

**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**FACULTY EDUCATION**

**COURSE CODE: EDU 764**

**COURSE TITLE: METHODS OF TEACHING GEOGRAPHY**

**EDU 764**

**METHODS OF TEACHING GEOGRAPHY**

**EDU 764**

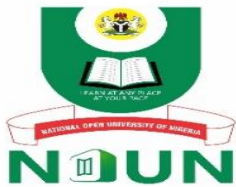
Course Developer

Course Writer

Course Editor

Course Coordinator

Programme Leader



***NATIONAL OPEN UNIVERSITY OF NIGERIA***

**National Open University of Nigeria**

**Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi Abuja**

Lagos Annex: 14/16 Ahmadu Bello Way

Victoria Island, Lagos

E-Mail: [Centralinfo@Nou.Edu.Ng](mailto:Centralinfo@Nou.Edu.Ng)

URL: [Www.Nou.Edu.Ng](http://Www.Nou.Edu.Ng)

National Open University of Nigeria @ 2022

First Printed: 2006

Reprinted: 2013

Reviewed 2022

ISBN: 978-058-687-3

**METHODS OF TEACHING GEOGRAPHY**

Prof. A.K. Usman

Teacher, Geography Department

Ahmadu Bello University

Zaria, Kaduna State, Nigeria

Prof. A.K. Usman

Teacher, Geography Department

Ahmadu Bello University

Zaria, Kaduna State, Nigeria

## **COURSE GUIDE**

### **Introduction**

The course will consist of 7 units divided into 3 modules which give the students basic knowledge of Geography education. The course spreads through areas like Geography education, scope of Geography education, methods and techniques of teaching Geography, among others. Studying Geography is like studying our daily life in the environment (physical and human) because in Geography studies, an individual observe what is in the environment including the physical such as mountains, rivers, cloud, rainfall, vegetation, soils, and so on as well as human including man, schools, hospitals, residential areas, and so on.

### **Course Aims**

The aim of this course can be summarized as follows: to provide an understanding and appreciation of some Geography concepts that enhance understanding of the environment and values in learners so that they can contribute meaningfully to the growth and development of the nation in which they find themselves, and in the educational system in particular.

### **Course Objectives**

To achieve these aims, the course has overall objectives being synthesized from the specific objectives of each unit. After going through this course, you should be able to:

- i. Explain the concept and scope of Geography
- ii. Discuss the methods of teaching Geography
- iii. Describe how to plan and prepare scheme of lessons in Geography
- iv. Describe the various instructional materials used in teaching Geography
- v. Explain the various Technology, Innovation and the use of ICT in Teaching Geography
- vi. Explain the place of co-curricular activities in Teaching/Learning in Geography
- vii. Discuss how evaluation is carried-out in Geography

### **Working through the Course**

The course involves that you must have read the study units, text books and other materials prescribed. Each unit also contain tutor marked assignment questions for which you need to put

great effort in studying them in order to have personal assessment in the course. Assignments and class exercises will be given periodically and they are very important later, the final examination will be conducted after the completion of the course.

### **The Course Material**

The major components of the course are:

- Course outline
- Course guide
- Study units
- Recommended textbooks

### **Study Units**

There are three modules comprising units in this course, they are as follows:

#### **Module 1**

Unit 1 Concepts of Geography

Unit 2 Methods of Teaching Geography

#### **Module 2**

Unit 1 Planning a lesson and preparation of scheme of lessons on Geography

Unit 2 Instructional materials in teaching Geography

Unit 3 Technology and innovation in teaching Geography

#### **Module 3**

Unit 1 Co-curricular activities and Teaching Geography

Unit 2 Evaluation in Geography

### **Text Books**

There are some textbooks you should try and read for your own benefits and expansion of knowledge. Some of them are listed below:

- Bednarz, S. W., Heffron, S. and Huynh, N.T. (2013). A Road Map for 21<sup>st</sup> Century Geography Education: Geography Education Research Washington, DC: Association of American Geographers.
- Biddulph, M., Lambert, D., and Balderstone, D. (2015). Learning to Teach Geography in the Secondary School: A Companion to School Experience. 3<sup>rd</sup> ed. Learning to Teach Subjects in the Secondary School Series. London: Routledge.
- Jones, M. (2017). The Handbook of Secondary Geography. Sheffield, UK: Geographical Association.
- Gersmehl, P. (2014). Teaching Geography. 3d ed. New York: Guilford.
- Butt, G. (2011). Geography, Education, and the Future. London: Continuum.
- Belderstone, D. (2006). Secondary Geography Handbook. Sheffield, UK.
- Biddulph, M., Lambert, D., and D. Balderstone. Learning to Teach Geography in the Secondary School: A Companion to School Experience. 3d ed. Learning to Teach Subjects in the Secondary School Series. London: Routledge, 2015.

## **Assessment**

There are two components of assessment for this course. The tutor marked assignment (TMA) and one at the end of the course which is examination.

### **Tutor Marked Assignment (TMA)**

TMA is the continuous assessment component of the course. It accounts for 30% of the total course. It is desirable if you can write a good assignment to demonstrate the knowledge you have acquired. Make sure the assignment get to your facilitator on or before the expiration date. Get in touch with your facilitator in case you would not be able to submit your TMA at the stipulated time.

### **End of Course Examination**

This examination concludes the assessment for the course. It constitutes 70% of the whole course. You will be informed of the time for the examination.

## **Summary**

This course intends to provide you with some underlying knowledge of Geography education. By the time you complete studying this course, you will be able to answer the following type of questions:

1. Explain the concept of Geography
2. Explain the three stages of development in Geography
3. Describe the various branches and scope of Geography
4. Discuss the importance of Geography in School education?
5. Describe the various methods of teaching Geography
6. What is lesson plan? Describe the structure and characteristics of a lesson plan
7. What are the procedures to follow in preparing scheme of work?
8. What are instructional aids? Describe some relevant instructional aids used in teaching Geography.
9. What are the roles of ICT in teaching and learning of Geography?
10. Describe some co-curricular activities in Geography
11. Describe some relevant evaluation methods in Geography

Note that the list of questions that you can answer is not limited to the above listed questions. You should try to apply your practical experiences to some other questions that may arise. We wish you success in this course, in particular, we hope you will be able to appreciate Geography education and the teaching techniques/methods used to impart knowledge for expansion.

<b>TABLE OF CONTENTS</b>	<b>PAGE</b>
<b>Module 1</b>	
Unit 1 Concepts of Geography-- -- -- -- -- -- --	8 - 20
Unit 2 Methods of Teaching Geography -- -- -- -- --	21 - 39
<b>Module 2</b>	
Unit 1 Planning a lesson and preparation of scheme of lessons on Geography	40 - 57
Unit 2 Instructional materials in teaching Geography -- -- --	58 - 90
Unit 3 Technology and innovation in teaching Geography -- -- --	91 - 95
<b>Module 3</b>	
Unit 1 Co-curricular activities and Teaching Geography -- -- --	96 - 114
Unit 2 Evaluation in Geography -- -- -- -- -- -- --	115 - 136

**MODULE 1: Concepts of Geography**

**Module Structure**

Unit 1: Concepts of Geography

Unit 2 Methods of Teaching Geography

**UNIT 1: CONCEPTS OF GEOGRAPHY**

**Unit Structure**

1.1 Introduction

1.2 Learning Objectives

1.3 Introduction to Geography

1.3.1 Meaning of Geography

1.3.2 Scope of Geography

### 1.3.3 Importance of Geography in School education

#### 1.4 Summary

#### 1.5 References/Further Readings/Web Sources

#### 1.6 Possible Answers to Self-Assessment Exercise(s) in the content



## 1.1 Introduction

These days geography is considered a part of the composite science of Human Society. Its purpose is to study the structure and behaviour of human society. Though all the social sciences have common purpose i.e. the study of man, each presents unique point of view and has evolved its own technique of studying human affairs and solving social problems.

Geography has also gone through different changes from time to time. It means that we have to understand the development journey of Geography. To understand this form of development, Geographers divided it into three parts:

- Geography in Ancient Age
- Geography in Middle Age
- Geography in Modern Age

Geography in the beginning did not have a very wide scope. It was limited in subject matter. Man, in fact, is a creature of nature which undergoes change constantly. It is the change which is the fundamental of the development & processes. Geography is also progressive, changing as well as dynamic in nature. Now the scope of the subject has widened and it has become very important. Every day we make use of the knowledge of this subject. Geography as a discipline can be split broadly into two main subsidiary fields: the human geography and the physical geography. The human field largely focuses on the built environment, how humans create, view, manage, and influence space. The latter examines the natural environment and how organisms, climate, soil, water and land focus, produce and interact. The difference between these



approaches led to a third field, the environmental geography which combines the physical and the human geography and looks at the interactions between the environment and humans.



## **1.2 Learning Outcomes**

By the end of this lesson, you should be able to:

1. Explain the meaning, concept, and scope of Geography teaching
2. Discuss the importance of Geography in school education
3. Analyse the aims & objectives of teaching geography



## **1.3 Meaning of Geography**

Geography is the branch of knowledge that studies the lands, the features, the inhabitants and the phenomena of the Earth. The first person to use the word geography was Eratosthenes and literally means “writing about the Earth”. The word can be divided into two parts – “Geo” and “graphy”. Geo means the earth and graphy refers to writing. Today Geography means much more than writing about the earth, it is however, difficult discipline to define. Geography is a fascinating subject which reveals all the wonderful changes and activities that have been going on in the world since the beginning of time. Geography draws from across the physical, cultural, economic and political spheres to the local and the global environments. Through Geography we learn to appreciate the diversity of landscapes, peoples and cultures. Geography is therefore a vital subject resource for 21<sup>st</sup> century global citizens, enabling us to face questions of what it means to live sustainably in an interdependent world.

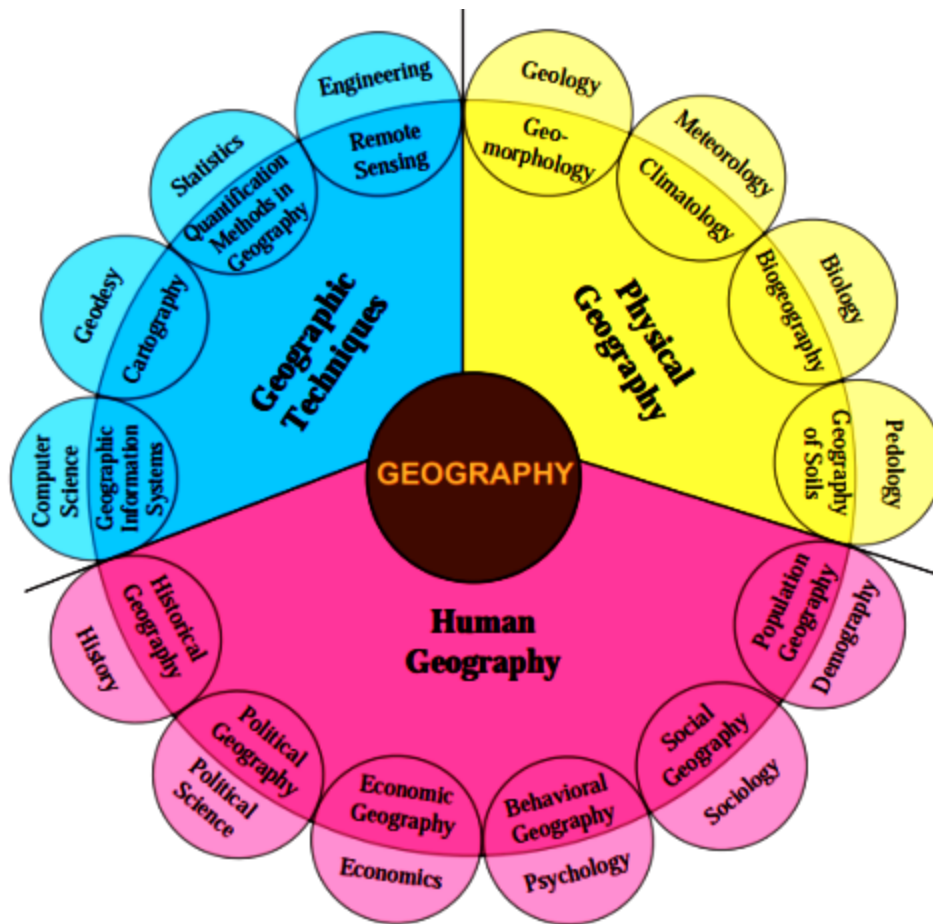
### **i. Concept of Geography**

Geography has had a very long history of development. It passed through different phases of rise and fall and at every new stage the concept of geography underwent a change. The environment of geographical thought and concept took place during the age of discoveries and explorations. The ancient Egyptians, Babylonians, Phoenicians, Greeks and Romans made valuable contributions to geographical concepts during the sixteenth, seventeenth and eighteenth centuries. More and more geographical concepts developed as geography gradually emerged

from a descriptive approach of the classical times to analytical approach of the present time. Recent years have witnessed the greatest innovations in the various fields of geography due to its new concepts and techniques and rediscovering phenomena from a scientific and new approach.

The most widely recognized concept of scientific geography treats the world as essentially an abode of man and solving national and international problems. The perspective of the present day geography is as wide as the earth and as large as life itself. The human aspect of geography has been lately recognized because of the great revolution in educational psychology. Today, we are more concerned with the needs and interests of the child who has to live in a world of diverse things and events where various human communities are settled. Hence for school purposes we shall define geography as “the study of the people of the world”.

Modern geography is now considered to be a separate science requiring a detailed study of the territories of the world. Its instrument of study is the map and like any other science it follows a scientific course. The geographers of today are now increasingly concerned with understanding process, patterns and structure, and examining geographical data by techniques commonly used in other school disciplines. The integration of natural environments and their expression on the landscape is the field of geographical studies.



### Relationship between Geography and Other Disciplines

Modern geography is defined as a “Unifying science and the raw material it deals with is derived largely from other sciences and studies, it deals with the material in its own way seeking and discovering the interrelation of phenomena and the integration between man and the phenomena. This concept of applied geography is of great significance in developing universal brotherhood and offers scope for geographical techniques of survey, analysis and synthesis for the solution of practical problems in the modern times of planned development.

The introduction of statistical techniques has proved very useful for carrying out researches in physical, economic, human and regional geography. The land use survey is a technique adopted by geographers for study of agricultural regions to bring about an improvement of the social services and understanding the processes of economic, regional and social development.

Essentially, geography was a study of mankind. Today geography can be defined as “a science of man on the earth; studying the action and interaction between man and nature.

**James Fairgrieve** defines “Geography as the science of relationship between physical inorganic factors and principles and of organic factors.” **Cholley** has expressed his view that “The object of geography is known in the earth.”

“The character of a particular region cannot be explored in terms of individual categories of phenomena such as natural, social, Biological arranged in series, but in term of combinations produced among them, because it is these combinations which create the different physical and human aspects which the surface of the earth reveals to us”.

“It is astonishing variety of aspects which this covers reveals to us, oceans, continents and overlying that all the diversity of vegetational landscapes of systems of culture, forces of settlement and the organization of the human group.”

**Preston James** explains that “Geography deals with the association of phenomena that gives character to particular places and with the likeness and differences among places.”

### **Self-Assessment Exercise (s) 1**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. Geography teaching enables the child to leave his self-centered isolation and to realize that there is a bigger human world beyond his narrow circle of lining and that he is a member of this world. **True/False**
2. Geography is the branch of knowledge that studies the lands, the features, the inhabitants and the phenomena of the Earth. **True/False**
3. The most widely recognized concept of scientific geography treats the world as essentially an abode of man and doe not solve national and international problems. **True/False**

### **1.3.2 Scope of Geography**

Geography today covers a vast field and comprises many branches of scholarship in its fold. Like the bee, it sucks honey from every flower. Its subject matter consequently lends to end borrows interest from both scientists and students of social sciences, as it includes physical sciences like physics, chemistry, mathematics, and astronomy the one hand and Natural and humanistic studies like any other science drives its raw material from other sciences. It employs the derived raw material from its angle and its manner. Geography has its unit of study of the regions of the world. Each unit, interlinked, has its peculiarities. The Geographer studies each region and tries to put forward geographical explanation for its conditions and vice versa. Geography thus takes a very wide outlook and tries to interpret the action and integration of all physical factors in relation to the intricate problems of the life of man on the surface of the earth. The scope of geography has become so vast and complex that a need has arisen for specialization. As a result, the subject matter has broken up into a number of branches as shown below:

#### **a. Physiography**

This branch studies relief, soil, and structure of the earth. It is the source for the other branches and is, therefore, the most important branch of geography as the whole superstructure of the discipline of geography is built upon it. Its spilt up into a number of sub branches making the subject-matter of geography most comprehensive but at the same time immensely interesting. Some of its important branches are geomorphology, glaciology, seismology, hydrology, climatology, pedology, biogeography, medical geography, and palaeogeography. Geomorphology studies the earth structure comprising various types of rocks, mountains and their evolution and it receives inspiration and guidance from the works of geologist. Its study comprises dividing a country into physiographic regions. For instance, Nigeria is divided into the following major physiographic divisions:

- i. North central highlands
- ii. Western uplands
- iii. Eastern highlands
- iv. Niger-Benue trough
- v. Chad basin
- vi. Sokoto plains

## vii. Coastal plains

Glaciology is concerned with the study of glaciers. In Nigeria glaciers mostly rare except in some areas with higher altitudes of the Mambilla plateau where there is evidence of perennial accumulations of snow. The causes of earthquakes and their bearing on the interior structure of the earth are dealt with in the science of Seismology. The hydrological characteristics of rivers, lakes, fluvial morphology, peculiarities of flood genesis, fluctuation of water table and underground water resources, genesis of coastal features and many other hydrological problems are the domains of hydrology. Climatology is not a new science in Nigeria. It is the study of causes and distribution of temperature and winds, rainfall and runoff, weather and climate, vegetation and topography etc. Thus geographers along with chemists, geologists and biologists feel interested in the study of soil science called pedology.

### **b. Economic Geography**

This concerns the production and distribution of the raw materials in a particular area. The internal, external and international trades come within its domain. It studies the influences, both physical and political, which operate on man's economic life and conditions of development in the fields of agriculture, manufacture and commerce. The study also includes the impact of constructional investment on the socio-economic life of the people. The problems of movement of labour and industrial locations are tackled both by geographers and economists. The location and distribution of mine-based raw materials and agricultural-based industries are also some of the subject of study of the geography of powers which is the basis of all industrial developments. The study of geography of agriculture and livestock is another branch of economic geography. Soil erosion is the greatest single evil to agriculture and animal husbandry. The agricultural practices are usually dependent of the working of livestock which suffer from under starvation due to scarcity of adequate fodder resources. This is another problem which attracts the attention of both geographers and the agriculturists.

### **c. Human Geography**

The subject covers the evolution of mankind, its different races, their distribution and man's adaptation to environments. It is an established fact that no man's life today it tied up completely

to his immediate surroundings and that human life is to be treated as a partial adaptation to the geographical area. The influence of environments on the mode of life is a subject in which geographers are as much interested as the anthropologists.

The geography of population studies the various causes of regional variations in population distribution. Settlement geography deals with the size, form and functions of settlement built up by the man and analyses their historic growth. In the study of urban geography, there is less of the theory of environmental determinism. It is widely accepted today that it is not the physical-biological environments alone that determine man's ability to make the best use of the natural resources around him but the philosophy of life and technical skill that he has acquired are the main determining factors.

**d. Political Geography**

This branch deals with the government of state and countries. Geography had its birth in the research of finding out the relations between man, his physical environments and the state to which the individual belonged. This gave birth to political geography in Greece, Great Britain, USA and Germany. It is the least developed branch of geography, though there is more than ample scope to expand its horizons.

**e. Cartography**

The term is applied to the conception, design and execution of maps or the art of drawing maps and charts. This branch is responsible for geodetic and topographic surveys and preparation of maps on certain selected scale. Even though a geographer has no monopoly on cartography, it is important that every geographer should have a working knowledge of cartographic presentation, not only to read maps but also to make them.

