C H A P T E R - III

TEACHING TECHNIQUES IN GEOGRAPHY

3.1 INTRODUCTION

Every one has been exposed to teaching. Most people believe that they know what is meant by the term teaching. Teaching is a comman and complex occurance. It is extremely important for each person to study carefully what is involved in the teaching task when it successfully promotes learning.

Teaching is a process of arranging conditions under which the learner changes his ways consciously in the direction of his own goal. In this process of arranging conditions for learning, the first and most effective teacher is the learner himself. In education every learner is his own teacher. Therefore to have a real teaching the learner must know what is going on. He must know that the learning and teaching process is directed towards his own goals.

To teach is to help some^ones and learning. Teaching is rooted in learning. The two can never be seperated in the actual educational process. Teaching is causing to learn. Nothing has been taught until it has been learnt. Teaching establishes a harmonious relationship between teacher, pupil and subject. The heart of teaching is communication and good teaching is good communication. Effective teaching is dependent on succe^ssful teacher-pupil intercommunication.

Teaching is an art. It has certain principles. It involves skills in guiding and learning. Teaching consists primarily of guiding and directing the people. It encourages them towards

efforts in learning. This guidance is done by suggessions rather by command and by the creation of situation. It naturally leads to desired types of activity. Good teaching opens fields of investigation. It introduces new materials. It suggests methods of procedure and it aids individual to estimate the progress.

Good teaching requires kindness and sympathetic view. It can not take place in a situation that lacks kindness and sympathy. The good teacher knows that his pupil need his sympathy and help. He attempts to create an atmosphere which seem home like and pleasent. He suggests activities, aims, materials, and modes of response. He creates democratic environment in which rights of the individuals are respected. He stimulates the students through teaching, through suggessions of new activities, though criticism and direct suggessions. He takes in to account the past experiences of the students and proposes any new activity by considering the interests, attitudes, skill and habits of them. Good teaching is concerned with the progress of pupils in the achievement of attitudes. Interests, ideas, information, skills, abilites and the development of habits of thought and action. It leads towards desirable social goals. It also makes progress in methods and techniques of accomplyshing the social goals of education.

3.2 NATURE OF GEOGRAPHY TEACHING

The importance of geography in every day life is felt and the teaching of the geography in schools and colleges of

today is becoming more and more important. In a 'changing world' the ideas of teaching geography are changing 'what to teach'? and 'How to teach the what'? are questions which a geography teacher should constantly put to himself. The teacher must first consider the important point of the difference between real learning and apparent learning in geography. He should see to the proper guidence and discovery in learning geography by the pupils. The chief aim of the teacher in teaching geography is to make his pupils 'Think geographically'. He should adopt proper methods of teaching geography and improving the methods adopted by him. He should handle the new techniques in teaching the subject. Hence the geography teacher must have good grip over a subject matter he teaches. He must feel that he has delivered the goods alright. He must have succeed in making his pupils understand rightly the facts he has wanted them to understand. He should made new approaches in making his pupils, think geographically in developing the right type of geographical concept in the minds of the pupils. He should also develop the feelings of 'National Integration', International understanding and 'tolerence' towards other peoples in his pupils during his teaching subject.

Today the world is changing. In this changing world our ideas of teaching geography are also changing. When we say the world is changing, we mean that the human geography of the world is changing and so our ideas of teaching geography will have to change with changing human geography from the old format 'capes and bays' method of teaching geography. When the asking of

questions was permitted only to the teachers and never to the taught, the idea of teaching the subject have been changing through well over half a century.

A study of methods of teaching geography is important of teaching Geography. It should not be thrust by an out side authority on a teacher, It should not be theoretic and impracticable. Any method which is successful in reaching the objective is a good method. In this method the teacher must first consider the difference between 'Real learning' and apparant learning. Apparant learning is mere reproduction of words the pupils have learnt without understanding the concepts behind those words. Real learning is exhibited when the pupil cannot only repeat words, but has a clear mental image of what the words stand for : so the methods used must ensure real learning rather than apparent or mere word learning.

During the process of discovering a geographical concept the pupils have to think their way through the concept and this we call 'think geographically' on the part of the pupils. Such kind of thinking in geography leads to a greater understanding and longer retention of the concept learnt than happens when direct instruction and explaination takes place. In the learning process the pupils must be made to think 'Inductively' as well as 'Deductively. Both types of thinking will have to inevitably go hand in hand. In inductive or deductive thinking or both the teacher will have to guide the reasoning of his pupils. In his method the teacher should not be very strict or tight in seeing

that the pupils make no mistakes in their 'geographical reasoning' but may allow them to make some mistakes and then by pointing out the mistakes to them realise where they have gone wrong in their reasoning. By allowing the pupils to make the mistakes in the first place is a means of focussing attention on that point of issue and of helping conceptual development. That is why such techniques as getting students to copy from text books or black board or dictating notes to them are not highly esteemed as teaching methods.

