the region of reality. He advocated that before understanding the physio-social environments, their mutual interactions and relationships, a student must know how to read maps.

Expressing the need to know 'how to read maps' Long et al., (1966) observed, though 'Atlas' - a book of maps - most commonly found in school Geography, is considered to be the most important source of information in Geography; it is difficult to read Atlas.

If the student knows to read maps, he/she can generally grasp the information hidden in the maps, compare two or more maps, interrelate them, draw inferences and even transform the verbal content into visual. This will strengthen learning.

Map reading helps the student to know about different parts of the world on his/her own through maps. It provides
description of a given region in terms of climate, physical features, resources and so on. Even in one's daily life, map reading helps, for example to search a structure in a locality, to navigate, to find a hide-out or to trace the route as a soldier or a police person.

Thus map reading is required not only in the study of Geography but also in our real life situations.

As map reading is not inborn, it needs to be taught. Teaching, being an important function of the school, map reading should also be taught through developing various map skills.

As stated earlier, it is difficult to read maps because of its own language termed 'map vocabulary' by Merritt (1962). Because reading of maps involves acquisition and developing of certain abilities among children which come mainly by instruction and practice, these are the skills which help in better performance of the students in reading and understanding maps. As they are intellectual skills and not inborn. This necessitates to know the role of map skills in understanding maps.
1.6. Role of Map Skills in Understanding Maps:

One of the general objectives of teaching Geography is to develop the skill to read, understand and analyse geographical information presented in the form of map.

Olson and Bruner (1976), suggest that educators must be concerned with acquisition of both knowledge and skills, for without skills children cannot easily acquire knowledge nor can they educate themselves. This view is true even with Geography wherein the students should be equipped with skills related to reading of maps, drawing of maps and marking on the maps which can be clustered into 'Map Skills'.

Once the map skills are acquired mainly by direct instruction, students will develop, according to Tulippe (1965) the ability to use maps that unlocks the door to location of the whole world. The greater the acquisition of map skills, greater is the understanding of maps.

Map skills help students to master 'map language' - ability to know different signs, symbols, colours etc., used on a map. Sequential development of map skills, according to Gerber et al. (1984) develop facility in the use of maps but the lack of understanding of maps as found out by Bartz (1965), pose perceptual problems.
If map skills like - colours, direction, symbol, scale, distance, legend, distribution, inference, location etc., are once learnt by the children, maps become an important and interesting source of information. Students observe the map, gather information, interrelate them, draw inferences - generalize, explain and predict and read for themselves basic facts of the world. Thus the acquisition of map skills lead to processing of information which results in understanding of maps.

For example, indicating 'direction' on a map helps to know the location of a region. Skill of 'map scale' results in finding size and distances of different places. 'Legend' helps in knowing the meaning of colours and symbols used on a map. While the skill of 'distribution' provides knowledge about the spread of various resources of the world, the skill of 'inference' results in generalizing, explaining, predicting the information acquired. All these contribute to understanding of maps which strengthen Geography learning.

Thus, the acquisition of map skills plays an important role in understanding maps. These skills become essential when they help in using maps as a basic tool in studying Geography.
Therefore the ability to understand maps must be cultivated as it is not an inborn skill according to Gerber et al., (1984). Thus if a teacher wants students to learn map skills, the advocates of direct instruction claim that such skills should be taught directly as observed by Rosenshine (1987). So there is a need to examine how far schools contribute to the development of map skills and understandings in Social Studies in general and Geography in particular. The present-status regarding this, is discussed in the following caption.

1.7. Present Status:

An analysis of the present status of teaching learning of Social Studies in general and Geography in particular, reveals the existing condition of the classroom process in terms of the achievement of students.

Gupta's (1983) critical study of the Social Studies curriculum with special reference to secondary stage in Himachal Pradesh revealed that it did not provide for a spirit of inquiry, flexibility, interaction between people and environment. Even Ingole (1985) has drawn attention to inadequacies of Social Studies curriculum. Hence there is a
need for planning and experimentation in Social Studies curriculum.

The extent to which the objectives of teaching Social Studies in general, and Geography, in particular, are achieved depend not only on the syllabus prescribed but also on how well it is transacted in the classrooms. This, further depends upon the extent of availability and use of teaching learning materials both for the students and teachers as well as various teaching learning strategies employed by the teacher.