**f. Urban Geography**

Urban geography brings clear focus to the concepts of location, interaction and accessibility as well as distribution and movements of population. It deals with land use patterns and classifications of cities according to their function. Basic and non-basic urban employments are described in the urban geography. Level of hierarchy of towns, functions of the towns and

structure of the towns, functions of the towns, land use pattern and structure of the towns are explained with reference to relevant models. Socio-economic composition, age structure, sex structure, journey to work movements, modes of travel and housing sites of the urban areas are dealt with.

**g. Anthropogeography**

The study of the distribution of human communities on the earth in relation to their geographical environment is Anthropogeography; it thus bears the same relation to anthropology as biography does to biology, and zoogeography does to zoology.

**h. Agricultural Geography**

Agricultural Geography helps a geographer to understand how particular kinds of farms and farming systems have developed in particular areas and how they are similar to or different from the farms and farming systems of other areas. Further, it enables him to understand how different kinds of agriculture are distributed over the earth and how they function in this spatial arrangement.

**Self-Assessment Exercise (s) 1**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. Urban geography brings clear focus to the concepts of location, interaction and accessibility as well as distribution and movements of population. **True/False**
2. The term cartography dose not applied to the conception, design and execution of maps or the art of drawing maps and charts. **True/False**
3. The geography of population studies the various causes of regional variations in population distribution. **True/False**

**1.3.3 Importance Of Geography In School Education**

*Why is Geography an important subject in school education?*

At present geography is one of the important subjects in school curriculum. Geography derives a lot of material from such subjects as Biology, Anthropology, Sociology, Economics, Mathematics, Chemistry and other sciences. The subject matter of geography includes study of natural environment of man and also the study of social and cultural environment. Thus, geography has a very wide scope unparalleled by any other subject. Geography is a science and



an art. It tries to train and develop good citizens who may be able to solve various social economic and political problems of the country. The importance of geography can be understood more clearly by considering the effect of geography teaching on man as human being, as an administrator, as a politician, etc. the importance of geography is discussed as follows:

- i. **Practical importance:** Knowledge of geography is quite handy to prepare the students to face various problems of life. If a student is familiar with the natural conditions of a country, its climate, vegetation, natural resources, mineral wealth etc then it become easier for him to plan his future. Such knowledge can be of much help to an individual in developing social, political and economic relationships with the other countries. Thus we find that the knowledge of geography has a practical utility.
- ii. **Cultural and Intellectual Importance of Geography:** Knowledge of geography helps us in acquiring the knowledge about cultural and intellectual life of a particular country and in this way it becomes easier to carry out a proper study of the cultural life of whole world. The knowledge of geography also helps a student in developing his power of imagination and also encourages him to find out cause and effect of various phenomena. When a student of geography learns about the mountains, rivers, forest etc. Then a image of all these things is focused before him whenever they actually comes across any of the features under study. Geographical factors also influence the intellectual life of a country so we can say that geography has an intellectual importance. In the words of fairgrieve “The real value of geography lies in the fact that it helps man to place himself in the world to learn his true position and duties”.
- iii. **Economic Importance:** Geography has its economical importance as well. Knowledge of geography helps us to know about various natural resources of a country or a region in a country. Such knowledge can be used for the economic progress of a country. Such knowledge can be used for the economic progress of a country or a region .We flourish in the world only if we have economic prosperity.
- iv. **Social Importance:** Knowledge of geography helps students in developing a proper social outlook. A proper social outlook develops a feeling of brotherhood for the nationals of other countries and makes a student broadminded. He no more remains self centred and he develops a feeling of world citizenship. Thus, knowledge of geography has a social importance.

- v. **Importance of earning a livelihood:** We spend a major part of our life in earning our livelihood and the knowledge of geography can help us to a large extent in this. Such knowledge is also helpful to us to utilize our leisure time in a beneficial way. It is the knowledge that we gained in geography about the things and conditions prevailing around us that help us in this. The knowledge of geography has given us the knowledge of various sources that are available and which could be profitably tapped to earn our livelihood.
- vi. **Natural Curiosity:** We have a natural curiosity to know more and more about the life style of people in other lands and countries. The knowledge of geography helps to satisfy this natural curiosity and also throws light on the various factors that influence our life style. Thus geography has an important role in satisfying our natural curiosities.
- vii. **Importance in understanding other subjects:** Knowledge of geography helps us to understanding various other subjects e.g. sociology, economics, Anthropology, Biology etc. For example knowledge of geography helps in understanding history because it provides the proper perspective. Various historical events have been influenced by geographical factors. The development of civilization began in India and Egypt because of geographical reasons. Geography factors also influence the political system in a country. The prevalence of democracy in Switzerland is due to geographical factors. To acquire a thorough and proper knowledge of political science the knowledge of geography is essential. The social life and structure of society in a country is governed to a large extent by various geographical factors prevailing in the country. Knowledge of geography also helps to properly understand the subject matter of sociology.

Thus we find that knowledge of geography is important in understanding and acquiring the knowledge of various social sciences. Thus we find that geography occupies an important place in various fields of life. Because of all above geography occupies an important place in primary, secondary and higher education.

### **Cultural Aims of Geography**

- a) To develop a feeling of patriotism.
- b) To develop love for nature and capacity to understand and appreciate the natural beauty, physical forces and such other things.

- c) To develop the ideal of world citizenship universal brotherhood; cooperation and sympathetic outlook for others.
- d) To assess the cultural values in the light of values of land and the man.
- e) Adjustment of human life according to the geographical circumstances.

### **Intellectual Aims of Geography**

- a) To develop the cultural consciousness
- b) To develop the understanding of caring livelihood.
- c) To develop the understanding of use of leisure time in proper manner.
- d) To develop the power of observation.
- e) To develop the power of thinking, reasoning, memory and power of imagination.
- f) To develop their ability to draw conclusion and to generalize.
- g) To develop the creative talents of pupils and to develop an attitude of discovery in them.
- h) To develop the skills of reading map and globes, to develop drawing and measuring skills and to develop the skills of using and manipulating geographical instrument.
- i) To develop scientific attitude and to develop the ability to draw valid conclusion and interdependent thinking.

### **Social or Citizenship Aim of Geography**

- a) Geography offers many possibilities for developing sympathy for the lives and problems of others people. It develops in the pupils a social sympathy and feeling of relationship with others.
- b) Geography teaching enables the child to leave his self-centered isolation and to realize that there is a bigger human world beyond his narrow circle of living and that he is a member of this world.
- c) Geography helps pupils appraise their real worth. Every person, no matter what type of intelligence he possesses has a place in the society. It is good for the society to keep persons of different skills and calibers. The geography should help pupil to discover their latent qualities and to take pride in their talent.
- d) To develop a constructive attitude towards all that concerns his country.

- e) To create a requisite of creating love for once country is to make him know it thoroughly by laying honestly before the pupil's interest, aspirations and tradition of this country.
- f) To develop and understanding of necessitates lining on a basis of international co-operation and understanding.
- g) To impart knowledge of geography for solution of the economic, social and political problem which helps to bridge the gap and helps in avoiding conflict by bringing about international understanding.

### Self-Assessment Exercise (s) 1

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. \_\_\_\_\_ help individuals to know more about the lifestyle of people in other lands and countries. (a) knowledge (b) understanding (c) culture integration (d) natural curiosity
2. Knowledge of geography is handy to prepare the students to face various problems of \_\_\_\_\_ (a) intercultural dispute (b) marriage (c) life (d) traditional status
3. Geography is a science and an \_\_\_\_\_ (a) art (b) commercial (c) practical (d) social



### 1.4 Summary

In this unit, we have learnt:

- i. The various definitions of Geography and that Geography is the branch of knowledge that studies the lands, the features, the inhabitants and the phenomena of the Earth.
- ii. The scope of Geography including Physiography, economic geography, human, political, cartography, urban geography and anthropogeography among others.
- iii. Importance of geography in terms of exposing students to be familiar with the natural conditions of the earth, helping them to acquire the knowledge about the knowledge about cultural and intellectual life of an area, promote in students the knowledge of various natural resources of a particular place, among others.



### 1.5 References/Further Readings/Web Sources

- Alao, N. (1978). Geography in Nigerian Universities. *Nigerian Geographical Journal*, 21(1), 31-37.
- Effeh, E. J. (ed) (2007). Perspectives of Geography. Tamaza Publishing Company, Zaria.
- Faniran, A. Okunrotifa, P.O. (1981). A Handbook of Geography Teaching for Schools and Colleges, Heinemann Educational Books, Ibadan
- Khalil, M.S., Sabiu, N. and Muhammed, S.N (2015). A Brief Look at Geography Education in Nigeria: A Case Study Of Kano State. *Dutse Journal of Pure and Applied Sciences*, 1(1), 11 – 18
- Ololobou, T.P. (2000). Teaching High School Geography in Nigeria: A Plea for More Functional Approach, in Bello, A.L. et Al. (eds.) Geography and Resources Management in Democratic Nigeria. 43<sup>rd</sup> Annual Conference of the Nigerian Geography Association Held at ABU Zaria.



### 1.6 Possible Answers to SAEs

Answer to SAEs 1

1. True
2. True
3. False

Answer to SAEs

1. True
2. False
3. True

Answer to SAEs

1. D
2. A
3. B

## **UNIT 2: METHODS OF TEACHING GEOGRAPHY**

### **Unit Structure**

- 2.1 Introduction
- 2.2 Learning Outcomes
- 2.3 Methods of Teaching Geography
  - 2.3.1 Laboratory Method
  - 2.3.2 Project Method
  - 2.3.3 Regional Method
  - 2.3.4 Discussion Method
- 2.4 Summary
- 2.5 References/Further Readings/Web Resources
- 2.6 Possible Answers to Self-Assessment Exercise(s) within the content



### **2.1 Introduction**

The instinct of curiosity is the master instinct among children. Children’s experience proves that they are curious to see things for themselves. Their environment is full of things and object about which children want to know everything. They have questions of which they want answers. The geography teacher exploits this instinct to make the teaching of geography interesting and meaningful.

Successful teachers always keep in view that teaching must “be dynamic, challenging and in accordance with the learner’s comprehension. He does not depend on any single method for making his teaching interesting, inspirational and effective”.

Regarding the importance of Methodology, it may be said that a Methodologist, like any other scholar will be required to carry on his self-education throughout his life because a well trained Methodologist will confront new developments in his science, judge their merits, relate them to past trends and make a reasoned choice as to what he wants to integrate into his own thinking. It may also be pointed out that a meaningful solution of the problem depends on the methods which

are available. In other words, it means that if a problem has been unsuccessfully examined at an earlier stage of discipline's evolution, it should be repeatedly attempted till a synthetic approach has been achieved. With this end in view, we should talk about new Methodology in Geography in the field of teaching methods.



## **2.2 Learning Outcomes**

By the end of this unit, you will be able to:

1. Demonstrate different methods of teaching geography in classroom
2. Explain the role of a teacher in the application of methods in the classroom
3. Discuss the merit and limitations of various methods of teaching Geography



## **2.3 Methods of Teaching Geography**

### **2.3.1 Observation Method**



Psychologist came to know the fact that children possess instinct of curiosity and are curious to see the things for themselves and particularly those things which exist around them. The geographers exploited this fact to their own advantage. A thing observed and a fact discovered by the child for himself his own efforts become a part of mental life of the child. It is certainly

more valuable to him than the same fact or facts learnt from the teacher or a book. The principles aspects of observation method are:

- i. To observe
- ii. To record
- iii. To interpret.

The technique of obtaining geographical information by direct observation is basic to the subject.

### **Aids to geographical Observation**

Observation method for teaching geography may be used inside the class room as well as outside the class -room.

Inside the classroom, the following aids help observation:

- i. **Globe:** Globe is a useful aid. By observation, children can develop such concepts as longitude, latitude, meridian etc.
- ii. **Charts:** Charts prepared by children themselves or those commercially produced also enhance children's observation.
- iii. **Models:** Children observe things, and they can convert the results of their observation into models.

### **Outside the Classroom**

The teacher can enrich children's observation by adopting certain modes outside the classroom. The teacher may use the following modes for this purpose Geography is essentially an observational science. Within the four walls of the classroom, the teaching of geography is limited to the globe, maps and the text-book. The real geography exists outside the classroom. The children should be made to observe geographical facts like the temperature, pressure, direction and velocity of the wind, clouds, lakes, and mountains. The first-hand experience about these phenomena of nature gives clear understanding of natural happenings.

Outsides the classroom, there are fields, crops, soil etc. which also forms part of geographical content. On the spot, observation of these entities followed by discussion in the classes enriches



children's knowledge of geographical facts. The teacher of geography would like to make children study the surrounding environment, the landscape and what it offers to man to make his living meaningful.

- a) **Field Trips:** Field trips help in exploring the environment. Children may be taken out into the larger landscape to observe geographical objects, prepare brief notes, and collect specimens and so on.
- b) **Excursions:** Excursions educate as well as entertain. Children learn by interacting with the environment. Excursions to hill stations or to geographical monuments help children to understand certain phenomena.

#### **Merits of Observation method:**

- a) Trains the pupils to observe and reason about the fact they observe. This method brings the students of geography into direct relationship with the environment.
- b) By this method we interpret the unknown in terms of the known-the known by observation and experience. It is essentially an outdoor work. Nothing should be allowed to take the place of direct observation whenever this is possible. So this is direct method of gaining geographic knowledge.
- c) The merit of this method lies in the work and not in the results. It is training in intelligent observation and not in collecting the data.
- d) This method develops the habit of accurate thought and investigation.
- e) It is based on the finding of psychology i.e., there is instinct of curiosity in every human being which prompts every human being to know.

#### **Limitations of Observation Methods**

- a) Observational study makes a big demand on the out-of-class time of teachers and the students, which the timetable of the school does not permit in most schools.
- b) This method is suitable for lower classes as the observation made by young children are necessarily limited.
- c) Sometimes the observational study may degenerate into aimless wandering, wastage of much time and energy because of lack of understanding and direct action from the teacher. To let the children, observe things without proper guidance and the knowledge may not be profitable at all. There must be proper guidance and the knowledge gained by

observation must not be supplemented through methods as actual observation of child is always limited.

### **2.3.2 Laboratory Method**

A geography Laboratory may be defined as a room in which are contained all written, audio, and visual materials pertinent to geographic instructions. The classroom itself may be converted into a laboratory. It is relatively self-contained and has within it most of the materials that the teacher and students will normally be utilizing. The physical arrangement of a classroom thus made is such that book cases, magazine racks, newspaper holders and equipment surround the room.

The laboratory method of instruction, used so successfully in the natural sciences, has been adopted for application to geography with equal success. This method seems to have grown out of the directed study. The laboratory method places primary emphasis upon equipment and its use. So this method presuppose a well-equipped room in which the students have access to books, magazines, maps, pictures, drawing and construction material and other type of material which will promote better work. In those situations, a special room is not available; the teacher of geography can place these instruments in an ordinary classroom. The procedure of the laboratory method is similar to that of problem-solving approach or a completion of a project or preparation of charts, models, and maps or conducting of experiment to arrive at a general principle.

The teacher and the pupils both perform certain experiments based on scientific principles to make certain concepts of geography clear. The students either individually or in groups make use of the materials for solving different problems in geography. Practical work in geography constitutes the laboratory work. The data collected in the field or a farm or from the statistical reports are transformed into maps and diagrams in the laboratory. After the field observation, the need of laboratory is felt to give concrete shape to the ideas.

### **The Role of the Teacher**

- i. In this method the role of the teacher is that of a guide and helper than that of taskmaster

- ii. Before performing the experiments in the class the teachers should test the apparatus by performing the experiments himself and if the experiment is successful only then he should perform the same experiment, to the students beforehand. The students should be encouraged to arrive at the results themselves.

### **Good Features of the Laboratory Method**

- i. Much of the modern education practice is based upon the assumption that children 'Learn by Doing'. This method is regarded as the pupil's of basis of real learning. Students taught in this way learn to be observant, exact and to think for themselves. This method throws the whole weight of the teaching process on to the process of the growth of the mind rather than on the storing of knowledge. Experimenting is naturally interesting and appealing to young people.
- ii. The natural way of making discoveries and the way the human race has taken is from the concrete to the abstract. Laboratory work is exceedingly concrete and hence interesting and enjoyable to the young students. It emphasizes the doing and it requires the students to accomplish something that is within their capacity.
- iii. The use of laboratory method helps to develop in the students valuable personal qualities, such as balances judgment and consideration for others. For instance, in moving about in the class-room, sharing material of making experiments', children learn to exercise self restraint for the benefit of the group.
- iv. Learning achieved by this method is of a higher quality, more real and more extensive than that acquired by the old didactic method.
- v. Laboratory work is an important element in the study of geography because there is otherwise no opportunity for deliberate and close observation of geographical facts.
- vi. It is psychologically sound because it satisfies the urge for activity which is fundamental drive in human beings.
- vii. Perhaps the most important part of geography is not the physical arrangement but the healthy atmosphere of the class which is conducive to an attitude of information seeking "digging" on the part of the students. The proper material and equipment and physical setting help to motivate the students to drink deep from the well of knowledge.

- viii. Some topics of geography can be taught most successfully by activity method. This method is very effective in the area of physical geography and map work.
- ix. It is through the use of the activity method that the child is helped to feel the significance of what he is learning. In this method the students are encouraged to find out, think about and experience things for themselves and by themselves. In this method the pupils are not mere listeners but are active participants in the lesson. Some of them are making experiments; others are observing and making inferences from what they observe. This method is based on the principles of “Learning by Doing”. The pupils make use of their hands or eyes or very often both. The pupils are led to obtain information by their own active efforts. It is an activity method, where the pupil is mentally active all the time just as a discoverer and a research student. In this method a child thinks for himself. The child learns only when his mind is active. This method combines the best features of all the methods in a way that makes provision for individual differences. This method is based on problem solving, directed or supervised study and the socialized situation.

### **Limitations of Laboratory Method**

- i. It is not so easy to make the students discover geographical facts or concepts by experiments.
- ii. It is very slow method of learning and teaching.
- iii. It degenerates sometimes into a kind of manual training.
- iv. Geography rooms in most schools are not properly with material to follow this method.
- v. This method cannot be employed usefully for teaching economic, regional, historical and human geography.
- vi. This method cannot be employed in the junior stage because the children have not developed their reasoning and observational power.

### **List of Experiments that may be performed**

- i. Prove that the sun is more nearly overhead in the summer than in the winter by finding the length of the shadow of a yard stick at noon each day. When will the shadow be longest?
- ii. Test the thermometer at the melting point of ice and the boiling point of water.

- iii. Examine the maximum and minimum thermometers, then taking reading with them.
- iv. Stick a knitting needle through an orange. Hold the needle so that it represents the axis of earth tilted at  $23\frac{1}{2}^{\circ}$  from the perpendicular. Move it round a lighted candle which would represent the sun. Find where the earth would be.
- v. Dust particles in the air can be easily seen in the following way. Darken a window into which the sun shines. Make a small hole in the shutter and it admits a ray of sunshine. Shake duster or burn brown paper in the room and watch the dancing dust.
- vi. How would you find the height of the mid-day sun at a place the latitude of which is known?
- vii. Rotation and revolution may be explained by rotating a ball round a lamp.
- viii. To explain the causes of ocean currents, take a flask from below. A current of hot water will rise up and the cold water from the top of the flask will come to take its place. Potassium permanganate will help the visibility of hot current.

### Self-Assessment Exercise (s) 1

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. \_\_\_\_\_ is not among the principles aspects of the observation method (a) to observe (b) to record (c) to explain (d) to interpret
2. Inside the classroom, the following aids help observation, Except \_\_\_\_\_ (a) charts (b) signals (c) globe (d) models
3. Which among the following methods help the students in exploring the environment? (a) field trips (b) case study (c) inquiry (d) teaching practice

### 2.3.3 Project Method

#### *Why is Project Method important than other Methods?*

Among all the methods of teaching geography, Project method is the most important which is frequently applicable to teaching-learning process. It is a method which stands against the traditional method of teaching where the theoretical knowledge from the book is accepted and received by the students. In propagating this method, American educationist John Dewey did much work.