In general, the methods which a teacher uses must be in harmony with the ends or objectives which he is striving to reach. Thus there is no point in putting forward the aim that pupils should acheive independent and critical thought if the teaching methods used imply teaching by authority. Pupils thinking will never be scientific if all knowledge is taught as though it were revealed truth.

The chief problem faced by the teacher in his teaching is the difference in mental ability exhibited by his pupils. In his teaching the teacher will have to tackle pupils whose formal reasoning powers seem to develop slowly. But these 'less able' pupils with their limited powers of formal reasoning will be more inclined to learn certain skills such as those associated with map drawing etc. They seem to take more pride in 'doing something' for which there is short concrete result than in 'knowing something' for which there is no apparent immediate utility. It may be possible to get such pupils, once they are emotionally involved in performing a skill successfully, to discuss some of the implications of their work and therefore gradually lead them to reason logically.

3.3 TEACHING TECHNIQUES

Teaching techniques in geography may be simply divided into two groups. Those which rely on the pupils observing directly what can be seen, and those which rely on the pupils observing from second hand material. Ideally it would be best if students could be taught geography mainly by references of concrete examples. But in practice this is not possible, partly because of only small geographical areas would be covered and partly for reasons of college organization. Hence most geography teaching must necessarily rely on second hand material such as maps, globes, pictures, models, films and so on.

Teaching techniques are affected by the ability of students being taught. It is essential to make distinction amongst them. The abler students will appreciate a balanced interpretation of any geography syllabus or scheme of work. They could easily acquire a knowledge of facts about any problem. Abler students will also be willing to make the effort required to assimilate the factual knowledge as may be essential to the comprehension of a problem.

The less able students are less interested in the balaneed approach. They think on the whole, in terms of doing something rather than in terms of 'thinking about something' in an abstract way. Therefore, with those students, the 'skills' aspect of geography is more significant. They will readily draw maps, graphs, produce sketches and models. They have the satisfaction of seeing the result of their labours. Consequently

all practical exercises must aim at teaching the student to think for himself. An exercises which requires no more than the slavish reproduction of a map or model, will not do much to stimulate thought. On the otherhand an exercise set in too abstract terms may have the effect of discouraging students vigorously.

At primary stage geography needs to be mainly descriptive. Children are then able and willing to observe a multitude of phenomena. They may begin recording such facts in a simple way, especially pictorially (e.g.weather observations). They often become keen collectors. This tendency of pupils obviously helpful to geography teacher. He can arrange ordered exhibition of rocks or vegetation or samples of raw materials, with the aid of his students, and increase their interest in the subject. In secondary stage the students scientific thought could be seen. They still interested in descriptive geography but gradually there develops both a need for and an ability to understand explainations of process. The method of approach adopted by the teacher should be mainly inductive. He should present the facts and then attempts to explain them in a simple manner. Third stage is much concerned with the reality of present day. The power of abstract reasoning develops very slowly. Finaly the students intellectualizing process really begins. It is then he begins to appreciate a theory critically, to compare various explanations of a particular phenomena and assess their merits. The degree of understanding of course, may vary from pupil to pupil.

3.3.1 TEACHING TECHNIQUES BASED ON DIRECT OBSERVATION

The technique based on direct observation includes field work. The value of the direct observation method lies in the observation of various facts accurately. It makes critical of sweeping generalisations.

A geographical field work involves three basic steps. The observing what can be seen, recording this on map or in a notebook and interpreting what has been recorded. The study of observation, the facts or objects, should be started so that the student can enable to correlate what he can observe on a ground with what is shown on a large scale map. Since the physical landscape to a large extent, be obscured by the cultural features on it, inevitably it is with aspects of economic and human geography that such out door work is mostly concerned.

For the study of Kolhapur city, the map should be produced giving detailed features, and with the help of teacher survey should be made. The evaluation of the information on the map could be begin with observing a main streets and major features in the city. The observation and survey of buildings of various types can be made. Various shops of different types, offices scattered or concentrated in a place, industrial buildings, community buildings, various stachues in the city, gardens, railway station, bus stations, city bus routes etc. should be surveyed in detail. If the work is carried out gradually, it may be possible to obtain a map of the distribution of industrial, commercial and residential

areas in the city. From this map the teacher may suggest the division of the town into functional zones. He may be able to point out certain zones where industry is dominant, others where commercial buildings are more in evidence and yet others, where administrative or residential buildings are more numerous. The teacher should help to give explaination for this zoning within the city.