The present status of Geography class in terms of the above two significant variables are detailed below:

1.7.1. Status of Availability and Effective Utilization of Teaching Learning Materials in Geography:

The various teaching learning materials that could be used in Social Studies class in general and Geography in particular include various teaching aids and audio visual materials, text books as well as teacher guides/hand-books and other support materials. The available literature related to the present status of availability and use of the above types of materials are briefly reviewed below.
1) Teaching Aids and Audio Visual Materials:

The various teaching aids and audio visual materials that could be used in the Social Studies class in general and Geography class in particular include maps, globes, charts, atlas, films, slides, filmstrips, models including field trips and text books. The effectiveness as well as judicial use of these are mentioned in any standard book on methodology of teaching Social Studies. Thus the various teaching learning materials are used in Social Studies and Geography classroom with an intention that they would make classroom teaching effective.

Teaching aids are essential and useful in developing the clear concepts of the subject and stimulating learning (Golani, 1988).

Henderson (1969) expresses that the best use is made of aids when they are chosen and applied in the light of our knowledge of their proven educational value in a particular learning context in which they are used.

Patel's (1984) study on the present position of teaching history in secondary schools of Gujarat State revealed that most of the schools were poorly equipped with teaching aids.
The situation does not seem to have improved even after two years and remains to be same irrespective of the region.

According to Muthappan's (1986) study of the history curriculum in schools in Tamilnadu since independence, the teaching aids like films, film strips, and slides were not available to a large percentage of teachers. Such aids even when available, were not being utilized.

Further, examining the utilization of available teaching aids in present position of teaching history in secondary schools of Solapur district, Ingole (1985), found that teachers mainly used graphics as their teaching aid and other aids were used very rarely.

The above findings related to Social Studies and History teaching in terms of availability and use of teaching aids seem to be applicable even to Geography teaching.

Jani's (1987) study on the present position of teaching Geography in secondary schools in Gujarat revealed that teaching aids facilities in 52% percent of the schools especially for Geography were not satisfactory.

The above position of teaching aids were observed by Lulla et al., (1966) in their study on investigation into academic causes of backwardness in Social Studies at the
elementary stage even three decades ago. According to them the teaching aids were either not available at all or were scarcely used.

Thus, the above observations and findings indicate that, there is inadequacy of teaching aids generally in most of the schools for teaching Social Studies including Geography; some schools do not use them or scarcely use them despite of their availability. This status of availability and use of teaching aids in general, needs to be improved.

There have been studies examining the status of availability, use and effectiveness of some of the basic teaching learning aids like maps and text books, which are expected to be used in all the schools while teaching Social Studies including Geography. The following are some of the observations.

ii) Map as a Teaching Learning Material:

According to Long et al., (1966), the studies related to reading of 'Atlas' - a book of maps - has been surprisingly of very little attention inspite of the fact that they are the most important source of information in Geography.

The above observation needs to be admitted after going through the study of Bartz (1965) on perceptual problems in
understanding maps. The study revealed that a high proportion of students experienced difficulty in using 'scale', 'directions' and 'symbols'. 'Symbols' he found, were perceived by students but were not fully understood and therefore not used appropriately in map reading and interpretation.

A similar study taken up by Young (1952) on children's comprehension of school atlas, almost one and a half decades ago, prior to study by Bartz (1965) found that the 'scale of distance' and 'direction' were not fully realised among the students even at the age of 13 plus. Though all could recognise the use of 'layer shading', only a few could interpret its meaning.

The above finding of Young (1952) and Bartz (1965) appears to prevail even in the eighties. A study was conducted by Government Central Pedagogical Institute (1981) on the errors committed by the examinees of Class X in response to questions related to the maps of India in Uttar Pradesh. It examined 50 Geography answer books. The study found that more than 60% of the students failed to draw the map correctly; 72% of the students marked the countries wrongly; 75% of the students failed to indicate lake, cities and rivers correctly.
When one ponders over the above findings on the extent of map learning among the students, there is a need to examine how far maps are being used in the classroom by the teachers.

Raina (1995) had conducted a study on the use of Instructional Materials in the classrooms. Although the study was on History teachers, it reflected to some extent how far the maps were used by the teachers. The study revealed that only 43% of the teachers used maps frequently and 17% percent of the teachers used them occasionally.

The studies above clearly indicate that - studies related to 'how to read maps' have been regarded as of very little importance; most of the teachers use maps occasionally; usage of scale, direction, colours and symbols are not fully understood by the students; majority of the students fail to indicate 'distribution' on a map.

The status of use and effectiveness of maps in the classroom as observed above could be for two reasons.

a) Non availability of different types of maps.  
b) Ignorance of teachers as to how it should be used.