## **Project Method Discussed**

Prof. Kilpatrick defined a project as “a purposeful activity which proceeds in a social environment”. Dr. J.A Stevenson who perfected it as a method of teaching said, “it is a problematic act carried to completion in its natural setting”. According to C.V. Good “A Project is a significant unit of activity, having educational value and aimed at one or more definite goals of understanding. It involves investigation and solution of problems and frequently the use and manipulation of physical materials. It is planned and carried to completion by the pupils and the teacher in a natural life-like manner.”

Project may be individual or co-operative, large or small. It may be employed according to the mental age of the pupils. But that must be done under the guidance of an expert. Psychologically, the project method is based on the principles of learning by doing which encourages maximum amount of purposeful activity on the part of the pupils. Adopting this method, the heart, head and hand are to be functional. That means both the physical and also the mental powers of the child are to be exercised or utilized.

## **Basic Principles of Project Method**

- a) The project must be based on activity-mental or motor.
- b) It must be purposeful in its action.
- c) Under the project, the children must accumulate experience-manipulative, concrete or mental.
- d) It must provide real experience.
- e) It must be useful in nature.

## **Steps of Project Method**

The project method consists in the following steps:

- i. **Providing a situation:** A Project is never to be forced upon pupils. Situations may be provided by conversations or different topics, discussions on pictures, buildings or cities, by telling stories or taking out children on excursions and educational tours and trips.
- ii. **Choosing a Project:** After a situation has been provided, the next step is the choice of a good project. Only such a project should be selected as many satisfy some real need of

the pupils and for the good of all of them. The pupil must feel that the project is their own.

- iii. **Planning:** After suitable choice have been made, the next step is prepare a plan for the execution of the project. The entire planning is to be done by the pupils under the guidance of the teacher, after a good deal of discussion. Each child should be encouraged to participate in the discussion and offer his suggestions. The entire plan should be put in black and white by the pupils if their project book is complete.
- iv. **Executing:** When the plan is ready the teacher should encourage the pupil to put it into practice. He should ask the pupils to assign duties and distribute work among themselves, according to their individual interests and capacities. Each must be given some duty to do for the successful completion of the project. Then, they should be asked to work in co-operation with one another till the project is complete.
- v. **Judging or Evaluating:** After the completion of project, the student should be asked to review their work. They should note their mistakes, if any, and see whether they had proceeded, according to the plan or not. It is a sort of self-criticism which is very important from training and should never be neglected.
- vi. **Recording:** All the pupils should maintain a project-book in which they should put down a complete record of all the activities, connected with the project. This record will include the choice of project, its planning, discussions held, difficulties felt, duties assigned, references and books consulted, information gathered, experiences gained, guidance sought etc. Important points for further references and guidance are also to be noted down.

### **Geographical Project Employed in Schools**

Geographical project may consist of running of a vegetable stall or cloth, cultivation or ploughing of field, running of a school, an agricultural farm, a post office. Village and town markets are other geographical projects. Another type of project consists in the preparation of models of house, school, railway station etc. For the senior students the following are recommended:

- a) Making sand or clay models of different sections of the various river valleys - the Ganges, the Indus etc.

- b) Pupils may be encouraged to stage a play showing the life in various regions of the world.
- c) A hill scene e.g. National showing railway lines, a bridge, cultivated fields, roads and other important features.
- d) Pupils may be asked to prepare economic and distributional of the local area.
- e) Setting and running a geographical museum is another important and useful project of educational value.
- f) Pupils may be encouraged to read papers and organise excursions.
- g) Pupils may cultivate a vegetable or a fruit garden.

### **Merits of Project Method**

- a) As it is based on the psychological principle, it is only for the development of the inherited traits of the child providing the most natural conditions.
- b) Applying this method, education gets more meaning and value in comparison to the traditional methods of teaching.
- c) It develops social values like co-operation, fellow-feeling and brotherhood.
- d) As it involves manual activities, it emphasizes the dignity of labour.
- e) The students by this method, understand the importance of learning by doing and direct experience of things.
- f) This method employs the sense and not mere words or symbols.
- g) It trains the pupils in the exercise of invention and self-responsibility.
- h) The child gets training in research work through this method.
- i) The child derives satisfaction when he achieves something by his own efforts.
- j) Lastly, the students can evaluate their work.

### **Demerits of Project Method**

Sometimes, efforts are wasted in an attempt to base the whole of geographical syllabus on projects. This is not very practicable in real sense.

The main drawbacks of the method are:

- a) It requires more money to be spent and this is very difficult to manage.
- b) Trained and qualified teachers to put this method into practice are not available.



- c) All schools do not have resources to use this method.
- d) Projects are difficult to devise for all stages of teaching.

#### **2.3.4 Regional Method of Teaching Geography**

Sometimes back geography was taught on the basis of political divisions. Each country was studied separately with details of its mountains, rivers, climate, production, towns, people, industries, and trade. It had no connection with its neighbors. Such a method of teaching Geography was neither satisfactory nor scientific. It is therefore, old method of teaching Geography. Now we take different countries, with common physical features, climate, production, mineral wealth and economic progress etc at a time and study them together. It was Herbertson who gave impetus to this method by dividing the whole world into regions that are naturally different from one another. If Geography is the study of the interaction of man and his physical environment, it is clearly best to study different types of physical environment or different natural regions.

Prof. E.A Macnees argued that “The regional method of teaching geography is a method in which the area studied is divided into natural regions, each of which is studied separately. The major political divisions are, of course of great practical importance and must be taught sometimes. But for the purpose of relating the physical environment and human activities, the study of natural regions is most effective”. “Regional Method of teaching geography is in fact closely related with the method of basing geographical teaching on home geography”.

It is advisable that the teacher should as much as possible start from the home region. The geography of the local surrounding should form the basis of advanced studies. Let the students now stretch their imagination and make use of their experiences and knowledge gained from the local surroundings to the distant lands. The students should be made to understand the casual relation of all these social and natural phenomena.

Hrbertson’s classification of the world can be used in a modified form. His classification is of great value in sub-dividing the continents and in analyzing the factors which influences human activities. Those countries which lie within this climatic division may further be divided into

structural zones. In the study of a particular region there is considerable scope for a varied method to be employed.

### **Major Natural Regions of the world**

The latest classification of the major natural regions of the world is given below:

#### **1. Tropical Belt**

- i. The Equatorial Region
- ii. The Monsoon Region
- iii. The Hot Deserts
- iv. The Sudan Type Region

#### **2. Warm Temperate Belt**

- i. The china Type Region
- ii. The Mediterranean Region
- iii. The steppes or Turan Type Region

#### **3. Cool Temperate Belt**

- i. The Manchurian Type or St. Lawrence Type Region.
- ii. The North –west European Type Region
- iii. The prairie Region

#### **4. Cold Belt**

- i. The Taiga Forests
- ii. The Tundra
- iii. The Ice caps

It should however be noted that this classification of natural regions is based on climate at least an approximation. The placing of regions in a particular category, means that they have more resemblances than differences. The limits of these natural regions are also approximate. The change from one natural region to another is often gradual and not abrupt or sudden.

### **Individual work on regional lines**

To divide a geographical unit into natural regions is considered to be a scientific method. This method awakens and cultivates the regional consciousness of the learners. When one of the students has cultivated regional consciousness in them by frequent application of this method, they come to acquire a sort of tool which will be helpful to them in the subsequent geography work. This method is required to investigate and write the account under each heading in the regional sequence. The method scheme can be adapted for individual work in regional method.

- i. **Geographical Position:** The situation of the region should be clearly defined. This can be done firstly with reference to surrounding countries or continents or oceans etc. Secondly in mathematical terms, every region lies within certain lines of latitude and longitude and the names and numbers of these lines, which enclose that region, should be clearly mentioned. The area of that region should also be calculated if possible by convenient means.
- ii. **Configuration of Land:** A detailed account of distribution of mountains, Plateaus and hills, valleys and plains should be described as accurately as possible. If ordinance survey map of that region is available, then the detail can be had by interpretation. The outstanding features, like peaks, gorges, ridges spurs, saddles etc. should be noted. The relief of a region is a key to its physical geography, and it helps to explain much of the human geography because various features of relief have profound effect on man. The slope of the ground, the description of valley, the shelter of a cliff these and many others will decide whether man's settlement is exposed or sheltered, swampy or dry, protected or liable to attack, difficult to approach, accessible to neighboring communities and so on.
- iii. **Hydrography:** Relief and water features are intimately connected and the relation of river system to land configuration should be described. A pattern of drainage system of the area should be prepared on a map, to bring out the relationship of relief and drainage system. A study of the distribution and nature of the streams and rivers and their valleys are essential. Some of the relief features may show the effects of glaciations. The teacher should point out debris assembled in a valley, helps the students to recognize the other features such as Hanging Valley, lakes, ice scooping and basins of more important streams.

- iv. **Climate:** The lines of latitude and longitude determine the position of a region on the surface of the earth. This position enables the teacher to infer the seasonal conditions of the region, position of the sun, from which it receives the heat. From these things we can easily deduce the atmospheric pressure, the direction of the winds and consequently we can form some idea of rainfall in related to the climate facts as stated before.
- v. **Vegetation:** Having acquired a clear idea of the physical features and climate of a particular region, it will be easy to ascertain the various types of vegetation and vegetation zones occurring in that region. In atlases there are all special maps showing the distribution. So, lots of information can be gathered from these maps with respect to the distribution of vegetation. A rainfall has a great say in type of vegetation and barring certain factors such as those of altitude and salinity, the vegetation zones, very nearly correspond to rainfall zones. All possible co-relations are made between climate and relief on the one hand, and vegetation on the others.
- vi. **Human Geography:** Physical factors affect men and influence their mode of life and choice of settlement. The main thing is that we should learn to tools at the map and study the location of a place, its shape, size and notice how it fits into general pattern of settlement, their influence on the distribution of settlements the form of individual towns or villages .The teachers should try to obtain some idea of the influence of physical features on the distribution of settlements and on the form of the individual towns or villages on the distribution of settlements, the density of population per square mile.

### **Procedure to be followed in teaching through the regional method**

The following are the most common procedure, which is generally followed while teaching through the Regional Method:

- i. For studying a particular region, at first locate structure, relief, drainage, and climate are taken in a serial order.
- ii. Then natural and agricultural vegetation and animal life are taken.
- iii. After this distribution of minerals and their use in the development of industries are dealt with.
- iv. Thereafter the distributions of population, chief occupation of towns are studied.

- v. Finally, the region is studied in relation to other regions of the world. It is at this stage that comparative method also comes in. Thus, a combination of comparative and regional method not only makes Geography teaching more effective but also saves much of labour.

It should however be remembered that in dealing with each region, the advance of human civilization on earth, must be emphasized. Regions in cold belt present the most primitive type of nomadic hunter type while desert lands in the tropical belt exhibit a more advanced life, both socially and economically.

By regional method, we mean two things. Firstly, the whole world is studied by dividing it into natural regions. Secondly, each continent or country or province or district is studied under different heads, namely, structure, relief, climate, vegetation, minerals and life of man.

### **Merits of the Method**

- i. Quickest way of getting pupils understand Geography: As Prof. E.A Macnee has stated “The chief advantage of the Regional Method that it is the quickest way of getting pupils to grasp the salient features of the geography of any area. No other method can give so quick a start or so sound a basis for further study”.
- ii. Orderly and Systematic: It is a scientific orderly and systematic method. As has been stated above, each region is studied in relation to its structures, relief, climate, vegetation, mineral wealth, and life of man in a serial order.
- iii. Lends itself to independent study: The Regional method lends itself to independent study. It can be resorted to individual methods of teaching. After cultivating the regional consciousness of the pupils, they can be asked to investigate and write the account under each heading of the regional sequence, independently.
- iv. Gives clear picture of the co-relation of physical features with socio-economic activities: This method gives a clear picture of the co-relation of physical features with the social and economic activities and other phases of man’s life. So, it helps in making pupils understand the drama of human development on this earth and its spread in the world.

- v. Promotes international undertaking: This method makes it clear to student that although different regions are scattered over the whole world in separate belts, human life is almost similar, despite of political barriers. Thus this method boards the outlook of students and inculcates in them the spirit of tolerance, brotherhood and universal compassion. Thus, it promotes international understanding.

### **Limitations of this Method**

- i. Too much repetition: In this method there is a lot of digressions and repetition because the student has to follow the same plan again and again. The region of student may change but the method of approach remains the same.
- ii. Useful in upper classes only: This method requires background of Geography on the part of pupils. They must learn that cause-and-effect technique before following this method, so it can't be used in lower classes.
- iii. Dangers of missing smaller regions: As we have already noted, the boundaries of natural regions are not very exactly defined, so one region may merge into another. And while paying attention to broader regions, the smaller regions may be missed and neglected all together. Sometimes the study of smaller regions is very vital and important from Geographical point of view.

It may, however, not be understood that regional method intends to minimize the importance of political division in Geography. Each political division or country should be regarded as a separate unit and as such it should be divided into natural regions or less important countries, these may be grouped together whenever possible for purposes of Geographical study, or the principle of "cause and effect".

### **2.3.5 Discussion Method**

#### ***What are the merits and limitations of Discussion method?***

In the discussion method, as it is true with any group learning effort, the instructor typically relies on the students to provide ideas, experiences, opinions, and information. An instructor may use this during classroom periods, and preflight and post flight briefings, after the students have gained some knowledge and experience. Fundamentally, the discussion method is almost the opposite of the lecture method. The instructor's goal is to draw out what the student's know,

rather than to spend the class period telling them. The instructor should remember that the more intense the discussion and the greater the participation, the more effective the learning. All members of the group should follow the discussion. The instructor should treat everyone impartially; encourage questions, exercise patience and fact, and comment on all responses. Sarcasm or ridicule should never be used, since it inhibits the spontaneity of the participants. In a discussion, the instructor act as a facilitated to encourage discussion between students.

### **Procedure of Discussion Method**

The instructor opens the discussion by asking one of the prepared lead-off questions. After asking a question, the instructor should be patient. The students should be given a chance to react. The instructor should have the answer in mind before asking the question, but the students have to think about the question before answering. Sometimes an instruction finds it difficult to be patient while students figure out answers. Keep in mind that it takes time to recall data, determine how to answer, or to think of an example.

The more difficult the question, the more time the students will need to produce an answer. Sometimes students do not understand the question. Whenever the instructor sees puzzled expressions, the questions should be rephrased in a slightly different form. The nature of the questions should be determined by the lesson objective and desired learning outcomes.

Once the discussion is underway, the instructor should listen attentively to the ideas, experiences, and examples contributed by the students during the discussion. Remember that during the preparation, the instructor listed some of the anticipated responses that would, if discussed by the students, indicate that they had a firm grasp of the subject. As the discussion proceeds, the instructor may find it necessary to guide the direction, to stimulate the students to explore the subject in greater depth, or to ensure them to discuss the topic in more detail. By using how and why follow-up questions, the instructor should be able to guide the discussion toward the objective of helping students understands the subject.

When it appears the students have discussed the ideas that support this particular part of the lesson, the instructor should summarize what the students have accomplished. In a guided

discussion lesson, the interim summary is one of the most effective tools available to the instructor. To bring ideas together and help in transition, an interim summary can be made immediately after the discussion of each learning outcome. This will summarize the ideas developed by the group and show how they relate to, and support, the idea discussed. The interim summary may be omitted after discussing the last learning outcome when it is more expedient for the instructor to present the first part of the conclusion. An interim summary reinforces learning in relation to a specific learning outcome. In addition to its uses as a summary and transitional device, the interim summary may also be used to keep the group on the subject or to divert the discussion to another member.

### **Advantages of Discussion Method**

- i. **Emphasis on Learning instead of Teaching:** Discussion Method emphasizes pupil-activity in the form of discussion, rather than simply telling and lecturing by the teacher. Thus, this method is more effective.
- ii. **Participation by Everybody:** In this method, everybody participates in the discussion, and therefore thinks and expresses himself. This is a sure way of learning.
- iii. **Development of Democratic way of Thinking:** Everybody cooperates in the discussion, and the ideas and opinions of everybody are respected. Thus, there is a development of democratic way of thinking and arriving at decision.
- iv. **Training in Reflective expression:** Students, during the course of discussion, get training in reflective thinking, which leads to deeper understanding of the historical problem under discussion.
- v. **Training in Self-expression:** During discussion, everybody is required to express his ideas and opinions in a clear and concise manner. This provides ample opportunities to the students for training in self-expression.
- vi. **Spirit of Tolerance is inculcated:** The students learn to discuss and differ with other members of the group. They learn to tolerate the views of others even if they are unpleasant and contradictory to each other's view. Thus, respect for the viewpoints of others is developed.
- vii. **Learning is made Interesting:** Geography is an important subject. The learning of Geography is made interesting through Discussion Method. More effective learning is



possible when the students discuss, criticize, and share ideas on a particular problem. Active participation by the students in the discussion makes learning full of interest for the students. This also ensures better and effective learning.

### **Limitations of Discussion Method**

- i. All types of topics cannot be taught by Discussion Method.
- ii. This method cannot be used for teaching small children.
- iii. The students may not follow the rules of discussion.
- iv. Some students may not take part while others may try to dominate.
- v. The teacher may not be able to guide and provide true leadership in the discussion.

Despite these limitations, Discussion Method is a very useful and effective method for teaching of Geography.

### **Self-Assessment Exercise (s) 1**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. One of the following is not a principle of project method (a) mental activity (b) purposeful in action (c) provide real experience (d) dramatizing it
2. The project method consists of the following Except \_\_\_\_\_ (a) providing a situation (b) choosing a project (c) planning (d) coordinating.
3. Which methods of teaching geography allow the participants to think and express themselves? (a) project (b) field trip (c) discussion(d) role-play



## **2.4 Summary**

In this unit, you have learnt the different methods of teaching which Geography teacher can adopt. These include observation, laboratory, project, regional and discussion methods. The merits and limitations of all the methods have also been studied in the unit. It is advised finally,

that in order to make learning of Geography interesting and inspirational to the students, the teacher should use different relevant teaching methods in the delivery of his lesson.



## 2.5 References/Further Readings/Web Resources

Kwan, T., So, M. (2008). Environmental learning using a problem-based approach in the field: A case study of Hong Kong School. *International Research in Geography and Environmental Education*, 17(2), 93–113

Rudic, V. (1998). *Teaching methods in geography*. Belgrade: Scientific book.

Rudic, V. (2007). Development of teaching geography in Serbia. Belgrade: Institute for the Advancement of Education.



## 2.6 Possible Answers to SAEs

### Answer to SAEs 1

1. C
2. B
3. A

### Answer to SAEs 2

1. B
2. A
3. D

## **MODULE 2:** Planning a lesson and preparation of scheme of lessons

- Unit 1 Planning a lesson and preparation of scheme of lessons in Geography
- Unit 2 Instructional materials in teaching Geography
- Unit 3 Technology and Innovation in Teaching Geography

### **UNIT 1 PLANNING A LESSON AND PREPARATION OF SCHEME OF LESSONS ON GEOGRAPHY**

#### **Unit Structure**

- 1.1 Introduction
- 1.2 Learning Outcomes
- 1.3 Concept of Lesson Plan
  - 1.3.1 Necessity of planning lesson
  - 1.3.2 Format of Lesson Plan
  - 1.3.3 Meaning of Scheme of Lesson
  - 1.3.4 Need for and importance of scheme of Lesson
  - 1.3.5 Procedure of preparing scheme of lesson
  - 1.3.6 Specimen of Scheme of Lesson
- 1.4 Summary
- 1.5 References/Further Readings/Web Sources
- 1.6 Possible Answers to Self-Assessment Exercise(s) in the content



#### **1.1 Introduction**

In Geography teaching, the real meaning of lesson-plan is the systematic preparation made for class teaching by the teacher. The order in which, to present the subject –matter of any sub-unit, is made in the mentality of the teacher to represent it in the class. The outline of the systematic arrangement of the main points of the subject-matter alone is lesson-plan. The particulars of student’s pre-earned knowledge, subject matter, aims arrays, creating devices and techniques etc. are included in it. Lesson-plan is in teacher’s role as a servant and not as a master. The teacher is

free for making change and correction in the terms of class teaching according to the need. It is not compulsory to comply with the lesson-plan word by word by the teacher.