Land use survey

Land use survey in a rural area is a means of obtaining a picture of the kind of agriculture practicized in the area and its relationship with geographical conditions. It is very essential to select village for study such that students can walk and survey the village comfartably. The students should travel all over the fields in the village. They should locate each field shown on the map and to mote the use to which the land is put on the outline map given to them. A field which is plaughed in which crops were growing or which was fallow may be mentioned. The crops grown if possible may be noted. Similarly the fields under pasture, wood land, forest, cash crops, food crops etc. noted on respective survey number of fields. For intensive field work, it is essential to make study of a particular holding for further details.

The resulting map will prove valuable not only in traning the students to observe and record facts carefully but also in bringing to light certain geographical relationships. The students should begin to realise the relationship between land use and

relief and soils. It will also show, then, that in reality relief and soil alone do not determine the landuse, that other factors not always in evidence in various cases. When the students get back to their class room and work room, they can not only make a good copy of the landuse map, but they can also write a short account of the geographical factors influencing landuse in the green area. Here it is important to note that teacher should guide them in their interpretation of the landuse pattern and point out the importance of understanding the geographical relationships involved.

Village survey

Village survey may reveal aspects of village life and economy which are not evident to the layman. To survey the village, map showing the roads, footpaths, tracks and the buildings is of utmost importance. An attempt should be made to classify the buildings in the villages as dwelling houses, commercial buildings, industrial buildings etc. The information about the position of the village can be noted as by observing the location of the village on the main road near railway station, as along the water way on the hill or in the valley. The commercial and industrial buildings in the village should be classified. The occupations and number of in habitants should be assessed and information obtained from post office or door to door inquiry, if the village is small. Like this detailed informations of the village should be collected, various maps should be drawn as settlement map, and

and by over all assessment an estimate should be made as to whether the village is a growing or decreasing community. This may be gauzed by whether new buildings are being or have recently been constructed, whether the green gardens etc. are well kept etc.

3.3.2 TEACHING TECHNIQUES BASED ON INDIRECT OBSERVATION

Geographical investigation is essentially based on the scientific attitude to knowledge, observation of the facts and interpretation of these recorded facts. The interpretation may be more an art rather than a science. Many facts can be observed qualitatively distinguished. Therefore geography teaching should not be depended either on qualitative or quantitative approach.

The ordinary lesson is one way of teaching geography. It requires very limited equipments, wall maps and atlases can be used as visual aids. With the deal of these equipments and information obtained from various sources, teacher can take the lesson easily. He should use question answer method, drawing of sketches on chalkboard and put presentation of information before them. Presentation should be such that students can take part in discussion. The skillful question may be helpful to draw conclusion from the facts. The teacher may be able to lead his pupils to find out much information for themselves.

Teaching of geography mostly based on second hand material such as maps, pictures, models etc. when the field work is not possible. The maps, especially the large scale maps provide a useful document on which the students powers of observation can be

brought to bear. The significance of the term large scale varies with the geographical area under consideration. When the large scale maps are used as a means of teaching geography, three steps involved.

1. Understanding of the various conventional signs or symbols used on the map is necessary for the study of the map. The learning process may be preferable outside the class room especially near the features for which symbols stand.
2. The pupils are able to visualize the relief of the map as shown by the contour lines. It is highly doubtful whether they will ever do this if they are never taken out into the region to compare a contour map with hills as they really are. But once they have learned to associate a particular contour pattern with a real physical feature, then all future map reading becomes much easier.
3. The pupil is ready to interpret the information on the map in a way in which shows that she understands the influence of physical features and drainage on the human features and vice versa. At this stage students can make a true geographical synthesis at their own.

The use of photographs and charts have wide importance in teaching geography. A photograph can give reality to a word, a notion or a concept which before was only vaguely understand or even completely misunderstood. Secondly, the visual presentation has a stimulating effect on the pupils and helps to keep them interested. Especially incase of aerial photographs, students can

get clear picture of the terrain in three dimensional form. That means one can see or experience actuality of the natural physical features on a photograph through known instrument, mirror stereoscope. Thus a photograph, picture, or a chart of graph can often be used as the starting point of a lesson of geography, a means of focussing the class's attention. It can be also used dramatically in the middle of a lesson to review flagging interest, or to illustrate a point just made.