Normally maps are available to the students and teachers in the textbook. Maps available in the textbooks are far
too uninspiring, due to the minute print, which most of the times beyond the possibilities of recognition defeating the very purpose of their existence and instructional objectives. Then, to what extent are they useful in achieving the instructional objectives?

iii) Textbook as a Teaching Learning Material:

The content of curricular transaction is generally determined by what is presented in the text book. The main, and many times the only source of information available to most of the teachers and the students is the text book. But how far do the textbooks contribute to effective teaching and learning? This, of course, depends on their quality.

Khan's (1959) study on teaching of practical Geography at the high school stage which consisted of a sample of twenty five high schools revealed the observation of teachers. Teachers opined that the textbooks did not have systematic graded exercises for teaching practical Geography.

In the light of the National Policy of Education 1986, Agnihotri (1989) took up a critical analysis of the Social Studies textbooks published by Madhya Pradesh Textbook Corporation, Bhopal. The study aimed at analysing the Social Studies textbooks of class VI, VII and VIII in relation to
content, organisation, procedure, testing procedure, physical aspects, and illustrations. His study revealed that as far as organizational part of the books were concerned, they were appropriate, up-to-date and free from errors. But with the lapse of time, according to him, recent information had to be incorporated. Two of the above findings seem to be contradicting wherein he found that the textbooks were up-to-date, but he also found that recent information had to be incorporated. He, however, pointed out that the illustration part in the textbook was very poor.

The above status related to the textbook in Social Studies in general give hints about the inadequacies of the textbooks from the point of view of updated information, quality of illustrations and availability of systematic graded exercises which can develop skills needed to learn Geography.

Thus the above studies indicate or suggest the need for improving not only the quality of textbooks in terms of content and structure, but also from the point of view of their utility for both students and teachers especially from the point of view of achieving desired pupil outcomes.

The above studies do not suggest specifically about the quality of Geography textbooks prescribed for class VIII in
schools that follow the syllabus prepared by National Council of Educational Research and Training (NCERT). Since this has relevance for the present study, it was necessary for the investigator to examine the Geography textbook prescribed for class VIII authored by Gupta and Sinha (1993).

The following are the observations made by the investigator.

iv) Observations on the Geography Textbook of Class VIII:

A detailed study of the existing Geography textbook of class VIII namely, Lands and Peoples - Part III, published by NCERT was undertaken by the investigator to find out how far it reflects the qualities of a good textbook from the academic point of view. The observations made regarding the content coverage, use of diagrams, provision for activities, types of evaluation items, adequacy of map work, correctness of information etc., are given below:

a) Content Coverage: The textbook has a detailed content of lithosphere and India and to some extent on Asia. This wide range of content provides opportunities for teachers and students to know about lithosphere and Asia including India.
b) Relevance of Map Usage: Maps should always help learners to visualize the Geographical content. Though a number of maps are used in the textbook, they seem to have not been utilized fully. Adequate activities are not suggested based on the observation from the maps. A map becomes more meaningful when the students are given activities to observe, list, classify, compare and infer from the maps. But, such variety of activities are hardly provided in the content of the textbook. Added to this, are the errors in the map which increase the difficulty in understanding the abstract concepts instead of concentrating them.

Example: In the lesson 'The Land of Monsoon' there should have been two different maps - one indicating the direction of Summer Monsoon Wind and the other indicating the direction of Winter Monsoon Wind. But in the textbook instead of printing two different maps, only one map i.e., direction of Winter Monsoon Wind is printed twice. But the question given for observation on one of these maps is related to observation on direction of Summer Monsoon Wind.

The above observation indicates that the content of a textbook is not supplemented by relevant map and even the activity provided is too minimal for observing the direction
of the wind even though there are some more opportunities for providing activities based on the given map.

c) Types of map work: In the exercise section of the textbook, adequate opportunities are given for marking distribution on the maps.

Example: In the chapter on 'The Face of Our Motherland' there is a question - On the map of India show the highest range of Himalayas.

Such exercises strengthen the map skill of 'distribution' among the students.

Though there are activities for marking on the map, there is not even one activity in the exercise section on map reading and drawing inferences from the map.

d) Use of diagrams: There are a few diagrams in the textbook.

But these diagrams are not used adequately as suggested activities to the learners to be performed, are not given.