In short, a lesson-plan is the systematic preparation of a teacher done in a scientific manner. Without a lesson-plan, even the most competent of the teachers is unsuccessful. There may be differences among the scholars regarding the form of the lesson-plan but there cannot be two views regarding its need. There is a description of the acquired knowledge, new knowledge, question method, means materials etc in the lesson-plan.

The lesson-plans are for use of students-teachers. Thus, they should be prepared in such a manner that they can make maximum use of these in their teaching. R.L Stevenson said, “To every teacher I would say, “Always plan out your lesson beforehand but do not be a slave to it”. Bagley has put it thus, “However able and experienced the teacher, he could do never without his preliminary preparation.” To be effective, every intelligent worker plans out his work .A surgeon diagnoses the case, prepares his surgical instruments before he puts the patient on the operation table, a lawyer makes attempts to anticipate and prepare for every move in the court, an engineer prepares his blueprint before he actually starts the construction work of a bridge or a building, the house mistress plans the details of the meals, the sales manager gives careful attention to every step in a proposed selling campaign. So, a teacher must plan and prepare his work. I.K Davies observes “Lesson must be prepared for there is nothing so fatal to a teacher’s progress as unpreparedness”. Ryburn states the importance of this concept as, “To teach we must use experience already gained as starting point of work”.



## **1.2 Learning Outcomes**

By the end of this unit, you will be able to:

1. Explain the meaning of Lesson Plan
2. Analyze the importance of lesson planning
3. Describe scheme of lesson

4. Discuss the need and importance of scheme of lesson
5. Prepare lesson plan and scheme of Lesson on the basis of Specimen of the scheme of Lesson.



### **1.3 Concept of A Lesson-Plan**

L.N Bossing has given a comprehensive definition of a lesson-plan, “Lesson-plan is the title given to a statement of the achievements to be realized and the specific means by which these are to be attained as a result of the activities engaged during the period”. According to Davis, “Lesson must be prepared for there is nothing so fatal to a teacher’s progress as unpreparedness”. According to N.L Bossing, “Lesson-plan is the title given to a statement of the achievements to be realized and the specific means by which these are attained as a result of activities engaged during the period”. According to Bining and Bining, Daily lesson-planning involves defining the objectives; selecting and arranging the subject matter, determining the method or procedure.”

#### **Structure of a Lesson-Plan**

Bining and Bining observe,” Daily lesson-planning involves defining the objectives, selecting and arranging the subject matter and determining the method or procedure”. What a Good Lesson-Plan Should Include - A lesson-plan indicates the aims, to be realized by teaching a lesson, the methods to be employed and the activities to be undertaken in the class so that it is engaged for the realization of the aim. A lesson-plan is a plan of action. It includes:

- i. The working philosophy of the teacher,
- ii. His information and understanding of his pupils,
- iii. His comprehensive knowledge in terms of the objectives of education,
- iv. His knowledge of the material to be taught,
- v. His ability to use effective methods of education.

A Lesson-plan is the programme of the teacher which indicates class contents of the subject matter and the method of doing it well. The lesson-plan reflects the teacher's skill, intelligence, ability and his personality.

### **a. Essentials of a Good Lesson-plan**

The following are the characteristics of a good lesson plan:

- i. **It should have clear aims:** The lesson-plan should clearly state the objectives, general and specific, to be achieved.
- ii. **It should be written** A lesson-plan should preferably be written and should not remain at the oral or mental stage. Panton writes, "The teacher is strongly advised, at least in the early stages, to make a written note of his preparation. Memory sometimes proves a treacherous servant, especially when his attention is divided. It is advisable, however, not to teach from notes". Excessive reliance upon these may undermine the teacher's confidence so that he can never do without them. If, however, the teacher has occasion while teaching to refer to his notes, it is better for him to do so openly than to take a suspicious peep at them. By doing so, he may likely be misjudged by his pupils. Writing helps in clarifying thoughts and in concentration.
- iii. **It should show techniques of teaching:** It should state clearly the various steps that the teacher is going to make, and also various questions that he will ask.
- iv. **It should be linked with the previous knowledge:** The plan should not remain an isolated one. It should have its basis on the background of the class. It should grow out of what the pupils have already learnt.
- v. **It should contain suitable subject matter:** The materials of instruction or subject matter should be carefully selected and organized.
- vi. **It should show illustrative aids:** This is the illustrative aids to be shown in the lesson-plan.
- vii. **It should be divided into units:** The plan should be divided into units, but care should be taken to see that the lesson remains an integrated whole and every unit develop from the previous and submerge into the next one.
- viii. **It should be divided for audio-visual aids:** To motivate the lesson, there must be a provision for audio-visual aids.

- ix. **It should provide for individual differences:** The plan should be prepared in such a way as it does full justice to all the students of varied capacities.
- x. **It should provide for activity:** The children must be given enough scope to be active. It should not make them mere passive listeners.
- xi. **It should be flexible:** The plan is a means and not an end. It is wrong to follow it slavishly. It is an instrument and should be used as such. The teachers should be prepared to change his teaching methods from those as referred to in the plan, if need to be.
- xii. **It should show routine things:** The plan should indicate the duration of the period, the period itself, average age of the students, subject and the class.
- xiii. **It should refer to reference books:** The plan becomes more useful if it refers to references or other reading material. This will encourage the bright students to read extra books. Care should be taken to suggest only those books which are available in the library.
- xiv. **It should include assignment for children:** A good lesson-plan cannot be thought of without any assignments for the children. The assignments may be in the form of recapitulating questions or home task.
- xv. **It should provide for self-criticism:** A good lesson-plan must have some plan for self-criticism. The teacher should put some questions to himself and find out the answer and judge thereby the effectiveness of the lesson or otherwise.
- xvi. **It should include the summary:** The lesson-plan should include the summary of the whole lesson which is to be built up on the black-board with the help of the students.

### **Characteristics of Good Lesson-Planning**

- i. It makes the objectives of teaching lesson quite clear to the teacher.
- ii. The language of lesson-plan should be easier and comprehensible.
- iii. Lesson-plan should be in written form.
- iv. It helps teacher to be systematic in presentation of subject-matter, in arranging sequential and appropriate teaching activities, in deciding questions to be asked and problems likely to arise during teaching.
- v. It should be flexible.

- vi. It helps teacher to decide motivational techniques and teaching aids.
- vii. It works as a guide for content, method, activities, aids etc.
- viii. Provision of alternatives for questions should be kept in the lesson-plan.
- ix. The subject-matter should be presented in the lesson-plan in a logical sequence.
- x. Lesson-plan should be similar to the mental level of students with the view of utility.
- xi. There should be no kind of irregularity in the selection of learning activities in the lesson-plan.
- xii. There should be the provision of the partnership of students in every step of the plan.
- xiii. For evaluation, effective and practical technique should be used.
- xiv. The easy, available and useful teaching aids only should be selected for the lesson-plan.
- xv. No moment of the period should be such in the lesson-plan in which the students, being disconnected with the teacher, may get chance to be inactive.

### **1.3.1 Necessity of Planning Lessons**

Necessity of planning a lesson arises because of the following reasons:

- i. Lesson-planning keeps both the teacher and the taught on the right track. As a result, teaching activities do not become haphazard and vague or confused.
- ii. Lesson-planning makes teaching activities meaningful and stimulates us to see what the outcome is going to be.
- iii. It is yardstick to measure success or failure. Teaching becomes effective and the teacher plans in the desirable direction.
- iv. Lesson-planning is a time-success or failure. The teaching can be properly organized and become systematic.
- v. It is very much helpful to the teacher to illustrate teaching materials effectively. He can enter the class with confidence.
- vi. It helps the teacher to avoid unnecessary repetition. Continuity of the lessons of a units is maintained.

### **Procedure to be Followed to Plan a Lesson**

While planning a lesson, the teacher should keep in mind the following principles:



- i. Planning should be flexible. It can be changed according to the needs of the teacher and the pupils. It should not act as a master of the teacher. Rather it should simply guide him in his teaching activities.
- ii. The teacher should have sufficient training in the methods and techniques of teaching Geography. As a result, he can plan the lesson effectively.
- iii. The teacher should have sufficient training in the methods and techniques of teaching Geography. As a result, he can plan the lesson effectively.
- iv. The teacher should encourage pupil's participation at the time of delivering the lesson.
- v. Planning should be done in advance. As a result, the teacher can get an opportunity to have a glance at the subject that he is going to teach. He should go fully prepared to the class.
- vi. The teacher should be scientific in his treatment of lesson-planning. The teacher should try to correlate the previous knowledge effectively.
- vii. The teacher should provide opportunity to the students for the practical use of their knowledge.
- viii. The teacher should use various teaching aids while presenting the topic. The presentation should be interesting.
- ix. Planning should not be too long. It should be prepared within the required limitations.
- x. Black board work should also be organized properly.

### **Advantages of Lesson Planning**

The following are the main advantages of lesson-planning:

- i. It stimulates the teacher to think in an organized manner.
- ii. It helps the teacher to understand the objectives properly and fully.
- iii. It helps in creating the interest of the students towards the lesson.
- iv. A proper correlation is established between the new and old lesson.
- v. It provides guidance to the teacher as to what and how he should teach.
- vi. It encourages the teacher to think about and use of teaching aids.
- vii. It helps the teacher to choose the best teaching method.
- viii. It inspires the teacher to ask proper and important questions.

- ix. It helps the teacher to teach, keeping in mind the individual differences.
- x. The teaching matter is organized in a time frame.
- xi. It takes care to consider the level and previous knowledge of students.
- xii. It develops self-confidence in the teacher.
- xiii. It helps the teacher in evaluating his teaching.
- xiv. It clarifies the outlook of the teacher.
- xv. It brings definiteness and regularity in the thinking of the teacher.
  
- xvi. It inspires the teacher to improve the further lessons.

### **Self-Assessment Exercise (s) 1**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. To make teaching meaningful and stimulating the teacher need to prepare a good \_\_\_\_\_ (a) lesson activity (b) purposeful action (c) lesson plan (d) purposeful activity
2. Which of the following is not one of the characteristics of a lesson plan? (a) clear aim (b) subject matter (c) be divided into units (d) coordination
3. The lesson plan keeps the \_\_\_\_\_ on the right track during lesson presentation? (a) teacher (b) students (c) school (d) activities

### **1.3.2 Format of Lesson-Plan**

A teacher must make attention to important elements for completing the lesson-plan as follows:

- i. Teacher must have sound knowledge of the subject.
- ii. Teacher must have capacity to record the behavioral objectives achieved in proper manner so that it may be evaluated.
- iii. Teacher must be capable to create proper environment in the class room.
- iv. He must have skill to complete the lesson in class and to face difficulties while teaching the lesson.
- v. He must have skill to complete the lesson in class and to face difficulties while teaching the lesson.

vi. He must have skill to form question for evaluation purpose.

In lesson-plan Herbart's suggested steps are being used, which are as under:

- i. Topic
- ii. General objects
- iii. Specific objects
- iv. Pre-knowledge
- v. Helping materials
- vi. Introduction
- vii. Statement of objects
- viii. Presentation
- ix. Regularization
- x. Revision
- xi. Home-work

These are explained below:

- a) **Topic:** Serial number of lesson-plan, date, time allowed, class, school's name and lesson/unit are mentioned under it.
- b) **General Aims:** Here objectives of Geography are mentioned. There are three objectives of Geography - Behavioural, disciplinary and cultural.
- c) **Specific Aims:** In this head those objectives are mentioned which are obtained after teaching and these are written or noted in the order of change of behaviour these are different for each lesson unit.
- d) **Previous knowledge:** We consider here those facts which are known previously to students as they have already read them. Questions are formed for introduction on this base.
- e) **Material Aids:** For making teaching effective and lesson more interesting we should use proper helping materials. It may be charts, models, pictures, things, figures, TV, Radio or Magic lantern etc.
- f) **Introduction:** It is the main step of lesson-plan. We select questions relating with introduction of lesson in this step. Hence, teacher selects some questions based on

previous knowledge for relating new knowledge with previous knowledge. These questions must be selected in such a way that may create interest and curiosity for reading new lesson in students. We take only 7 or 8 minutes for this purpose.

- g) **Statement of Aims:** Just after the introduction, such questions are asked to students which are quite unknown to them i.e. they do not know the answer of those questions. These questions create problems. It should be brief, attractive and definite.
- h) **Presentation:** The question which creates problem in the head statement of aims gets proper reply by division of many short questions i.e. question is divided into many short questions for better explanation and reply. Lesson is properly developed at this stage. This head is divided in two following steps:
  - i. Systematically of content
  - ii. Rightness of teaching method

Lessons are taught by question-answer method by using proper helping material and by using method to make interesting the lesson. Presentation must be interesting for success of lesson.

- i) **Generalization:** Teacher derives new rules or principles on the basis of facts taught in the presentation under this method. If student himself derives new rules on the base of facts already known to him, then it will be presumed as success of lesson taught to him.
- j) **Recapitulation:** After finishing the lesson, such questions must be asked from students which may indicate that what the students have learnt from the lesson taught to them. Whether they have understood the lesson completely or not. If there is any doubt, the teacher should make further explanation for clear and better understanding of the lesson.
- k) **Home Work:** At least, some work is given to students to do at home, so that they may do practice at home. While giving home work to them, it should be kept in mind that hard questions should be given after simple questions already told to them or replied by them to maintain a mental status. Home-work should not be given as a load upon students; otherwise they will try to avoid it. Moreover, it is compulsory to make it checked on the next day.

It is also essential that lesson must be finished within the time period allowed for it and students as well as teacher may become active during the stated period.

Another format of a Lesson Plan is as suggested below:

- i. **Topic:** Lesson is marked under this method.
- ii. **Objectives:** It contains objectives relating to the lesson.
- iii. **Teaching Points:** Steps, concepts, relations, procedures principles, symbols and hypothesis contained in the topic are noted under this head.
- iv. **Previous Knowledge:** It includes previous knowledge of students.
- v. **Material Aids:** Charts, models, pictures, objects and other visual and hearing apparatus are used under this head.
- vi. **Methods of Teaching:**
  - a) Demonstration method
  - b) Analytical Method
  - c) Question-answer method

The methods which are being used in teaching must be described here.

vii. Introduction

viii. Statement of Aim

ix. Class Work

Teacher's work or actions	Pupil's actions
a) Questions description, to draw figure b) Use of material aids and demonstration of experiment and ideal solution etc.	Answer, Inspection, And solution of questions and generalization

Objectives or teaching points	Teacher's activities	Pupil's activities	Blackboard work
Those points which are required to be described for purpose of training	Description of teacher's actions or activity at the time of teaching of each point (Calculation, answer and to draw	Reaction of students according to the action of teacher by students (4) To draw figures	(1) Work done by teacher (2) Question solved 3) Answers given

	figure by students)		
--	---------------------	--	--

- x. **Revision or Recapitulation**-Questions are given on the topics which are already taught to them.
- xi. **Homework**-Students are provided to do questions at home under this head. The questions are solved by students and these questions are checked by teacher on next day.

### 1.3.3 Meaning of Scheme of Lesson

“We learn:

10% of what we read

20% of what we hear

30% of what we see

50% of what we see and hear

70% of what we discuss with others

80% of what we experience personally

95% of what we teach someone else.”

---William Glasser

The process of learning and adapting to a new job is difficult in any profession. A common theme running through research on the experience of the beginning teacher is a stranger in a new land-the territory of which and whose rules, customs and cultures are unknown but who has to assume a significant role in the society. In this situation practice teaching plays a vital role for the non-teachers to adopt and adjust them self to the new situation.

Practice teaching is meant to help teachers to gain knowledge about the profession and the various tools and aids which make for a successful transfer of knowledge from the teacher to the taught.

Practice teaching is a crucial phase of any teacher education programme. It is a prerequisite for the development of teaching skills among the prospective pupil. The purpose of a teacher’s training college is to produce teachers who acquire certain identifiable competencies. They will

fail in its obligation if its teachers do not know how to communicate effectively, manage the class within norms of individual freedom and good behavior and who know a little more than bits of information called knowledge of the subject matter. They have to realize that all classes of children can't be handled uniformly and no society sends her children to school with equal motivation. Similarly, a single course of study doesn't create all kinds of competencies. Prof. R.P Singh (1998) conducted a study on product evaluation and found that "what is being offered in the name of teacher education today is not only irrelevant but very unhelpful. Teaching which a skill area is taught theoretically and one seems to take the curriculum seriously. A B.Ed. degree is a kind of driving license and it matters little how a person acquires it. It revealed three things.

- i. B.Ed. rarely gives its recipients specific competency.
- ii. Of the theory papers very few could recall even an item or two of what they had learnt even in their favorite papers and
- iii. Of the entire course the relevant content formed a very small part of the total."

He has raised the question about the relevance of the B.Ed. programme.

In order to overcome these questions, it is necessary to have a sound Programme of teacher education with a sound internship programme. Preparation for teaching practice plays an important role in the entire programme of teachers' training. Before pupil-teachers go to schools to participate in the teaching practice activities, they should be well prepared for it. The areas of preparation for teaching practice are - Enrichment of content knowledge, micro-teaching, simulated teaching, observation lesson, preparation and use of teaching aids, knowledge of preparation, administration and scoring of tests, planning of lessons, maintenance of records and registers, teachers diaries, organization of co-curricular activities, mastering different teaching skills and last but not least is knowledge about preparation of scheme of lesson.

Every teacher encounters problems on some occasions. For an inexperienced teacher, a lesson can become a nightmare. Practice teaching has an important role to play for successful teaching in later life of a teacher. For the smooth and successful conduct of teaching practice, Scheme of lesson plays a vital role.

A well-prepared scheme of lesson plan is a useful aid for pupil-teachers for maneuvering his teaching in the right direction and completing the task in time. So, let us discuss about the meaning, needs and importance and procedure of construction of a scheme of lesson.

Scheme of a lesson is therefore the plan of a teacher for timely and systematic coverage of course of any class allotted to him. The question of when, what and how of the curricular and co-curricular activities can be bitterly answered by the new teachers through a scheme of lesson.

### **Needs and Importance of Scheme of Lesson**

The Scheme should be prepared for the following reasons:

- i. It presents a clear picture of the activities to be done by the teacher. Thus, it makes the teacher ever conscious of his activities.
- ii. The teacher becomes alert and active. The teacher never likes to keep his work pending.
- iii. It is a ready reference material as to what is to be taught in a particular period.
- iv. It helps a teacher to be dutiful and sincere.
- v. It helps the teacher to proceed systematically as per as the scheme.
- vi. The course can be finished in a definite time.
- vii. It helps the head of the institution or the supervisors to assess progress made by the teacher at any point of time.

### **Self-Assessment Exercise (s) 2**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. \_\_\_\_\_ is not an example of material aids (a) charts (b) paints (c) models (d) pictures
2. What stage in the lesson note the objectives of the topic are mention (a) at the beginning (b) at the end (c) discussion (d) general aims
3. \_\_\_\_\_ of a lesson is therefore the plan of a teacher for timely and systematic coverage of course of any class allotted to him. (a) scheme (b) unit (c) lesson note (d) assignment

### **1.3.4 Procedure of Preparing Scheme of Lesson**

The scheme can be prepared in the following ways:

- i. Timetable is consulted.



- ii. Holiday list of the school considered.
- iii. Follow the academic calendar.
- iv. Round up the holidays and Sundays with the red ink in the calendar.
- v. Obtain the working days.
- vi. Follow the class timetable, find out the periods available for teaching the particular subject.
- vii. Give wide scope for revision work, annual games and sports, annual drama, picnic, excursion, study tour and school exhibition.
- viii. Find out the data of real available periods for teaching the concerned subject.
- ix. Counts the dates available in every month.
- x. Go through the syllabus or content area of the concerned subject of that class and distribute the content area by dividing it into different units along the available periods.