There are three main ways of using pictorial material. Firstly, the pictorial material can be used within the text books.

Secondly, the use of pictorial material singly, that means the use of a large photograph or graph which the teacher shows the class at one stage in the lesson to illustrate a particular point. The teacher can always refer to the picture again if necessary during the lesson. It is vitally important that this method be used only if the pictorial material is large enough to be seen by all in the class. A picture whose features can only be seen by half the class leads to a sense of frustation and much movement by those who can not see.

Thirdly we may use pictorial material in group form. A teacher may possess a number of very useful geographical pictures which, because of their size, are unsuitable for display to the class as a whole. In such cases, it may be possible to use them in such a way that students can see them in small groups and study one by one carefully.

The use of projected pictures is of great significance to the teaching of geography. The great advantage of projecting a picture on a screen is that the projected picture is large enough for all the students to see each detail clearly. It avoids most of the difficulties of using ordinary pictures. Projected pictures may be obtained by using an Epidiescope (opaque projector) a film strip and slide project and film projector.

An epidiescope is used for projecting pictures from a book or loose pictures. A filmstrip and slide projector, the most modern filmstrip projectors have an attachment which allows the projection of 2 in X 2 in (50 mm X 50 mm) slides.

In both the above cases the technique of using the picture on the screen for geography teaching purposes is no different from that of using a photograph. The teacher must be careful to select his filmstrip or slides very carefully, so that he knows precisely what he is going to show and what questions he is going to ask. Because projection is an attraction in itself, the temptation of showing more slides should be avoided; so that students can do possibly any careful observation or store facts satisfactorily.

A film projector, the showing of a film is probably, to students, the most attractive form of visual aid. But it is paramount importance that any teacher who intends to use a film for a lesson should be quite familiar with it before hand and should be convinced that it has something valuable to offer the students.

The use of film in a geography lesson is a most potent way of arousing interest and probably the most effective way of showing the actual conditions of life in distant lands. It is upto the teacher to see that a good film is not misused by inadequate preparation.

Most older geography text books gave generalized accounts of regions. Because they were in a sense abstractions from reality, often dull and unimspiring. Many modern text books have avoided dullness by using the sample study approach. According to Mrs.Long and Mr.Roberson, "a sample study is a detailed study of a unit, choosen particularly to show human response to environment, and choosen so as to be typical of the major region concerned". The unit choosen may be a farm, a village, a factory, or whatever is typical and significant in the region under study. There are several advantages in the use of the sample study method. First, the teacher is using an approximation to the 'field study' or direct observation approach.

Secondly, the sample taken is a unit which the pupil can comprehend reality, whereas the region is a much more sophisticated concept. It is easier for the student from an understanding of a small unit in a region to an understanding of the region as a whole, than it is for him to work the other way round.

The use of statistical information, in geography teaching, is utmost importance. This information could be brought from various sources as published statistics, unpublished statistics,

etc. gives much weightage to geography lessons. This information may be obtained in a raw form or processed form, from government publications, private firms and also international organizations. It is necessary for the teacher to bring statistical information uptodate for geography lessons.

Practical work in the class room helps a lot in understanding the problem regarding the lesson, because it involves observing, thinking, writting, counting, drawing maps, sketching, making graphs, labling and so on. The students, with the help of teachers, can also make models, for example, model of relief features, which will help greatly to understand the geographic matter. Hence geography teaching must be provided some practical work. But it is very pertinent to know the ability of understanding of the students, otherwise, an adverse consequenses will be possible but it is suffice to say that the use of practical work, in the class room, for teaching purposes and in stimulating interest in a geographical study is necessary.

Evaluation of teaching is an essential part of the teaching of geography. The teacher could get idea of his teaching effect by assessing the students frequently, either by placing questions orally or giving a short written test and examining it. He could, then, change his method of teaching according to an ability of the students. However, the tests should not be facts memorising, but they should also test the abilities of the student, with the help of equipments like globe, atlases, maps etc. In other words tests should check that not only students factual

knowledge, but also the necessary skills which will enable them to obtain and use factual knowledge.

3.4 TEACHING MATERIAL FOR GEOGRAPHY

Adequate aids, to teach geography, are of great significane. These aids help to understand the subject. There are various types of teaching equipments, which broadly divided into two groups namely the minimum equipments and optimum equipments. A chalkboard, notebooks, text books, wall maps, instruments, specimen collections etc. include in minimum equipment, while opaque projector, projectors, duplicators, telivision, radio include in optimum equipments. The minimum equipments will fulfill the needs, but the optimum equipments strengthen the teaching of geography.