There is, of course, a set a graphs indicating the temperature and rainfall of the important cities of India. This graph is followed by a set of questions which give scope for observation, classification and comparison. Except for this other diagrams do not provide for adequate activities.
e) Exercises: Exercises that are given at the end of each chapter are quite lengthy. They consist of different types of questions - short answer type, distinguishing between, fill in the blanks, matching types, map work, topics for class discussion, etc. But some of the questions just test the information and do not go beyond that.

Example: Name some important vegetation belts of India.

This question looks to be quite vague. How does a child make out which area is an important vegetation belt? What are the criteria for their importance? How many of them are to be named?

There are a few questions which test the Mathematical ability of the child and not Geographical understanding.

Example: Into how many seasons will you divide a year to explain the climate of India?

This indicates that though the exercises are satisfactory in terms of quantity they need to be improved qualitatively and made more objective-based.

f) Topics for discussion: There are many interesting topics given for class discussion at the end of every chapter.
Example: 'What is more important - the quality or quantity of population?'

Such topics direct the students to gather extensive information and participate in the teacher-guided discussion.

The above observation indicate both positive and negative aspects of the Geography text book from academic point of view. It implies that the existing textbook need to be revised. But to do this there are certain constraints. Then, the alternative is to provide a supplementary material to the teachers that rises above these constraints, by providing material to replenish the lacunae that occur in teaching/learning process.

v) Other Teacher Support Materials:

Effective teaching and learning depends not only on the textbooks and teaching and learning materials but also on the way it is used and the access to the source of additional information. This necessitates the need for other teacher support materials like Teacher's Guide, Teacher's Handbooks, Source Books, Reference Materials, etc. Normally these materials help teachers in smoother classroom transaction. But are there adequate materials produced in this regard? A few attempts were made by NCERT in preparing teachers guides
and teaching units. Although they were produced, they were not easily available to most of the Social Studies teachers. Now that, they have little relevance with the change in syllabus, is there adequate support materials to the teachers especially to develop map skills and understandings in Geography among the students?

Paranjpe (1995) observed lack of academic support to the teachers in the study on identification of factors affecting the achievement of children in Tanda Schools.

The above observations and findings on the teaching learning materials especially curriculum, textbooks and other teacher support materials, speak about their quality or adequacy. They are, the curriculum is inadequate; the figures are not adequate; maps in the textbook are not effectively used; exercise questions lack quality; maps and illustrations are of poor quality, and teacher support materials are not adequate. These focus on the need for an alternate material that is free from above mentioned defects to help both the teachers and students towards achieving instructional objectives. However, other than the availability and effectiveness of teaching learning materials, another important variable which influences the classroom interaction is the teaching strategy. What is the
present status of teaching strategies in Social Studies in general and in Geography in particular?

1.7.2. Teaching - Learning Strategies:

Teaching standards of the schools are falling down; that teachers do not know how to teach; that they have failed to create interest in the subjects and that they do not motivate the students to learn, observe Buch et al., (1970). Such observations or comments are relevant even today, indicating that no change or very little change has taken place in the classroom teaching. One of the contributing factors to this is the effectiveness of teaching strategies followed by the teachers.

Schools were successful mainly in developing the ability to recite words or to perform skills. According to Henry (1946), learning was too often superficial and artificial. The learning was merely learning of words. He further observed that in Social Studies, emphasis was placed too exclusively upon learning and reciting facts of History, Geography and Civic Government - the names and locations of cities, rivers, facts of chronology, duties and powers of governmental agencies and the like. Cause and effect relationships were seldom pointed out except in neat summaries which could be memorized.
The studies by Patel (1984), Patil (1985) and Jani (1987) revealed that most of the History or Geography teachers used teacher-centred methods which were boring to students. The students were passive listeners answering a few questions here and there.

According to Patel’s (1984) study, on the present position of teaching History in the secondary schools of Gujarat, teacher centred methods like lecture, story telling and questioning were used almost by many teachers.

However, with regard to Geography teaching as per Patil’s (1985) study on the present position and problems of teaching in Solapur district, the condition was even more worse wherein majority of the teachers inspite of being aware of recent ‘techniques’, followed traditional methods such as lecture or question and answer method.

The above status of Geography classroom did not improve much even after two years as per Jani’s (1987) study on the present position of teaching Geography in secondary schools in Gujarat. The study revealed that 77 percent of the teachers were teaching Geography through the lecture method without using any teaching aid.
A study conducted by Buch, et al., (1970) on the patterns of male Social Studies teachers in Baroda revealed that the teaching learning process was dominated by teacher talk of 82.65 percent, with pupil talk of 10.48 percent and silence, confusion or pauses for 7.38 percent. This implies that the pupil participation in the above class was generally very poor. In other words, the teachers employed teacher-centred method of teaching, as the time spent on teacher talk was eight times greater than the time spent on pupil talk.