### **Assessment of Teaching Practice**

The aspects to be evaluated and assessed may be the following:

- i. Classroom teaching performance: 20%
- ii. Preparation of a scheme of lesson: 20%
- iii. Preparation, handling and use of appropriate teaching aids: 10%
- iv. Maintenance of lesson plane: 5%
- v. Involvement in school programmes and activities besides classroom teaching: 5%
- vi. School records - Preparation/maintenance: 10%
- vii. Development of learning objective of a selected unit (in any of the particular teaching subject) in all three domains (cognitive, affective and psychomotor): 10%
- viii. Preparation of a full question paper in any subject for any class keeping into consideration Bloom's taxonomy covering all types of question i.e. long answer, short answer, very short answer and M.Q.C complete with design, blue print, marking scheme and scoring Key: 10%
- ix. Development of a scheme of Comprehensive and continuous Evaluation (covering both curricular and co-curricular aspects) for the class being taught as a part of teaching practice and preparation of a CCE certificate for 5 selected student: 10%

These criteria of assessment should be explained to the pupil-teachers, so that they can take it seriously. Side by side a Performa should be developed for assessment and evaluation for classroom teaching performance and related activities of student teacher.

If prepared in a true spirit, the scheme will go a long way in answering what, when, where and how of different aspects of curricular and co-curricular activities of teaching learning processes. It helps the beginning teachers to be sincere, punctual, and effective in his thought and action. Between theory and practice, between preparation, presentation, and completion of course, stands the scheme of lesson. If for no other reason than this proper attention should be paid to the scheme of lesson.

### 1.3.5 Specimen of Scheme of Lesson

i. **Cover pages contain:**

A Scheme of lesson on \_\_\_\_\_

For School \_\_\_\_\_

Class \_\_\_\_\_

Session \_\_\_\_\_

Back of the cover page contains:

Calendar from January to December

Or

From July to December

Or

January to June

Or

Calendar of the academic session keeping into consideration

Geographical condition of particular region

ii. **Direction**

Direction for preparing the scheme

S/No.	Matter	Page
1.	Calendar	

2.	List of holidays	
3.	Class routine	
4.	Periods available	
5.	Teachers' note	
6.	Scheme of lesson	

First Page:

List of Holidays from.....

School .....

S/No.	Month	Occasion	Date	Day of the week	No. of Days	Remarks

Routine for class .....on .....

Days	1st	2nd	Short	3rd	4th	Short	5th	6th	7th	8th
			Break			Break				

Forth Page

A detailed scheme of lesson on ..... Text book .....

Writer/Publisher .....School.....Class.....

Month	S/No.	Date	Work Proposal	Work Done	Remarks
January	1				
	2				
	3				
February	1				
	2				
	3				

Other months of the academic year should be continued

**Specimen**

**Lesson Observation Guide for the Supervisor/Teacher/Trainees**

Name of the Teacher \_\_\_\_\_ Roll No \_\_\_\_\_

Subject \_\_\_\_\_ Topic \_\_\_\_\_

Class \_\_\_\_\_ Date \_\_\_\_\_

**Preparation of the Lesson:**

- i. Has the plan been drafted neatly and systematically?
- ii. Has the necessary and up to date information been collected for the lesson?
- iii. Has the arrangement for the necessary audio-visual aids and other helping material made?
- iv. Has the teacher mentally prepared for the work?

**Objectives:**

- i. Have the objective been well through and stated in terms of behavioural changes?
- ii. How far teacher has been successful in achieving the above objectives?

**Introduction:**

- i. Were the motivating question based on the previous knowledge or previous experience of the students?
- ii. Were the facts and information recalled at appropriate moments?
- iii. Were the short answer form questions asked?
- iv. Were the questions with answers 'Yes' or 'No' avoided?
- v. Was the introduction a proper link between the past experience and day's lesson?
- vi. How far did technique of questioning prove effective?

**Presentation:**

- i. Did the teacher create and maintain a pleasant invigorating atmosphere in the class room for the lesson?
- ii. Was the subject matter adequate and suitable to the level of the class?
- iii. Was the teacher in adequate command of the Vocabulary, for the subject matter in hand?
- iv. Has the subject matter been presented in the systematic way?

- v. Did the teacher write the day's topic in the chalk board?
- vi. Did the students actively participate in the development of the lesson?
- vii. Did the teacher develop chalk board summary systematically?
- viii. Did the teacher put chalk board to effective use?
- ix. Were the activities provided to inspire self learning among the pupils?
- x. Did the teacher encourage asking questions?
- xi. Did the teacher try to clarify the doubts of the students?
- xii. Did the teacher correlate the topic in a natural way with other subjects of the curriculum or every day problem in life?
- xiii. Was the class properly managed?
- xiv. Was the display of the audio-visual aids made in an effective manner?
- xv. Did the teacher show resourcefulness in collecting the audio-visual aids?
- xvi. Were the aids used of suitable size?
- xvii. How was the attitude of the teacher towards the students?
- xviii. To what extent did the teacher impress the class?
- xix. Was the lesson lively?
- xx. Were there any healthy and situational deviations from the original plan?

## 1.9 CONCLUSION

Lesson plan and scheme of lessons are two vital elements for any successful geography teaching. Without lesson plan, no teacher is considered successful and competent in the delivery of his/her



### 1.4 Summary

In this unit we have discussed about Planning a lesson and scheme of lessons. Lesson plan is the systematic preparation of a teacher for a lesson to be given in his period in the time table for a specific subject, whereas scheme of lesson is a plan of activities of the teacher for timely and systematic coverage of his subject of a specific class. It is a plan for the whole year plan. A lesson plan, unit plan and year plan is necessary to a teacher for the smooth functioning of his

work throughout the year. Therefore, in our teachers training programme we trained the student teachers to prepare the year plan, unit plan and lesson plan which you called as scheme of lesson reminds you about the days you will get throughout the year for your teaching, examination and other curricular activities. So scheme of lesson is necessary to plan out for the whole year to go smoothly and successfully.



### **1.5 References/Further Readings/Web Resources**

Biddulph, M., Lambert, D. and Balderstone, D. (2015). Learning to teach geography in the secondary school: A Companion to School Experience, 3<sup>rd</sup> edition. London: Routledge.

Jha, P.K. (2007). *Modern methods of teaching geography*. Rajat Publications,

Khosla D.N (2005). "Report on evaluation for quality Secondary teacher education." NCTE, New Delhi.

Smith M. (2002). Teaching geography in secondary schools: a reader. Routledge



### **1.5 Possible Answers to SAEs**

#### **Answers to SAEs 1**

1. C
2. D
3. A

#### **Answers to SAEs 2**

1. B
2. D
3. A

## UNIT 2      INSTRUCTIONAL MATERIALS IN TEACHING GEOGRAPHY

### Unit Structure

- 2.1 Introduction
- 2.1 Learning Outcomes
- 2.3 Instructional aid theory
  - 2.3.1 Instructional materials to be used in the geography teaching
  - 2.3.2 Teaching aids
- 2.4 Summary
- 2.5 References/Further Readings/Web Sources
- 2.6 Possible Answers to Self-Assessment Exercise(s) in the content



### 2.1 Introduction

Instructional Materials are educational resources used to improve learners’ knowledge, abilities, and skills, to monitor their assimilation of information, and to contribute to their overall development.

For a teacher of Geography, instructional resources are those materials used to facilitate the teaching, understanding or acquisition of knowledge, concepts, skills or principles by the learners. When preparing for a lesson, the Geography teacher should ask her/himself questions such as “Do I need a teaching aid of any kind – written, aural or visual?”, “Will an aid help me achieve my objective or make the lesson more effective?”, “If the answer to the preceding question is ‘Yes’ then what kind of aid is best suited for my purpose?”



### 2.2 Learning Outcomes

By the end of this lesson, you should be able to:

1. Explain Instructional materials
2. Demonstrate the instructional materials and state its key features

3. Discuss the scope of each type of teaching aid



### **2.3 Instructional Aid Theory**

For many years, educators have theorized about how the human brain and the memory function during the communicative process. There is general agreement about certain theoretical factors that seem pertinent to understanding the use of instructional aids:

- i. During the communicative process, the sensory register of the memory acts as a filter. As stimuli are received, the individual's sensory register works to sort out the important bits of information from the routine or less significant bits. Within seconds, what is perceived as the most important information is passed to the working or short-term memory where it is processed for possible storage in the long-term memory. This complex process is enhanced by the use of appropriate instructional aids that highlight and emphasize the main points or concepts.
- ii. The working or short-term memory functions are limited by both time and capacity. Therefore, it is essential that the information be arranged in useful bits or chunks for effective coding, rehearsal, or recording. The effectiveness of the instructional aid is critical for this process. Carefully selected charts, graphs, pictures, or other well-organized visual aids are examples of items that help the learner understand, as well as retain, essential information.
- iii. Ideally, instructional materials should be designed to cover the key points and concepts. In addition, the coverage should be simple and factual so that it is easy for learners to remember and recall.

#### **Significance of Instructional Aids**

- i. It helps the learners remember important information.
- ii. When properly used, they help gain and hold the attention of learners.
- iii. Audio or visual aids can be very useful in supporting a topic, and the combination of both audio and visual stimuli is particularly effective since the two most important senses are involved.



- iv. Good instructional aids also can help overcome language barriers consider the continued expansion of technical terminology in everyday usage. This, coupled with culturally diverse backgrounds of today's learners, makes it necessary for instructors to be precise in their choice of terminology. Words or terms used in an instructional aid should be carefully selected to convey the same meaning for the learner as they do for the instructor. They should provide an accurate visual image and make learning easier for the learner.
- v. Another use for instructional aids is to clarify the relationships between material objects and concepts. When relationships are presented visually, they often are much easier to understand. For example, the subsystems within a physical unit are relatively easy to relate to each other through the use of schematics or diagrams. Symbols, graphs, and diagrams can also show relationships of location, size, time, frequency, and value. By symbolizing the factors involved, it is even possible to visualize abstract relationships.

### **Guidelines for Use of Instructional Aids**

The use of any instructional aid must be planned, based on its ability to support a specific point in a lesson. A simple process can be used to determine if and where instructional aids are necessary.

- i. Clearly establish the lesson objective. Be certain of what is to be communicated.
- ii. Gather the necessary data by researching for support material.
- iii. Organize the material into an outline or a lesson plan. The plan should include all key points that need to be covered. This may include important safety considerations.
- iv. Select the ideas to be supported with instructional aids. The aids should be concentrated on the key points. Aids are often appropriate when long segments of technical description are necessary, when a point is complex and difficult to put into words, when instructors find themselves forming visual images, or when learners are puzzled by an explanation or description.

Aids should be simple and compatible with the learning outcomes to be achieved. Since aids are normally used in conjunction with a verbal presentation, words on the aid should be kept to a minimum. In many cases, visual symbols and slogans can replace extended use of words. The

instructor should avoid the temptation to use the aids as a crutch. The tendency toward unnecessarily distracting artwork also should be avoided.

Instructional aids should appeal to the learner and be based on sound principles of instructional design. When practical, they should encourage learner participation. They should be meaningful to the learner, lead to the desired behavioral change or learning objectives, and provide appropriate reinforcement. Aids that involve learning a physical skill should guide learners toward mastery of the skill or task specified in the lesson objective.

In the teaching-learning process, the following are the reasons why instructional media should be utilized:

- i. To focus attention
- ii. To motivate learners' interest
- iii. To reinforce verbal and visual messages
- iv. To elucidate verbal concepts
- v. To save instructor's time for presentation
- vi. To provide source of information and authority
- vii. To provide experience not otherwise available
- viii. To make learning more practical, exciting and lively
- ix. For easy evaluation of the learning outcomes
- x. To make the learning more permanent and real in the learners

The Geography teacher may select his/her instructional resources from four main classes of instructional resources. These are:

- a) **Printed aids:** periodicals, books, newspapers, etc.
- b) **Visual aids:** slides, film strips, models, graphs, charts, pictorial materials, globes and maps
- c) **Audio aids:** tape recordings, radio and the instructor's voice and
- d) **audio – visuals:** motion pictures, T.V. , dramatization, etc. (Kochhar, 1984).

### Categorisation of Instructional materials according to sensory modes

Audio	Visual		Audio-visual
	Projected	Non-projected/Printed	
Radio, record disc, audio tapes/recordings	Projectors, slides transparencies	Books, journal, magazines, maps, graphs, newspapers, charts, diagrams, photographs, posters, drawings, paintings, chalkboards	Television Computer Motion picture Video language laboratory etc.

### Self-Assessment Exercise (s) 1

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. The sensory register of the memory acts as a filter during the communicative process. **True/False**
2. Short-term memory functions are limited by time only. **True/False**
3. Slides are example of Audio aids. **True/False**

### 2.3.1 Instructional Materials to be used in the Geography Teaching

#### *What are instructional aids?*

Instructional Materials facilitate and assist in the teaching and learning. Instructional materials by themselves do not guarantee effective communication and effective teaching - learning, it is their careful selection and skillful handling by the instructor that render them useful in facilitating learning. The following printed media can be selected for utilization in the teaching of geography:

#### **Textbooks**

A textbook is a book designed for classroom use, carefully prepared by experts in the field and equipped with the usual teaching devices.

### **Some Definition of Textbook**

According to **Webster's Dictionary**; "A text-book is any manual of instruction, a book containing a presentation of the principles of the subject used as a basis of instruction". **Encyclopedia of Educational Research (Third Edition)** stated that in the modern sense and as "commonly understood; the textbook is a learning instrument usually employed in schools and colleges to support a programme of instruction. In ordinary usage the textbook is printed, it is non-consumable, it is hard bound, it serves as an avowed instructional purpose, and it is placed in the hands of learner." **Dictionary of Education C.V Good** defined it as "any manual of instruction; a book dealing with a definite subject of study, systematically arranged, intended for use at a specified level of instruction, and used as a principal source of study material for a given course." **International dictionary of Education Terry page & J.B Thomas** defines it as "Basic book used in a particular course of study" **Tanner & Tanner (1975)** said Textbooks are useful guides for teachers and stable orientation for the students. **Marsh (1992)** stated that "A tool used by instructors to motivate students and to give them maximum understanding about a topic or problem." **S.k kochhar** states that TEXTBOOK is "Any book used as the basis or partial basis of a concern of study can be called a textbook. It is specially written book which contains selective and systematic knowledge. Every care is taken for coherence and sequence. It is made simple to the degree that suits the intended learner".

Analysis of the definitions of a textbook reveals the following characteristics:

- a) It is a manual of instruction.
- b) It is a standard book in the subject.
- c) It is both content and technique.
- d) It contains selected material.
- e) It is meant both for learner and instructor.
- f) It presents material in graded form.
- g) It is the foundation on which the course is based.
- h) It is used for formal as well as informal education.
- i) It is a tool for realizing the instructional objectives of the subject.
- j) It is a principal source of study material for a given course.
- k) It is the most economical instructional material among others.

## Need and Importance of Textbook

Textbook are indispensable due to the following reasons:

- i. **To help the instructor:** The textbook provides useful guidelines along which the instructor can plan his day-to-day teaching; it serves as a reference book while actually teaching in the classroom; provides suggestions for assignments and activities to be taken up in the classroom and outside.
- ii. **To help the learner:** For the learner, textbook is the most accessible guide, a dependable reference book and an all-time companion. The learner makes use of the textbook to prepare in advance for learning in the classroom; refers to it during the course of learning in the classroom; revises and reinforces the classroom learning; does assignment at home; prepares for the examination; and seeks guidance and references for further studies.
- iii. **To help in self-teaching:** The tradition of imparting education through the instrument of lecturing has high value especially when the instructor is armed with special gifts, i.e., inspiring the gifted and encouraging the weak learners, etc. But it needs to be admitted that even impact of best spoken message is necessarily transitory in character and even the most attentive listener loses any but the obvious connection in the lesson. The efficacy of the textbook lies in making self teaching a possible proposition through printed materials.
- iv. **To provide logical and comprehensive material:** A good textbook provides material in a systematic and comprehensive form. That why, it sets a standard of minimum essential to be achieved by learners of all categories. It gives the beginner a grasp of new matter. It also gives direction for further studies to enthusiastic learners.
- v. **To ensure uniformity of good standard:** The text book provides a highway for carrying better practices to all schools. Some sort of uniformity of good standard is ensured. The Textbook furnishes a common basis on which to master the process of reading, analyzing, outlining and summarizing. It, thus, furnishes a common laboratory in which to develop study skills.
- vi. **To provide a base from which both the instructor and the learner may start and continue to work:** The textbook contains the minimum essential knowledge and can, thus, provide a point of departure for more comprehensive link. Further, it provides the

common ground which both the learner and instructors may explore together. Also it can focus attention on the same issues - event, sequences and circumstances and serve well as rallying points.

- vii. **To provide both confirmation and sustenance:** The textbook is supposed to contain the facts which are carefully sifted and examined. Thus it can confirm the knowledge obtained elsewhere

### **Characteristics of a good textbook**

A textbook is called good one if it contain both Physical and Academic features.

#### **Physical Features**

##### **A. Size of the book**

- It is suitable for the learners.
- It is convenient for in handling and carrying.
- It is neither too big nor too small for the learners for whom it is meant

##### **B. Printing of the books**

- The printing is neat and clean.
- It is free from any type of errors.
- The spacing between the words, line and paragraph is even and satisfactory
- There are sufficient margins on all sides of the page.
- Each chapter beings on a fresh page.
- Length of a line is within the eye span of child.

##### **C. Type Size (font) of Textbooks**

- Different type size is used for the cover page. Title, text and captions.
- The font size used in the book is suitable for the age group.
- It does not strain the eye sight of the learners.

##### **D. Paper used in Textbooks**

- It is adequately thick.
- It is durable.
- It is smooth.

- It is of good quality.

**E. Binding of Textbooks**

- The binding of the book is sufficiently strong.
- It opens out easily.
- The sides of the book are properly trimmed.
- The cover page of the book is durable.

**F. Price of Textbooks**

- The price of the Textbook is reasonable. It suits the pockets of majority of the parents.

**G. Appearance of the Textbook**

- The text book is attractive

**Academic Aspects of the Textbook**

From academic point of view, a good textbook has the following features:

**A. Prelims and Back Pages**

- The title page is appropriate.
- The book has a suitable preface.
- The book is introduced effectively.
- The table of contents is error free.
- The book has a bibliography'
- The book has a glossary of terms used.

**B. Thematic Content of book**

- The subject matter is according to the mental level of the learners.
- It is capable of sustaining the interest of the learners.
- The facts given are correct and up-to-date.
- It provides new information to the learners.
- The content is linked to life

- It is unbiased.

**C. Organization of the contents and its presentation**

- The subject matter is divided into convenient units
- Length of each lesson suits the learners.
- The subject matter is coherent
- The organisation is flexible
- The reading material is graded in order of difficulty.

**D. Presentation of the content**

- The title of each lesson is brief, meaningful and suitable.
- The style of presentation is simple and clear.
- The style of presentation is interesting and creative.
- It has adequate provisions for replication
- It provides suitable suggestions for instructors

**E. Verbal communication (Language)**

- The vocabulary is according to the mental level of the learners
- The language used is grammatically correct.
- The sentences are short and simple
- The technical terms are used appropriately.

**F. Illustrations (Visual Aids) used in Textbook**

- The illustrations are clear
- Abstract concept of the book is clarified with the help of pictures diagrams and maps.
- The illustrations are relevant to the text
- The illustrations develop interest and motivate the learner.
- The illustrations are distributed throughout the book.

**G. Learning Assignments (Exercises and Projects)**

- i. Every lesson is followed by exercises



- ii. Instructions to do the exercises are clear
- iii. There is a variety of exercises based on each lesson
- iv. The exercises for each lesson are purposeful and adequate.
- v. The exercises help the instructor to evaluate the achievement of the learners
- vi. The exercises provide scope for projects
- vii. The exercises are graded
- viii. The exercises are challenging

### **Work Book**

The workbook is a commercially made booklet of questions and activities which may or may not accompany a textbook. Workbooks can help to reinforce reading skills, writing skills, critical thinking skills, inquiry skills, computational skills and map reading skills. The work book is effective if used in conjunction with other teaching techniques and methods.