Minimum equipments

Whatever the standard, the chalk board remains the essential item of equipment throughout. Geography can not be studied without diagrams and sketches.

The teacher constantly drawing on the chalkboard will convince students that they themselves should learn to draw. The chalkboard also can make the teacher work very effective. If he uses it in conjuction with the sources of information available to him, he will find his students grasp his lessons more easily.

In geography teaching frequently, use of sketches, diagrams, maps are made to which note books are inevitable to note it. The note books are absolutely necessary to note significant points in a lesson, so that it helps in uhderstanding the concepts, which taught in the class, latter while studying in his house.

It is highly desirable that student should have his own copy of text book prescribed. It ensures his having information and explainations in permanent form. It makes possible for him to do his personal work efficiently and in his own time.

It is highly desirable that each student should have a copy of Atlas suitable for his level. This atlas is a teaching aid. All the maps in it should be clear and without excessive detail. They should be constructed with due regard to teaching requirements (uniform use of conventional signs colours etc.). When the atlases available are connected with a collection of wall maps, this makes the work appreciably easier for the students and they quickly become familiar with the whole range of cartographic conventions. Specialized atlases are outstanding aids to the teacher himself. It can sometimes be used in class. Thus by using good atlases, students acquire not only new knowledge but also the habitat of individual work which is so valuable in education.

A terestrial globe is the only reproduction of the earth in which there is no distortion. On that account it should be

used to show true forms, proportions and distances. The globe is essential for teaching many other things than shapes and distances. It serves to illustrate the oneness of the world.

A wall maps, for teaching purpose, are comprehensible to all students. That means these are simple and easily read. Analytical maps illustrate mainly single aspects of subject. Such as relief maps, climate maps. The synthetic type of map shows more than two aspects such as those showing relief and hydralogy which are so interdependent that they are never mapped seperately.

For proper use, the wall maps must be clear. Colours should be sharp and outlines clear, though all maps are to some extent diagrammatic. There should be a minimum of printed inscriptions. Secondly, the maps must be accurate, large and lend themselves well to teaching devices.

Geography requires various teaching appliances which are useful, often extremely ingenious and also very costly.Apparatus for measuring temperature, atmospheric pressure and precipitation, are necessary, while teaching climatic part of geography.Various models showing evolution of relief (young mountains, old mountains, volcanic relief etc.) illustrating the geographical terms used to describe land formations (hills, mountains, plataue, valleys etc.) models of geographical types and models of typical coastal and marine geographical features; are needed in geography teaching.

Geography teaching enhanced by collecting various specimen, to show the student, while taking lessons. For example, the geography teacher, may use rock and minerals specimen and illustrates the characterstics of rocks and minerals. The teacher, can also collect different sketches, pictures, photographs and make use of it properly.

Optimum equipments

The optimum equipments like opaque projector, projectors, duplicators, cinematograph, television etc. can be used for teaching geography. There is rare chance to retain difficulties in lesson. The teacher can explain facts easily with the help of these equipments.

The opaque projector, with this appliance, it is possible to project the image of a photographic print on paper, a page in an open book, a press cutting or drawing or an opaque body such as a rock. At a moment's notice, in a question period, a practical period or a lesson, the teacher can show single specimens to the whole class and in enlargement. In a word, if an opaque projector is available, it is possible, if necessary, to dispense with all other projectors and also with collections of slides.

Apart from pictures on paper, increasing use is being made of a variety of visual aids. Filmstrips, generally on 35 mm film can be either black and white or coloured could play major

role in this respect. It has many advantages, each series being designed for a particular lesson and produced by a specialist. This facilitates the teachers work in preparation of lessons. Secondly, the use of slides in geography lessons is highly appreciated. Slides are made both in black and white in colour. Cost of production is less than the films as well as the teacher can choose the ones he wants when he is preparing his lesson and shows them at the appropriate moment. The same slide can be put to good use for the purposes of several different lessons.

Stereoscopic pictures are certainly wel-comed by the students of geography. It is possible to get apparent relief by three dimensional effect. It gives appropriate idea of various features, in three dimensional form, with the stereoscope. A teacher will also happily accept the use of stereoscope in teaching geography.

Apart from these equipments, duplicators, the cinematograph which shows informative films, educational films, telivison, radio, taperecorder etc. the modern equipments can be used by the teacher if available.

3.5 REFERENCES

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