How far are the above strategies effective in a Geography class? This was revealed in a study by GCPI (1963) which investigated into students understanding of some common terms of Geography in class VIII. The study brought to light that 84 percent of the students scored less than 24 percent of marks. This is an indicator of poor achievement of students' understandings in Geography.

From the above studies some of the inferences that could be made about the present status of classroom transaction in terms of teaching learning materials and teaching strategies as well as their effect on pupil achievement are as follows:

- Objectives of Geography teaching in terms of developing skills to understand and analyse information presented in
the form of maps is not achieved to a satisfactory level, which in turn is likely to lead to lack of development of understandings in Geography.

- The availability of teaching learning aids is inadequate.

- The available teaching aids are occasionally used, especially maps.

- The classroom environment is poor in terms of the use of teaching learning materials, activities, the extent of pupil participation and the effective method of teaching.

- Illustrations and exercises given in the textbook lack quality. (Everything has quality - some more, others less)

- Adequate teacher support materials are not available for a Geography teacher to teach Geography effectively.

The above inferences made the investigator to think on the following lines.

- What teaching learning activities are to be developed to strengthen map learning among the students?

- How to strengthen the use of maps in a Geography class so as to improve the achievement levels of understandings in
In general, how to improve the classroom environment in a Geography class in terms of effective teaching learning strategies (that are activity based) which promote greater pupil participation, leading to the development of desired understandings and skills in Geography, especially in high schools?

These questions throw light on the need for the present study, which was felt necessary to 'foster critical faculties and habits of disciplined thinking' (Pemberton, 1967).

1.8. Need for the Study:

While examining the present status of Geography teaching it is very well observed that there are lapses in the textbook (Khan, 1959; Agnihotri, 1989); methods of teaching are either stereotyped or outdated (Nizamuddin, 1958; Ahluwalia, 1969; UNICEF, 1996); Geography has been a dry subject with teacher domination (Buch et al., 1970; Patel, 1984; Patil, 1985; Jani, 1987); there is also lack of adequate teaching learning aids (Ingole, 1985; Muthappan, 1986; Jani, 1987) and teacher-support materials (Paranjape, 1995).

As discussed earlier understandings (Henry, 1946) need to be developed in Geography for effective learning. As
understandings require processing of information, they are relatively permanent, making "knowledge more comprehensible" (Burner, 1963). Understanding in other words is acquiring functional information. One of the objectives of acquiring functional information is 'understanding maps'.

Maps play an important role in developing understandings in Geography, being a basic source of information. But, to make use of the map as a tool, one needs to develop the skill to read and/or draw marks on maps - which is acquired by knowledge and practice normally under the guidance of a teacher.

A number of map skills have been identified by many researchers like Merritt (1962), Wilson (1980), Gerber et al., (1984). The details are given in chapter IV. They also include a few map skills identified by Young (1952) and Bartz (1965), which pose perceptual problems to the students in understanding them, as described in the earlier captions.

Tulippe (1965) made a promising claim that Geography teaches essential skills mainly those concerned with maps. Ability to use an Atlas - a book of maps - unlocks the door to locations over the whole world. The more detailed the training, and the greater the map understandings, the more can
the pupil can read for himself/herself the basic facts of the world locational knowledge needed in everyday life.

There are studies which describe the status of map learning. But a thorough review of all the researches in Social Science Education documented in the five surveys of Educational Research by Raina (1997) revealed that the questions which need to be raised and answered to provide an empirical base to curriculum development in Social Sciences which is presently lacking are as follows:

- What are the skills involved in the reading and drawing maps?
- How should they be ordered and taught?
- What geographical concepts need to be formed?
- How are they to be graded for the purpose of curriculum?

Since, using maps is considered to be a difficult task, it is suggested in the review of literature given in earlier captions and even in Chapter II and Chapter IV, that map skills need to be developed mainly by direct teaching as it is not an inborn skill and sequential development of map skills develop facility in the use of maps as implied in the studies of Young (1952); Brown (1960); Merritt (1962); Garnett (1960); Long et al., (1966); Macnee (1962); Tulippe
In this context, the investigator in the study made an attempt to identify the various map skills, select the ones that are needed to use the maps given in class VIII Geography textbook and prepare an Instructional Programme which is content fair, to develop those map skills among the students of class VIII. Therefore, it is felt that there is a need to help students to read maps being an important source of information.