### **Suggestions**

- i. Choose an appropriate workbook and evaluate it in terms of instructor-made objectives- how will this workbook enhance the learners' learning experiences? If the work book is assigned by the school board, report any inadequacies to the appropriate school board members. If a workbook has biased content, use it to help learners detect bias in printed materials.
- ii. Ensure that every learner has a copy of the workbook and give clear instruction as to how the assignments are to be done, when they have to be submitted and how they will be evaluated.
- iii. The instructor should check the progress, evaluate work done and provide remedial help to the learners if required.
- iv. Workbook content should be integrated into the curriculum content.
- v. Supplement workbook activities with varied and interesting activities.
- vi. Evaluate every activity in the workbook for appropriateness before assigning it to the learners.
- vii. Encourage learners to consult sources beyond the information given in a textbook or workbook

## **Guide Books**

Guide books are resources which aid the decision makers to enhance the efficacy of curriculum transaction. Guide books can be classified under the heads:

- i. Guide books for equipping the instructors in effective curriculum transaction and
  - ii. Guide book or Travel guide
- 
- a) **Guide books for equipping the instructors in curriculum transaction:** Guide books are essential to enhance the efficacy of any teaching program. It helps the decision makers to evaluate and choose materials for the geography classroom by providing vital information about the nature of the subject, its basic structure, the skills and concepts to be developed e.g. a sense of place and space, maps, globes and graphical skills, geographical investigation skills like questioning, observing, predicting, investigating, estimating and measuring, analyzing, recording, communicating and evaluating the knowledge to be acquired by the learners and the context within which the learners will develop these skills and concepts. It also aids curriculum planning and organization, by providing information about the various approaches and methodologies suited to the needs of the learners at different stages in the teaching of Geography in addition to references and guidelines for effective transaction of the curriculum.
  - b) **Guide book or Travel guide:** A guide book or travel guide is "a book of information about a place, designed for the use of visitors or tourists. It usually includes details relating to accommodation, restaurants, transportation, places of interest and activities. Maps of varying detail and historical and cultural information are also included. Travelogues too serve as a guide book as it is the published personal account of individuals who have traveled through the place. A well written travelogue has the effect of transporting the learner to the places visited by the author.

These Guide books thus have an effect of taking the learner on a journey to faraway places and acquainting them with the terrain, the flora, fauna, the language, the customs, traditions and life styles of the people of these lands.

Thus, Guide books are significant as it guides and equips the instructor with a wealth of knowledge which will equip him with skills to:

- a) enable the learner to understand the world around him/her,
- b) equip the learner with a range of skills and concepts enabling him/her to explore and record natural and human features and interactions in local and wider contexts in a systematic way,
- c) develop in the learner a sense of his/her own place and thus contributes to self identity,
- d) foster in the learner a sense of local, regional, national, and global citizenship
- e) develop an empathy for others,
- f) appreciate people from diverse cultural, ethnic, social and religious backgrounds
- g) develop in the learner a sense of individual and community responsibility for the environment.

### **Reference Materials**

Reference materials refer to encyclopedias, yearbooks, government reports, professional magazines and other magazines and news papers. Learners refer to these groups of materials as a result of interest created in the classroom and from the need for additional information. The most used encyclopedias are - Crompton's Pictured Encyclopedia, The World book, The Encyclopedia Britannica. These furnish definite additional information to supplement the text. Facts alone do not have geographical significance, but are essential as a basis for thinking. Hence the instructor must guide the learners to evaluating the information and relate it to the development of geographical understanding. Other sources of reference include government reports and documents. These are rich sources of information pertaining to industries, construction projects, discoveries of new minerals, oil fields etc. Magazines like National Geographic, The Geographic News Bulletin, The Journal of Geography, Focus etc. with its attractive pictures and well researched articles provides learners and instructors with authentic information related to geography and events across the world by experts.

### **2.3.2 Teaching Aids**

Teaching aids are tools that classroom teachers use to help their students learn quickly and thoroughly. A teaching aid can be as simple as a chalkboard or as complex as a computer program. Because every individual learns in a different way, teachers rely on these tools to explain concepts to students with a wide variety of learning needs. Teaching aids are crucial for

educators as they are key in differentiating instruction for all types of learners. The aids which use sense of vision are called Visual aids. For example: actual objects, models, pictures, charts, maps, flash cards, flannel board, bulletin board, chalkboard, overhead projector, slides etc. .

### **Self-Assessment Exercise (s) 2**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. Instructional Materials facilitate and assist in the teaching and learning processes. **True/False**
2. Workbook is a commercially made booklet of questions and activities which may or may not accompany a textbook. **True/False**
3. Teaching aids are tools used by the principals only. **True/False**

### **Map**

Map is a representation of all or a portion of the earth's surface, usually drawn to scale and on a plane or a flat surface. The term comes from the latin word 'mappa' meaning 'napkin' or cover cloth. It is a cloth which is supposed to cover the earth and where the imprint of the earth's lands and waters maybe seen.









Maps are meant to show precision in relationship with space which in actual life enables us to tell exactly where, in a given direction, a place is located, how far away it is and what other things are on the way. However, all maps contain certain levels of inaccuracy because it is impossible to represent the spherical nature of the Earth.

### **Parts of a Map**

All maps have certain standard components for purposes of clarity and easy reference. The parts of a map which one ought to look for are:

- a) Title of a map tells briefly what a map is all about, i.e., its subject matter.
- b) The legend or key refers to the explanation of the symbols used in a map for the physical and cultural features that are indicated.
- c) The scale is the relationship or ratio between a linear measurement on a map and its corresponding true distance on the earth's surface. It is a device that will allow one to measure distance and compute area. There are three types of scale;

- i. Word/statement/verbal scale – e.g. 'one inch equals five miles'
  - ii. Fractional scale - is a manner of showing scale by the representative fraction and is expressed as a ratio. Example, the fractional scale is 1: 250, 000, it indicates that one unit on the map represents 250, 000 of the same units on the surface of the earth.
  - iii. Graphic bar or linear scale indicates scale by means of a graduated line. It may be of any convenient length. Thus by simply using a ruler or divider, the actual distances between places on the map can be derived by comparing them with the linear scale.
- d) The latitudes and longitudes are the lines drawn by convention over the earth's surface in order to indicate direction and location of an area. They are the parallels and meridians that intersect each other and are together referred to as the map grid.
- e) Direction is indicated by some maps with a north arrow even if these do not have lines. The north arrow can refer either to true (geographic) north or the magnetic north. The true or geographic north is one that is in complete alignment with a meridian and points to the geographic North Pole through which the earth's axis passes whereas the magnetic north is the north that is indicated by the magnetic compass needle. The distortion between these two norths is negligible if the map is a large scale one that covers only a local region.
- f) Projection is any orderly realignment of parallels and meridians, or the spherical earth's grid onto a plane or surface area. Example:

Characteristic	Example
1. A title	Map of Nigeria
2. North Symbol	
3. A scale (Linear Scale)	
4. A legend if symbols (including colour) are used.	<ul style="list-style-type: none"> <li> Main Road</li> <li> Road</li> <li> Bushland</li> <li> Grassland</li> <li> River &amp; Creek</li> <li> Sealed Pathways</li> </ul>
5. When coloring a map, blue is only used for water.	If coloring a map of Nigeria, all of the water (lakes, rivers, oceans), would be blue. The land would not be coloured in blue.
6. Neat horizontal printing	Horizontal printing can be achieved using a ruler or a lined piece of paper under your map. Choose one method, or be prepared to do your map over!

## Mapping Concepts

Understanding and using maps involves the simultaneous use of a number of concepts and skills:

- i. A map is a plane surface (two dimensional) representation of a three-dimensional landscape. As such it is a drawing from an *aerial perspective*, i.e. the view from above, a view which children will experience very rarely
- ii. Maps use a wide range of *symbols* to convey information. Some of these, such as lines to represent roads, and blue and green shading to show land and sea, seem to be relatively easy for children to understand but others are much more abstract. Colors may also be used to represent altitude, countries or environmental regions; a point may mark a railway station, a village or town; a cross may represent a church; and lines may show roads,

rivers, canals, railways, boundaries or contours. The efficient reading of these symbols (which are not consistently used in all maps) requires the child to *discriminate* between the symbols, *interpret* their meaning and *select* those relevant to his/her needs

- iii. If a map is to be used to find a route or as an aid to understanding an environment, it must be aligned correctly with the features on the ground. The ability to align (or set) a map is known as *orientation*. In plans or maps of small areas, this involves recognizing features on the map and linking them to their real equivalents in the environment; the orientation of maps of more extensive environments such as that of the county or state requires a familiarity with directions, cardinal points and the compass.
- iv. Locating positions on a map involves the use of some type of grid system or *co-ordinates* which allow positions to be described using horizontal and vertical references
- v. The construction and use of maps also involves the concepts of *scale* and *distance*. Understanding and using scale is dependent on the child's mathematical concept of ratio and his/her ability to measure accurately.

### **Relief Maps**

A relief map is a type of map, which shows the kind of landscapes or geographical features that are present in a particular place. Some of these geographical features are rivers, mountains, plateaus, lakes, valleys and plains. It depicts the surface relief of an area i.e., the height from surrounding low surfaces or it could mean the vertical distance from the sea level which is referred to as elevation or altitude. Relief maps are three-dimensional, for they show relief features such as hills, mountains, valleys or plateaus.

### **Types of relief maps**

- i. Hachure maps - It uses short lines (hachure) to indicate the direction and steepness of such slopes. As the lines are given different lengths, spacing and weights, they provide some indication of the variations and, therefore a good impression of the configuration of an area. Hachure, however, give no indication of exact height.
- ii. Shaded maps - also referred to as the 'light and shadow map' because of the lighting effects used in the maps. Light is imagined to come from one source as, say during early morning or late afternoon period and is made to strike the land. Mountainsides, hillsides and other portions supposed to be in the shadow of the light are shaded with either lines

or colour and these portions in contrast with the lighted areas create the impression of height.

- iii. Contour maps - the most useful and exact among relief maps, the contour map is so called because of the use of contour lines, which are fine or heavy parallel lines bending and curving over a land area and which in sufficient number make possible the perception of landform elevations. A contour line is an isoline (iso= equal) on a map that joins places of equal height or depth below a specific datum or reference level- usually the sea level. The contour interval between two contour lines refers to the vertical difference in elevation between two adjacent contours which is always consistent throughout a map. The spacing of contour lines indicates the degree of slope steepness. Closely spaced contour lines indicate steep slope whereas widely spaced lines indicate gradual or flat slope gradients.
- iv. Layer map/Hypsometric map builds upon the contour map. The contour intervals are grouped together into bigger intervals or 'layers' to indicate a more vivid change in elevation. Colors or hatchings (line designs) are used to distinguish one layer from another.
- v. Raised relief map – so called because the height dimension is physically indicated as a result of molding or pressing the map sheet that could be made of plastic or cardboard material. Here the topography or terrain is indicated in a visible and 'feelable' form.

### **Utility of Maps**

A map is one of the most important tools in the teaching of geography. Some of the most basic uses of maps are:

- a) To show the location of something on the earth either in a relative or absolute sense.
- b) To show sizes and shapes of earth's features.
- c) To reveal distances and directions between places and points on the earth's surface.
- d) To indicate elevation and slope.
- e) To show distribution of physical and cultural features.
- f) To visualize differences in places
- g) To allow inferences from the data presented, agricultural crops, etc.



- h) To show change - migration of people, exchange of goods and services, volume of production, spread of factories etc.

### **Atlas**

Maps are collected in books which are called Atlases. An Atlas presents detailed as well as overall maps of places, countries, and continents. Small maps of big areas help to reveal what the earth is like whereas very large maps of small areas reveal unknown or glossed-over characteristics of these areas.

Atlases have been a traditional resource in the teaching of geography and ought to be used at all levels in the school. Atlases tend to use small-scale maps which show relatively large areas of land and sea but in doing so they have to rely on a high degree of abstraction. While a large-scale map such as a 1: 1, 000 plan of the locality can show recognizable outlines of buildings and streets, an atlas map will generally represent an urban area with a single round dot.

Atlases also compress a great deal of information on a single map: for example, it is typical to find major political boundaries, natural features such as rivers and mountains, urban areas and transport links on the same map. Even where political and natural features are shown on separate maps different categories of features are indicated using various styles of type, and words are often printed in close proximity to each other. On maps of physical features the use of colour to represent altitude can add to the confusion. For example, since the child tends to equate green with fertile areas much of the Sahara can appear to be covered with luxuriant growth.

There are several factors to consider when selecting an atlas that is appropriate to the level of the learner.

- i. Detail: Look at the map art. Is there enough detail for older learners who are looking closely at the terrain and need to find less known places? Is too much detail included for the younger learners who are just learning about other nations beyond their own? Younger children can be overwhelmed by too much detail. They enjoy using brightly colored maps with basic map art. Atlases in which maps are crowded with detail should be avoided.
- ii. Map scale: Some atlases have each continent take the space of one page. This is okay as a basic map for those who are just beginning to learn about continents and about well-

known places. For advanced learners, look for atlases that use several pages to represent each continent. That way the scale of the physical maps will be big enough to show more of what places really look like. There's also more room to label more places without the maps becoming too cluttered with typed words.

- iii. Font size: Very detailed atlases may use a small font in order to fit in the many places they wish to name. Too small of font will be difficult for younger learners to read.
- iv. Type style: Notice the choice of type, as well. Some atlases use all caps to indicate capital cities while others use all caps to label countries. Capital cities can be underlined, highlighted, labeled with a star, or even with a star in a circle. Some publishers use a variety of font sizes to label cities according to their population. Once you recognize the style of the publisher it is easier to determine if this is a country labeled or the name of the city and easier to identify which city is the capital.
- v. Index. If you will be assigning a lot of labeling of outline maps or will be using the atlas to find many places for which you have no clue where they are located, a good index (gazetteer) is essential. Check out how much space is devoted to having an index. Some indexes will even provide the longitude and latitude of the places in addition to the page number and grid location on that page.
- vi. The legend or key should appear on all pages, not just in a special section at the beginning of the atlas
- vii. The inclusion of 'globe-style' maps of the world and satellite photographs (as well as other world map projections) will help the child to appreciate the link between the atlas maps and the globe

### **Globe**

A globe is a spherical representation of the earth's surface. The Globe is the nearest approximation of the earth. This is one of the essential instructional media for a geography instructor. Without its use, the instructor cannot explain the shape of the earth. The instructor can use the globe to explain about the axis of the earth, its end points - the North Pole and the South Pole, the Equator and the grid of latitude and longitude, and how the intersection of the two helps in locating any place on the earth with precision. It is with the help of the globe that one can form correct idea of location, size and shape of ocean and continents. The globe alone gives the

idea of rotation and revolution of the earth causing day and night and seasons. It also shows how the equator divides the earth into two equal hemispheres. The following issues need to be considered when choosing and using globes:

- a) Like maps, globes may show political divisions, natural features or landscape and environmental features. As with maps, children will need to be introduced to the symbols (such as lines and colours) that are used on the globe. Globes which show a limited degree of detail and allow the learner ready access to basic geographical information are essential
- b) In some cases the surface of the globe may be modeled so as to represent mountain ranges and lowland areas using relief. These can have many of the same advantages as the environmental maps.
- c) As with atlases, access to a range of globes is important. Children should not be left with the impression that the Earth is covered with the patchwork quilt of coloured areas displayed on a globe showing political demarcations. The use of globes showing natural features is important and by comparing a range of globes it should also become clear to the child that a degree of selection has been exercised in their construction.
- d) Large plastic inflatable globes are much less expensive than those made from rigid materials and are very suitable for use in infant and junior classrooms
- e) In the early years, children's appreciation of the globe as a representation of the Earth may be fostered through the use of satellite photographs. The photographs, 'globe-like' maps and globes should be examined and discussed together
- f) As places arise in discussion there should be frequent reference to the globe. Work with the atlas and globe should complement each other so that children are constantly reminded that the maps in their atlases are simply sections of the globe

## **Charts**

A chart is a combination of pictorial, graphic, numerical or written material which presents a clear visual summary. It presents visualization of non-numerical relationships and processes.

## **Types of chart**

- a) Flow chart: It is used to show organizational element and the functional relationships. E.g., calculation of local time
- b) Tree chart: These charts present the material in the form of roots, trunk, branches and leaves of a tree.
- c) Tabulation chart: Here data or information is presented in a tabular form. E.g. the various landforms can be presented in a tabular format
- d) Time chart: provides a chronological framework within which events and developments maybe recorded. They develop time sense among the learners, help them to comprehend and visualize the pageant of time and its relationships. E.g. the discoveries of various lands
- e) Pictorial char: these charts contain information in the form of diagrams, symbolic representation of things and illustrations.
- f) Flip charts: a series of charts are presented in a sequential order. Used when a single chart cannot serve the purpose.

## **Purposes of Chart**

- a) to stimulate thinking
- b) to present materials in a symbolic manner
- c) to introduce, summarise and present information
- d) to present abstract ideas in a visual form
- e) to introduce variety in the lesson

## **Sources of charts**

- a) charts can be prepared by the learners and instructor
- b) charts can be purchased
- c) charts can be procured at a very nominal cost from the following sources:
  - i. Ministry of education, Govt. of Nigeria
  - ii. Colleges of Education, etc.

### Self-Assessment Exercise (s) 3

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. \_\_\_\_\_ represents all or a portion of the earth's surface, usually drawn to scale and on a plane or a flat surface. (a) calendar (b) pictures (c) map (d) charts
2. A \_\_\_\_\_ is a spherical representation of the earth's surface (a) graph (b) chart (c) map (d) globe
3. To show organizational elements and the functional relationships, use \_\_\_\_\_ (a) flow chart (b) pictorial chart (c) flip chart (d) time chart

### Pictures

Pictures and photographs are indispensable tools for illustrating Geographical facts. A picture is a painting, drawing or sketch of something. Many Geographical features can be illustrated through pictures. A photograph is a type of picture obtained by using a camera and a light sensitive material i.e., the film. Pictures and photographs used in geography should be:

- i. accurately and neatly drawn
- ii. attractive and natural
- iii. designed in such a way that there is scope for questioning the learners on the basis of their observations

### The Significance of pictures and photographs in the teaching of Geography

- i. Pictures and photographs make the study of Geography real. Pictures and photographs bring reality to the learners.
- ii. Skills of observation, analysis and interpretation are developed in the learners.
- iii. When a variety of pictures and photographs are used they attract and sustain the learners' attention.
- iv. Pictures and photographs illustrate that which is unfamiliar to learners. E.g. a picture/ photograph of a V-shaped valley

### Types of Pictures and Photographs

For the purpose of teaching Geography, pictures and photographs can be divided into three categories:

- i. Pictures and photographs viewed in groups - The photographs show the same features for all groups. If the features are different, then the groups can exchange the photographs. - This is done when the pictures/photographs are not adequate for every member in the class.
- ii. Pictures and Photographs viewed by the whole class - They are large pictures or those projected. - Questions about the pictures/photographs are centrally set. - The instructor questions learners on the basis of the pictures.
- iii. Pictures and Photographs viewed by individuals - These pictures/photographs may be found in textbooks - Learners view photographs individually - Viewing may also be done in pairs if the books are few.

### **Suggestions for using pictures effectively**

Selecting a good picture and preparing it for class work are useless gestures unless the picture is utilized effectively. Some suggestions:

- i. Introduce the picture – e.g., this is a picture/photograph of Mt. Everest.
- ii. Learners should be directed to the most significant feature in the photograph. The learners should make a list of features observed in the photographs.
- iii. Provide learners with sufficient time to comprehend the picture
- iv. Learners should be asked to describe and explain the features on photographs. - The pattern and distribution of features on photographs should be observed. - For maps, terms such as: Background, left background, mid background, right background etc should be used.
- v. Learners should be encouraged to examine relationships among phenomena and guided to infer on the basis of observation.

### **Limitations of Using Pictures and Photographs in Teaching Geography**

- a) Some sensations may not be shown on photographs e.g., cold, heat and smell unless through the imagination of the instructor and learners.
- b) Pictures and photographs present part of the information. Learners need field study to some places to see the phenomena on photographs practically.

- c) Pictures and photographs show objects as they appear at a given time. However, both physical and human phenomena change over time.

### **Important sources of pictures**

- a) Magazines; Educational magazines, geographical magazines, national geographic magazines
- b) Official publications; publications of govt. offices, meteorological and weather reports
- c) Newspapers and periodicals
- d) Advertising brochures issued by railways, shipping companies, airlines, travel agents, etc.
- e) Old books and magazines
- f) Postage stamps

### **Slides**

These are single frames of 35mm photographic film mounted in cardboard, plastic or metal binders, often between twin sheets of glass. They are one of the most useful methods of displaying photographic or graphic images to a class, small group or individual learner using suitable front/back-projector or viewer - either singly or in linked sequences.

### **How**

- a) The teacher should always be on the lookout for slide kits appropriate to the subject matter of the class
- b) Once the teacher has decided to use slides, they must be ordered or made well in advance.
- c) Once the teacher has the slides they must be previewed. The instructor should evaluate the slides on the basis of the following criteria:
  - i. Does each slide contribute to a unique learning experience?
  - ii. Does each slide give visual emphasis to appropriate objects, events and people?
  - iii. Do any of the slides depict bias of any kind?
  - iv. Are the images in the slides stereotyped?
  - v. Are the images clear and recognizable or are they congested with too much detail?

- vi. Once the slides have been selected they should be locked into the slide projector. The loaded projector should be tested to ensure that the slides are in the desired order and that they are placed correctly. The projector must be setup before the class starts. Introduce the slide presentation.
- d) Show the slides. Do not rush through them. Discuss each slide and do not proceed till every student is satisfied with the discussion and all queries have been clarified.
- e) At the end of the presentation summarise through discussion or debates the slide presentation as a whole.

### **Advantages of Slides**

- a) Slides help in lesson development or review
- b) Slides attract the attention of the students and arouse interest in the subject. It enables the learner to associate the matter to be learnt with the pictures. E.g. a valley
- c) For greater efficiency and effectiveness ought to be combined with narration.
- d) Slides help to reproduce visual images which take longer time or are difficult to be drawn on the chalkboard.
- e) Complete darkening of the room is not necessary hence learners can jot down the important points as they are explained with the help of slides.
- f) Slides if presented in a sequence are effective in the teaching of concepts.

### **Limitations**

- a) Slides are easily damageable. They have to be stored in a dry, cool and dark place
- b) Slides only have visual impact.

### **The effective use of slides necessitates the following:**

- a) The teacher must know how to operate the projector
- b) The teacher ought to be fully conversant with the contents of the slide and its educational potential.
- c) Limit the display to a few slides at a time.



## **Overhead Projectors**

The overhead projector is one of the most useful training aids. Its primary function is to project still images (either teacher, student or commercially made) onto a screen or a flat vertical surface like a wall. The image to be projected on the wall is drawn or transferred on a standard sized (20 cm x 30 cm) overhead projector transparency (a kind of clear plastic paper). The transparency is placed on the OHP surface and after focusing, the clear image is magnified and projected on the screen/wall. The overhead projector can be used for presentation to a group of any size.

### **Using the Overhead Projector**

- a) Make sure the projector is positioned such that everyone can see Focus correctly
- b) Use masking technique: cover part of the transparency so that only the material you are discussing is visible
- c) The overhead projector is probably the most flexible of the aids available to the instructor. Used correctly, it will enhance learning by making presentations more interesting and explanations clearer

### **Design of Overhead Transparencies**

- a) Keep them simple
- b) Include only essentials
- c) Make sure lettering is of sufficient height (>5 mm)
- d) Use colour on colourless film or contrasting colours on coloured film
- e) Do not clutter (no more than seven principle points to a transparency)
- f) Illustrations can be useful

### **Significance**

- a) An enlarged image can be obtained with quite a less projection distance. Hence it is suitable for a large class.
- b) The image is projected over the shoulder of the instructor; hence the instructor can face the class at all times and maintain eye contact with the learners.
- c) It saves time since the transparencies are made beforehand.

- d) Transparencies can be made attractive through the use of colours.
- e) The OHP is convenient, quick and easy to use.
- f) It is easy to change the transparency since they are placed on top of the glass aperture and since the surface area of the glass aperture is large a number of materials like diagrams, graphs etc. can be used at a time or individually.
- g) It allows developing a lesson by using overlays or superposition of transparencies.
- h) It allows progressive disclosures with an opaque cardboard, thereby helping the teacher to develop the lesson in sequential steps.
- i) The instructor can use OHP to support the verbal communication by writing key points on the transparency.

### **Film Strip**

These are strips of 35mm film carrying linked sequences of photographic images, each usually half the size of a standard 35mm frame (half-frame or single-frame filmstrips) but sometimes the full size (full-frame or double-frame filmstrips). They are convenient and, when purchased commercially, comparatively cheap alternative to slide sequences, and can be used in much the same way.

### **Main Features**

- a) Film strips are relatively inexpensive
- b) They are easily used
- c) They facilitate study of a topic one step at a time
- d) All learners/trainees get the same visuals
- e) Each frame can be studied and discussed during the screening
- f) It can be used in conjunction with a tape-recorder (tape/slide sequence)

### **Suggestions**

- a) Decide when would be the most suitable time to show the film strip.
- b) Topical filmstrips should be closely linked to the content material being studied/and should not be projected in isolation.

- c) Preview the filmstrips. If the filmstrip has audio accompaniment, preview the filmstrip with and without it because sometimes it is possible that the audio is less than stimulating and monotonous.
- d) If the audio is not stimulating, then the instructor has to be the voice. In such a case decide beforehand what is to be said, develop questions to be asked for a healthy discussion.
- e) Ensure that all audio and video equipment is working properly.
- f) Prepare the class before the presentation. Show the filmstrip. Relate the content of the film strip to course content where appropriate.
- g) After the film strip is viewed, review and reflect on important aspects of the filmstrips.
- h) Use non-caption filmstrips whenever possible. With this type of filmstrip, students rely on their own ability to interpret pictures without being influenced by prepared, 'authoritative' text.
- i) Relate the content of the filmstrip to the content of the unit under study. Make references to the filmstrips the learners have watched whenever appropriate. The instructor must make the experience stimulating and exiting.

#### **Self-Assessment Exercise (s) 4**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. \_\_\_\_\_ is a painting, drawing or sketch of something. Many Geographical features can be illustrated through pictures. (a) charts (b) picture (c) map (d) graph
2. Slides are associated with \_\_\_\_\_ (a) documents (b) microsoft word (c) powerpoint (d) excel

#### **Audio**

The aids that involve the sense of hearing are called Audio aids. This category includes all the various systems whereby straightforward audio material can be played to a class, group or individual. It includes a number of extremely useful - albeit often neglected - instructional materials, some of the most important of which are described below.

## **Radio**

Educational radio broadcasts constitute an extremely useful resource for instructors. The radio enables the learner to listen to accounts of travel and exploration, documentaries and discussions by specialists on geographical problems. It has been found to be a valuable tool in teaching learners how to listen effectively. It provides them with opportunities to develop the ability to listen critically and with discrimination, a skill which they increasingly need as they go up the educational ladder. One of the significant values of the radio is that radio programmes enrich curriculum materials for learning. Often radio, broadcasts can supplement materials in textbooks, thereby giving an air of freshness and newness to the subject being studied. Radio plays an important part of the distance education system too because they provide certain closeness to reality, and people depend on it for information, entertainment, and education.

## **Role of the Teacher**

- i. Selection of the program should be done bearing in mind its relationship with classroom work. Procure and study in advance the nature and content of a radio lesson. Refer to the pamphlets issued by the AIR.
- ii. Preparation - pamphlets should be studied carefully to introduce learners to the background of the topic. Prepare suitable aids, graphics and other projected aids to clarify the main points to supplement the programme. Students should be given an outline of what to listen for and asked to take down notes.
- iii. Presentation - The radio has to be switched on at the right time. Volume has to be adjusted before the program begins. The radio should be placed in front of the whole class so that the students concentrate on the programme. Teacher ought to ensure that the learners are attending to the programme.
- iv. Follow up - The teacher should review the important points and conduct a culminating activity such as debate, discussion etc. Students may be assigned some project work or practical work based on the programme.

### **Advantages of Radio**

- i. Radio broadcasting makes it possible to listen to the lectures, talks, discussions and seminar proceedings of educational interest in which renowned authors, educationists, leading scholars may participate. Such contact is bound to broaden the outlook of the learners.
- ii. Radio broadcasting, through its planned and sequenced lessons on various topics assists the teachers in achievement of educational objectives.
- iii. Radio broadcasting is a potent source of education as it is capable of integrating education with real life experience.
- iv. As a mass media, radio broadcasting is a highly economic source of educational instruction as it can cut through barriers of distance and reach thousands of listeners at a time.
- v. Radio broadcasting can overcome the shortage of man-material resources. The number of learners and the courses of instructions are increasing rapidly, radio broadcasting can be used effectively to overcome or supplement the shortage or lack of resources as the case maybe.

### **Suggestions for the Use of Radio**

- a) Since young learners have a short attention span, radio-programme based activities is more feasible for the older learners.
- b) Teachers ought to be aware of school broadcasts and special programmes relevant to their classes
- c) The teacher could take the students on a visit to the radio station so that they are aware of the various activities preceding it and appreciates it better.

Although the programs are often difficult to incorporate into the timetable, if listened to at the time they are actually transmitted, this problem can easily be overcome by recording them for later playback. In this way the instructor can store sound texts, build up a collection, study and edit them. ‘

### **Tape Records**

Audio material recorded on open-reel tape or tape cassette constitutes one of the most useful resources at the disposal of the modern instructor or trainer, and can be used in a wide range of

instructional situations, either on its own or in conjunction with visual materials of some sort. The tape recordings have the same educational values as the radio. However, they can be used whenever the instructor chooses. The record player can be played over and over if necessary at exactly the time the materials are needed. This helps the learner to master the topic contained therein.

### **Audio-Visual Aids**

Audio visual aids are any device by means of which learning process maybe encouraged or carried on through the sense of hearing as well as sense of sight.

### **Television**

Television can be a valuable instructional aid in the teaching of social studies. Students can see and hear about the world events. The television enables the teacher to bring the current events into the classroom and if the students are encouraged to observe and analyze and generalize the television can be a valuable resource.

### **Role of the teacher**

To derive maximum benefit from the broadcast the teacher must plan each stage cautiously:

#### **A. The Preparation stage**

- i. The teacher should select the program before hand.
- ii. Procure and study in advance the related printing materials of all broadcasting stations.
- iii. Students should be given an outline of what to observe and focus upon.
- iv. The physical environment should be comfortable i.e. adequate ventilation, comfortable seating, appropriate distance to be maintained between the learner and the screen.

#### **B. The Presentation stage**

- i. The television has to be switched on at the right time.
- ii. The screen should be clearly visible to all and the volume has to be adjusted so that the students concentrate.
- iii. Proper discipline and learning environment has to be maintained throughout the telecast of the programme

### **C. The Follow-up stage**

- i. The teacher should review the important points and conduct a culminating activity such as debate, discussion etc.
- ii. Each student should be given an opportunity to clarify doubts and fill the missing links.
- iii. The students should be guided and given opportunity to seek practical application of things they have seen in the programme.
- iv. Students understanding of the televised subject should be conducted and the students misunderstanding or errors if any should be clarified through group discussions.

### **Advantages**

- i. Television can bring models of excellence to the students. They can view and hear about the works and talks of eminent educationists, leading scholars may participate. Such contact is bound to motivate the students to achieve and excel.
- ii. Television instructions have the potential of improving the process and products of learning as they involve thorough planning, systematic presentation and integration of a wide range of audio visual material and appliances.
- iii. Television programs are helpful in upgrading the curriculum and enriching the educational program easily and economically. It helps in saving the time of the teachers and students.
- iv. Television as a mass media is a highly economic source of educational instruction as it can cut through barriers of distance and reach thousands of audience at a time.
- v. Televised programs can overcome the problems of shortage of teachers, classrooms, audio visual aids and other resources in education.
- vi. Television instructions may bring greater equality of opportunities for all learners. The learners from remote rural or under privileged areas maybe equally benefitted by the programmes.
- vii. Television as an instructional media may help in making the school a center for community welfare and education.

Educational television broadcasts like educational radio broadcasts constitute an extremely useful free resource for instructors and trainers. Like the radio, they are not usually transmitted at

convenient times, but this limitation can be easily overcome by recording the programs. Such recording may require the payment of a license fee.

## **Film Projectors**

The educational film related to various topics from the curriculum are usually available in 16mm or 35 mm sizes and can be shown through a 16mm or 35 mm film projector. Films represent an effective instructional device which influences the auditory as well as visual sense of the learners. In their own display, they resemble the televised programs. However the main difference between these two media lies in the following aspects;

- i. It is very simple for a teacher to show the televised program to the students whereas for using films the teacher has to look for:
  - a) The availability of a suitable film
  - b) Availability of a suitable projector and
  - c) The knowhow of operating the motion picture appliance
- ii. The televised programs are not available before their actual telecasting whereas the films are available hence the teacher can evaluate the educational benefits beforehand.
- iii. The television programs cannot be halted midway whereas in case of films the teacher can stop it midway, rewind if essential go back to a point overlooked by the learners. This enhances the educational value of films.
- iv. Films allow continuity in the presentation of ideas or concepts as the teacher can select from the wide range of educational films available to them as and when required which is not possible in case of television programs.

## **Role of the teacher**

### **A. The preparation Stage**

The teacher should;

- a) Have the knowledge of the source from where the educational films related to his subject maybe borrowed.
- b) Know how to operate the appliance
- c) Know the contents of the film beforehand



- d) Prepare the students educationally as well as psychologically to derive maximum benefits from the film
- e) Secure proper control over the physical environment and learning situation, the lighting, ventilation and seating arrangements.
- f) Ensure that the projector is functioning

## **B. The presentation stage**

The teacher should;

- a) Present the film sequentially and drawing the students attention to all the important points of the film
- b) Ensure active participation by the students by posing questions to them, inviting questions and conducting discussions
- c) Ask students to note important points, reactions and doubts, tentative conclusions etc. for later inquiry/discussion.
- d) Demonstrate the film or parts of it again if need be for more clarity and the students maybe guided to gain more from the experience.

## **C. The follow up stage**

- a) The films should be evaluated in terms of learning objectives and outcomes
- b) Students should be encouraged to express their ideas, views and opinions under the supervision of the teacher.

## **Advantages of Using Film Projector**

- a) Good films can be used as the sole means of imparting certain factual information and developing performance skills.
- b) Learners can change or develop attitude and opinions as a result of viewing films.
- c) Learners can be motivated to learn more from the viewing by instructing them before hand as to what they are expected to do after watching the film.

## **Self-Assessment Exercise (s) 5**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. Good films can be used as the sole means of imparting certain factual information and developing performance \_\_\_\_ (a) personality (b) attitude (c) performance (d) skills
2. Television as a mass media is a highly economic source of educational \_\_\_\_ (a) instruction (b) environment (c) performance (d) general aims
3. Which type of teaching method can you classify television? (a) audio (b) visual (c) discussion (d) dramatization



## 2.6 Summary

In this unit, we have discussed instructional aids and the various instructional materials to be adopted in geography teaching. We have identified different instructional materials such as guidebooks, textbooks, maps, globes, tape records, TV, films and projectors, among others.



## 2.7 References/Further Readings/Web Resources

Dhand, H. (1990). Techniques of Teaching, Anish Publishing House, New Delhi

Mangal & Mangal, ( 2012). Essentials of Educational Technology,, PNI Private Limited, New Delhi

Rao, Usha (2012). Educational Technology, Himalaya Publishing House, Delhi.

Ehiametalor E.T (1985). Classroom management, Guide to Evaluation and methods Evans Bro Nig. Ltd.



## 2.8 Possible Answers to SAEs

Answers to SAEs 1

1. True
2. False
3. False

**Answers to SAEs 2**

True

True.

False

**Answers to SAEs 3**

1. C

2. B

3. A

**Answers to SAEs 4**

1. B

2. C

**Answers to SAEs 5**

1. D

2. A

3. B

## UNIT 3: TECHNOLOGY AND INNOVATION IN TEACHING GEOGRAPHY

### Unit Structure

- 3.1 Introduction
- 3.2 Learning Outcomes
- 3.3 Role of ICT in teaching and learning of Geography
- 3.4 Summary
- 3.5 References/Further Readings/Web Sources
- 3.6 Possible Answers to Self-Assessment Exercise(s) within the content



### 3.1 Introduction

Information and communication technology is another term for information technology, which stresses the role of unified communication. The present era is known as information age. Education system is completely depending upon the ICT. Each and every aspect related to education is linked with the ICT. ICT is now part of human life. Information and communication technology contribute to all people to access knowledge, equity in education, delivery of quality of teaching, teachers professional development and more efficient management, governance and administration. World is now connected to each and every one with the internet. World is converted into global village due to internet. Information is easily reached to people within less time due to the global internet connectivity. Internet is network which provides quick access of information. Teaching, learning and research all these three changed their pattern, format, method due to ICT. Teaching is very interesting with the help of ICT and video. Learners also learn new things with the help of modern tool like ICT. Researchers also change their research methodology, research design and research topics, because ICT play vital role in research.

Information communication technology (ICT) has been embraced by many schools that have resources to procure the equipment or infrastructure. Computer technology is influencing every area of our lives. Interest by governments in integrating ICT in learning and investment in software and hardware puts pressure on teachers to find out valid and effective ways of using

computers in the classroom. This is because of the fascination that brought out by the technology to the individuals and groups. Manufacturers and experts in ICT have been innovative. They have come up with different applications and software to enhance teaching and learning. It is believed that computer technology will only be as effective as the teacher using it. The point of emphasis is that it is what the teacher plans and does with the technology that matters and not its mere availability.



### 3.2 Learning Outcomes

By the end of this lesson, you should be able to:

1. Explain ICT
2. Discuss the role of ICT in teaching and learning of Geography
3. Analyse ICT tools that are used in teaching and learning of Geography



### 3.3 Role of ICT in Teaching and Learning of Geography

#### *What are the roles of ICT in teaching and learning Geography?*

ICT is the soul of education system. Education system is changed due to use of ICT in all aspects. Without support of ICT, to acquire knowledge is very difficult. There are many tools in ICT which is useful for teaching and learning in geography. It includes Google, yahoo, Bing, Map, YouTube, Play store, Apps, Google translate, Google earth etc.

- i. **Search engine:** Search engine is software system that is designed to search information on the World Wide Web. There are many search engines available on the web. It includes Google, Yahoo, and Bing etc. Anyone can search information in Google; it gives acute information with all related links. Wikipedia gives authentic information. The content in geography shows with images, pictures, diagrams, maps and video. Google provides teachers and students with immediate access to up to date data, topical, geographical information. For research point of view Google provide us to present and past research thrust topic in geography. It is helpful for researcher. Researcher can get titles, thesis and references through websites. It is also useful for teacher and learners. Students also learn online courses, diploma through the websites. Teachers should therefore be able to guide students on how to search for information from the aforementioned sources.

- ii. **You tube:** You tube is an American video sharing website. It is free to all viewers. It has a large collection of videos. It helps all teachers, learners and researchers to understand the geographical concepts. So many educational video explain geographical concepts like cycle of erosion, continental drift theory etc. with the help of these animated video learners can easily understand the concept. There are many videos that deal with a particular content with various views. All learners can't study all thing in school, colleges and in books, but through the You tube we learn what we don't know. Students should therefore be guided appropriately on how to use You tube to study geography.
- iii. **Google image:** Google images are the most comprehensive image search on the web. It is very useful to all the learners. In the books there are limited images, but students with the help of teachers can search images on the web. It is very helpful for understanding concepts in geography. Geographical study is combination of images, maps and diagrams. All these are available on the web. We can search various images, diagrams about one content. To study about one concept with various views help to extend our knowledge. Without the images and diagrams, geographical study can't be understood very well. Geographical knowledge is not limited; it included new concepts and theories. Students can easily understand this new knowledge through the images.
- iv. **Google Map:** Google Maps is a web mapping service developed by Google. It offers satellite imagery, street maps, 360° panoramic views of streets, real-time traffic conditions, and route planning for traveling by foot, car, bicycle, or public transportation. Map is the soul of geographical study, without map regional geographical study is not possible. To study world geography and regional geography maps are essential. Geographical books and atlas has limited maps. To study at micro level to global level geography Google maps provide exact location and topography which is helpful for deep study.
- v. **Google earth:** Google earth is a computer programme that renders a 3D representation of earth based on satellite imagery. The programme maps the earth by superimposing satellite images, aerial photography and GIS data onto 3D global, allowing users to see cities and landscapes from various angles. Google earth provide satellite image of any part of the world. One can study to remote places sitting at home. Google earth can be

used to create maps and imagery to prepare ppt. Google earth and Google image are very helpful for village survey, geographical spot observation and study tour.