Although the development of map skills imply more generalized behaviour in the use of maps, not specific to any Geography content, they are not to be acquired for their own sake. They should facilitate the acquisition of understandings in Geography. This implies the students also need to be trained in the use of these map skills in developing understandings related to any specific content area in Geography.

The contextual use of map skills facilitates not only the development of map skills themselves but also in developing understandings in Geography wherein the map skills have helped. Thus after adequately developing the map skills among the students of class VIII, the Instructional Programme
prepared by the investigator also intended to develop understandings in Geography among the students of class VIII by synchronizing adequately the use of map skills acquired by them.

Keeping this background in mind, the need was felt by the investigator to prepare an Instructional Programme to deliberately develop selected map skills among the students of class VIII.

Therefore the study intended to prepare an 'Instructional Programme' that would develop both map skills and 'understandings' in Geography among class VIII students reflecting a 'warm, welcoming and encouraging approach ....... child-centred and activity based process of learning ..... skills organized through practice' as expected by the National Policy on Education (1986). Further, it also proposed to validate the Instructional Programme in terms of its effectiveness in developing map skills and understandings and to compare its effectiveness with the conventional approach to teaching Geography. Further, finding the attitude of the students towards the alternate approach to teaching Geography. Below are given the title of the study and the objectives of the study.
1.9 Title of the Study:

The study is entitled,

"EFFECTIVENESS OF ACTIVITY BASED INSTRUCTIONAL PROGRAMME
IN DEVELOPING SELECTED MAP SKILLS AND
UNDERSTANDINGS IN GEOGRAPHY".

1.10. Objectives of the Study:

The following are the objectives of the study:

1) To prepare an activity based Instructional Programme to
   develop selected map skills and understandings in certain
   chapters in Geography among class VIII students.

2) To study the effectiveness of teaching through the above
   Instructional Programme in terms of developing map skills
   and understandings among class VIII students in Geography
   and in terms of attitude of the students towards the
   Instructional Programme.

3) To compare the effectiveness of teaching through the above
   Instructional Programme and teaching through Conventional
   approach in terms of achievement of the selected map
   skills and understandings in Geography among class VIII
   students.
1.11. Explanation of Key Terms:

Activity Based Instructional Programme: It refers to the Instructional Programme consisting of both teacher activity and student activities developed in the study in order to develop map skills and understandings in Geography among class VIII students of the experimental group.

Development of Map Skills: It refers to the achievement of map skills measured in terms of scores obtained in the test on map skills prepared by the investigator.

Development of Understandings: It refers to the achievement of understandings on the Geography content, measured in terms of scores obtained on the test on understandings in Geography prepared by the investigator.

Effectiveness: It refers to mean gains in the scores from the pre-test to the post-test of the Experimental Group and the mean difference between post-test scores of the two treatment groups on the tests used to measure acquisition of map skills and understandings in Geography prepared by the investigator.

1.12. Delimitations of the Study:

Social Studies is a school subject which consists of three main components - History, Geography and Civics with
separate textbook for each one of them from class VI to class VIII as per the syllabus prepared by the National Council of Educational Research and Training, New Delhi. As each of the above components is normally taught separately, the present study is limited to Geography only, as it provides ample opportunities for strengthening the map skills.

There were five schools which followed the above syllabus in Mysore city. But Demonstration School was the only school in Mysore city which had two sections in each of the classes during the time of the study, whereas rest of the schools had only one section in each class. Since the experimental validation of the Instructional Programme was to be conducted employing 'pretest post-test parallel group design' only such schools which had two parallel sections could be selected so as to reduce the experimental errors due to difference in the school context for the two treatment groups. Thus it was inevitable to choose only the Demonstration School in the Mysore City for the purpose of the experiment.

The study is limited to the students of class VIII only as the syllabus includes the content area namely 'Our country - India', which provides ample opportunities for the
development of map skills and understandings selected for the study.

Though a number of map skills have been identified by authors, the study is delimited only to the acquisition of six map skills from the points of view of the Geography content of class VIII chosen for the study as well as the availability of time for conducting the experiment without disturbing much transactional hours available for teaching Geography.

The study is delimited to the variables chosen in the study which were considered significant for the purposes of the study for the reasons mentioned under Chapter III caption 3.2.2. The measurement of these variables are also delimited to the measures obtained using various tools used in the study mentioned in Chapter III caption 3.3.