- vi. **Google Translate:** Google translate is a tool to translate words instantly in over 100 languages. It is useful for learners, teachers and researchers. Reference books are in various languages to understand other languages Google translate help to understand our own languages.
- vii. **Geographical Apps:** Nowadays android based smart phones are very common. All the software programmes are available on the mobile through the apps. There are many apps like geography learning quiz, Bonza national geographic, world citizen geographic quiz, maps master, Google earth, world map atlas 2015.countries of the world etc. these apps provide latest information and knowledge, students will learn interestingly through the apps.
- viii. **GIS software's:** GIS software is the modern tool of geographic study. There are many GIS and image processing software available. It includes ArcGIS, Erdas, Global Mapper, PGstreamer, Quantum GIS etc. ArcGIS provide contextual tools for mapping and spatial reasoning. It explores data and share location based insights. These GIS software is very useful for researcher to study geographical problems with the help of satellite imagery to study regional and particular geography of any area or city. Land use and land transformation study is very easy through the GIS software. Nowadays, traditional research in geography is changed. Modern research acquires the place of traditional research due to the technological revolution and use of GIS and Remote Sensing.

ArcGIS creates deeper understanding, allowing to quickly observing where things are happening and how information is connected. Presently most of the geographical research is based on satellite imagery. Maps created by GIS are very accurate. It gives quickly and rational maps. Micro level to regional level study is possible with the help of GIS and Remote Sensing. GIS is very useful tool in human geography research. Nowadays, research in Urban and settlement geography is mainly studied by GIS. It includes urban sprawl, fringe, settlement pattern etc. Teachers also use GIS and Remote Sensing for student to teach contour generation, image processing, digital elevation model etc. It is beneficial to learners for future study.

### Self-Assessment Exercise (s) 1

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. GIS software is a modern tool of geographic study. **True/False**
2. Search engine is a software system that is use to former documents. **True/False**
3. Google maps is a web mapping service developed by Google to delete incorrect words **True/False**



### 3.4 Summary

This unit, you have learnt about ICT and its contribution to the teaching and learning of Geography. Some ICT tools which are found to be very relevant in Geography teaching include the search engines, You tube, Google image/earth/translate/map as well as Remote Sensing and GIS software, among others.



### 3.5 References/Further Readings/Web Sources

Hamiti M, Reka B, Imeri F. (2015). The Impact of Computer Components in Enhancing the Quality of Teaching and Learning Process in Universities. *Procedia Social Behavioral Science*, 191(1), 2422- 2426.

Hinostroza J.E., Labbé, C., Brun, M., Matamala, C. (2011). Teaching and learning activities in Chilean classrooms: Is ICT making a difference? *Computers Education*, 57(1), 1358 - 1367.

Trepule E, Tereseviciene M, Rutkiene A. (2015). Didactic Approach of Introducing Technology Enhanced Learning (TEL) Curriculum in Higher Education. *Procedia Social Behavioral Science*, 191 (1), 848-852.



### 3.6 Possible Answers to SAEs

1. True
2. False
3. False



## **MODULE 3: CO-CURRICULAR ACTIVITIES AND TEACHING OF GEOGRAPHY**

Unit 1 Co-curricular activities and teaching of Geography

Unit 2 Evaluation in Geography

### **UNIT 1 CO-CURRICULAR ACTIVITIES AND TEACHING GEOGRAPHY**

#### **Unit Structure**

- 1.1 Introduction
- 1.2 Learning Outcomes
- 1.3 Meaning of co-curricular activities
  - 1.3.1 Excursions and teaching Geography
  - 1.3.2 Field Trips and teaching Geography
  - 1.3.3 Museum and teaching Geography
  - 1.3.4 Exhibition and teaching Geography
- 1.4 Summary
- 1.5 References/Further Readings/Web Sources
- 1.6 Possible Answers to Self-Assessment Exercise(s) in the content



#### **1.1 Introduction**

You know that education aims at all round development of the child. The aims can be fulfilled through teaching and training. Therefore, only curricular activities cannot fulfill the aim of education. The cognitive aspect can develop the psychomotor and affective aspects of the individual. It is co-curricular and extracurricular activities which help you to bring all round development of the individual. In this unit we will read how co-curricular activities have different values and through it one can develop in totality.



## 1.2 Learning Outcomes

By the end of this lesson, you should be able to:

1. Analyse co-curricular activities
2. Explain the role of Field trips and excursions in teaching geography
3. Describe the role of museum and Exhibition in teaching Geography
4. Demonstrate the procedures of evaluation

\



## 1.3 Meaning of Co-Curricular Activities

### *What is a co-curricular activity?*

Co-curricular refers to activities, programs and learning experiences that complement, in some way, what students are learning in school i.e. experiences that are connected to or mirror the academic curriculum. It is an extension of the formal learning experiences in a course or academic programme. Previously co-curricular activities are known as extracurricular activities which are conducted on or off school premises by clubs, associations and organizations, little official recognition was given, and no credit was allowed for participation. But today, all teachers have some definite responsibility for their organization, school rooms, time, equipment and materials are provided and their relationships with regular curricular activities are regarded as vital, credit for participation is allowed and recognition is also given. In short, according to modern education thinkers, curriculum is not only teaching and learning in class-room, it also includes work in library, laboratory and workshop, participation in games and sports in playground and numerous informal contacts between teacher and pupils in these places. In these informal contacts there are varieties of activities on the curriculum of an institution. Curriculum is the aggregate of curriculum, co-curriculum and extra-curriculum activates need for and importance of co-curricular activities in teaching geography.

When we have discussed that co-curricular activities are part of curricular, the question may arise in your mind that how do these activities help in achieving the objectives of education? Why co-curricular activities are important and need of the hour? The answer to your question is that co-curricular activities are important and necessary because they have several values like:

- a) Educational Values
- b) Psychological Value
- c) Social Value
- d) Civic Value
- e) Physical development Value
- f) Recreational Value
- g) Cultural Value

Let us discuss them:

**A. Educational Value**

- i. These activities have great "educational" potential. All classroom teaching is theoretical.
- ii. Practical knowledge can be imparted through co-curricular activities.
- iii. Excursions and tours provide firsthand experience and reinforce classroom knowledge in subjects like geography and nature study etc.
- iv. Language and expression improves through debates and recitations. Teaching of geography gets vitalized by dramatization.
- v. Practical lessons in civics can be given through student self-government.
- vi. School magazines teach students the art of writing forcefully and effectively.
- vii. Celebration of functions develops organizational capacities and leadership qualities in students.
- viii. Projects provide direct learning opportunities.

**B. Psychological Value**

These activities as the name suggests meet the psychological needs of the students, mainly with reference to social demands of the pupils. They help in expressing personal behavior and provide a vehicle for creative thinking.

- i. **These Activities act as Agent for Sublimation of the Instincts:** Co-curricular activities are a means of channelizing students' instincts into healthy and fruitful channels e.g. instinct of curiosity can be fruitfully channelized by library, stamp and coin collection etc. The instinct of gregariousness can be directed through self-government, social service and other group work.
- ii. **Emotional 'Health:** A student is a bundle of innate urges or drives. It is natural for him/her to be curious, to show off, to master, to be loyal and to be sympathetic. Co-curricular activities provide valuable opportunities in which these drives may be capitalized for educational benefit. But fortunately or unfortunately, they may not come up to the required expectation e.g. some students who are backward in studies develop inferiority complex and find school life disgusting and can get emotionally unbalanced. Such activities provide a means of emotional adjustment for students.
- iii. **To increase the Interest of Students:** A student who gives his time and effort to his school is, therefore, more interested in it, because of his contributions e.g. the athlete talks about school spirit.
- iv. **Recognition of Individual Differences Co-curricular Activities:** By providing a number of co-curricular activities, we can ensure the expression of potential capacities of each individual e.g. writing, public speaking, dramatics, painting, different games and sports, organization of functions etc. which provide training in different aspects of personality of students. These activities, thus, cater to aptitude, interests and abilities of students and sometimes act as a determining factor for the choice of future vocation.

### **C. Development of Social Value**

Social cooperation is recognized as one of the important demands of citizenship. It is difficult to teach through school subjects like Languages, Mathematics or Social Sciences. By participating in group activities, students learn good manners and develop a sense of cooperation. Membership in a club, student council, dramatic cast or an athletic team requires co-operation. Students learn to appreciate the relationship of an individual to the social group. Through team activities,

students learn social cooperation. They develop group spirit, 'we' - feeling, belongingness, unity and ability to be co-operative.

#### **D. Development of Civic Value**

In group activities, students learn the value of doing one's duty. For example, students' self-government in schools provides an excellent training in exercising one's franchise and shouldering responsibilities. These activities train the students for good citizenship. Co-curricular activities offer many opportunities for the development of self-discipline. They develop in students a spirit of toleration of others' views, healthy exchange of ideas, fellow feeling and accepting victory and defeat with grace. Secondly, the school is a miniature society and the activities of the school should have direct relations with the activities of the society.

Qualities like initiative and leadership are not always developed in a classroom. On the playground, students get opportunities to develop leadership qualities like initiative, decision-making, judgment, tolerance etc. These qualities are required for a democratic society. Many girls and boys have little practice in controlling themselves and in directing their own affairs.

They have not developed the ability to do these things. As a result, when they are placed in settings that demand self-direction, they are lost. Co-curricular activities provide numerous situations in which students may gradually get increasing responsibilities for their own direction. The settings for developing these carry-over values must be definitely provided. A school must be a workshop in democracy.

The traits and qualities of leadership are developed in students, when they organize these activities by themselves under the guidance of teachers. Students learn to plan, organize and execute the plan that has been developed. This develops in them initiative, planning, thinking and power of independent judgment.

These activities provide excellent moral training. Through these activities are learnt the importance of obeying the law, rules and regulations, love for truth and above all, these activities develop moral consciousness by providing moral experiences. For example, a boy in charge of finances has to act honestly. On the play field, one has to show sportsman spirit.

### **E. Physical Development Value**

While games, sports and athletics directly contribute to physical development of students, other co-curricular activities also indirectly contribute to it. These activities provide a useful channel for the growth and development of the body.

### **F. Recreational Value**

Lack of ability and training in proper utilization of one's leisure time is one of the major defects in our present system of education. By providing and organizing various activities, we provide wholesome opportunities to our students, rather than to spend their spare time in undesirable activities e.g. Movies, TV, idle talk etc. Hobbies developed at the secondary school stage become lifelong habits.

### **G. Cultural Virtue**

Some co-curricular activities are of tremendous value, as they help in providing opportunities for better understanding of our cultural heritage and traditions, for example, activities like dramatics, folk songs, dance, folk music, exhibitions and celebration of various religious and social festivals provide better knowledge and understanding of our culture, foster cultural tastes and awaken cultural interests among students. Student would appreciate to learn all these though our language, religion, culture, food habits, dress etc. are different but we are one, and that we are human beings of the same universe.

Thus, co-curricular activities will help in developing national and international understanding. We can concede by saying that co-curricular activities cater to the development of a child's entire personality, draw out the latent powers of children of different temperaments, supplement academic work, develop social and civic sense. Without these activities students would be mere book-worms.

These activities are really important as they have a potential of developing the intellect of a student which is always not possible with theoretic procedures. For this co-curricular activities need to be effective so that they can give the right exposure to the mind. When effective, these

activities provide a practical hands-on approach to the students which provide similar experiences which they will face in the outside world. Such experiences go a long way in producing multi-faceted personalities which, in due course of time may bring honor to the country as well. Students have a right to a broad education. A wide range of experiences prepare students better for the future, especially in today's uncertain world. Broad education can provide better preparation for life in a society where an individual may need to change career several times in their life. Student minds aren't mature enough to ascertain what's good and what's bad for them. Their decisions may be influenced by peer pressure etc. but at the same time these activities should not be forced. Co-curricular activities need to be more refined, varied and interesting so as to be widely accepted and successful. A successful co-curriculum builds links between the school and the wider community, bringing local enthusiasts in to work with students, and sending students out to work on community projects. Many children have talents in all sorts of different areas, and it is wrong to force them to specialize too early. A career is not the only part of an adult's life – school needs to make sure they have interests and skills that will help them in their family and leisure lives too. Through equal balancing of academic and co-curriculum, the students have the chance to exercise their rights and the opportunity to be multi-talented.

### **Self-Assessment Exercise (s) 1**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. Co-curricular activities are not part of curriculum. **True/False**
2. Does learning activities help in achieving the objectives of education?  
**True/False**
3. Social cooperation is recognized as one of the important demands of citizenship.  
**True/False**

### **Role of Co-Curricular Activities in a Student's Life**

- i. It helps to develop the all-round personality of the students to face the undaunted task and turbulent world of future. Experience and accolades gained through many of these activities help during internships and other school sponsored work programs.
- ii. The aim of curricular activities is to make the students fit for the future time and to develop a sense of competitive spirit, co-operation, leadership, diligence, punctuality, and team-spirit as well as to provide a backdrop for the development of their creative talents. Whenever someone is chosen as a head boy or is given leadership in certain matters, it boosts self-confidence and sense of achievement.
- iii. Extra activities for school students are a means to enhance social interaction, leadership, healthy recreation, self-discipline and self-confidence. Competitions may also be organized to create a competitive environment and groups with an objective to work towards a better society and the world as well.
- iv. In today's competitive world, participants makes a lot of difference during admission into various courses. Such students are given preference as compared to non participants. These may make a difference when the students are considered for the most popular courses.
- v. When the students in their early teens are given some responsibilities like giving first aid they acquire a sense of responsibility.
- vi. Some tasks require precision, management and organization and such activities provide training to prepare students for the outside world.
- vii. In polytechnics and universities, certificates of such activities are given weight age by potential employers.
- viii. Students in the form of Alumni etc., act as counselors or guides in their respective institutions in such matters. They impart what they have learned to their juniors. Whilst doing so they are imparting knowledge and helping in the development of a productive society.
- ix. Such activities divert student's attention from harmful activities like drugs, crime etc. It channelizes their energies in fruitful activities.
- x. Physical activities like running, football etc. help not only in the physical fitness they also refresh the burdened mind.



- xi. Success in organizations requires more than high intellect. Thus, college recruiters commonly examine job candidates' extracurricular activities in search of well-rounded, emotionally intelligent, and interpersonally skilled students. Intuitively, extracurricular activities are like valuable student experiences.

### **1.3.1 Organization of Field Trip and Excursion**

A field trip or excursion known as school trip is a journey by a group of people to place away from their normal environment. The purpose of the trip is usually observation for education and to provide students with experience outside their everyday activities. In geography, teaching trips can be taken to visit a geographical feature of the landscape. Field trips are generally domestic, but nowadays, most school systems have formalized fieldtrips procedures that consider the entire trip from estimation, approval and scheduling through planning the actual trip and post trip activities. Academic fieldtrips can be important and enjoyable element of education. They often significantly enhance the content of a course by providing a type of information hard to convey in the classroom.

In organizing a field trip, the instructor should follow some guidelines like:

- a) All required academic fieldtrips must be identified by the teachers as such in the course syllabus.
- b) Advance instruction to the students regarding the trip should be given
- c) The teacher or some responsible official should accompany with the students.
- d) If possible prior visit may be done by the teacher or officials to plan effectively.
- e) Guideline to students to follow the rules and instructions during the trip should be given.
- f) Parent meetings should be organized and permission must be taken in written form.
- g) Transportation by school bus or govt. vehicle should be used.

### **1.3.2 Excursions and Teaching Geography**

An excursion arranged for the study of a part of the country on the spot is the most useful method of teaching Geography. Excursions present the object in its natural colours. It is the best way to study 2eographical fact as they exist. These excursions serve a very useful purpose in the formation of character of a pupil so that he may not be a misfit in society. A wise teacher can

arrange a good number of opportunities of paying visits, at least, to local places if not too distant areas. When pupils are taken out they may be encouraged to observe carefully the physical phenomena and the social, economic and industrial conditions. The easiest and the most important thing to observe is the natural objects like landscapes, land formations and different types of soils. A journey to a hilly area, to a river or to the sea-side may explain term such as erosion, deposition, shells, grade and V-shaped valleys, etc. Similarly, a visit to a zoo may explain the habitation of plants and animals and the natural conditions required for them.

Thus, excursions must form an essential part of Geography teaching programme from the very beginning. In the words of E.A. Macnee, “It is essential that the foundations of Geographical knowledge shall be laid in the field. No amount of reading from book can make up for a practical knowledge gained by looking at the earth which the child is studying. It follows that from the very early stages, expeditions should form part of the geography.”

### **Types of Excursions**

Excursions for the students of Geography are of three types, namely:

- i. Local trips of the duration of one or two lesson period.
- ii. Community or neighborhood trips of half or full day’s duration,
- iii. Tours to different places or parts of the country of several days’ duration.

#### **A. Local Trips**

Structure of primary and lower middle class may be taken to a convenient place in the village or the city, near the school, for one or few lesson periods. On these occasions, the students will study their surroundings and get first hand information about the different types of animals, vehicles, grain and vegetables grown in the vicinity of the school. Based on this information, the teacher can give an instructive lesson on local routes, markets and crops etc. Through such trips, the students learn to discover meanings, hidden in familiar things. The main purpose is neither recreation nor teaching about the locality of the school. Their main aim is to give reality to teaching of Geography and to make difficult ideas simple by referring to concrete known facts.

## **B. Community or Neighborhood Trips**

Such trips may occupy a half or a full day and, therefore, these may be arranged either on Saturday afternoon or on Sunday or on some other holiday. The excursion may include a visit to a hilly area, to a river or sea side, to a factory, textile mills, port or mine or to a farm, museum or zoo or to an irrigation or hydro-electric project - not very far away from the school. On such occasions students may be encouraged to study and investigate things themselves and to ask as many questions as they may desire, to remove their doubts. They will get firsthand knowledge about the nature of the soil, climate, different seasons, means of irrigation and transports, production, imports, exports as well as Geographical terms as erosion, deposition, valleys, islands etc. Besides useful knowledge, such trips also provide recreation and interest. But such trips must be well planned and thought out before hand, by the teacher if he wants to be successful in his real aim.

## **C. Tour or Excursions**

For secondary and higher secondary class students, Geography excursions, lasting for several days, may be arranged profitably. But adequate preparations must be made both by the teacher and the students for such excursions. These require careful planning, organization and execution for their success. It is advisable that the teacher himself pays a visit to that spot or place before hand and makes a list of the objects to be observed by the students. He could also make necessary arrangements for lodging, boarding and conveyance at the place to be visited, sufficiently in advance. In a big country like Nigeria, Geography tours can be arranged to hilly areas in the Mambilla plateau, the confluence of Niger and Benue rivers, to the Yankari game reserve, to the Kusugu well of Daura and to various manufacturing centers. In such long journeys, the students will come across different types of people, with different occupations and habits of diet and dress, different landscape, soil, climate, production, vegetation etc.

While on excursion, the students should be encouraged to takedown notes of what they have observed. For this purpose, students may be divided into four or five groups. Each group may be asked to describe a particular subject of Geographical environment and note it down. Then on their return to school, these notes may be read out before the whole class and exchanged. This

will enable students to acquire knowledge independently and in a more scientific manner, of course, under the guidance of the geography teacher.

The student should also be encouraged to make collections while on excursions. Such collections may be kept in the school Geography Museum for the benefit of all students. Maps and models of things and places observed can also be prepared by students after the tour.

### **Follow-up Programme**

After the excursion is over, a brief discussion should take place in the classroom on its reaction. The students should be encouraged to express their views freely and frankly about the utility of the tour. The observations, recorded on the spot, should be read out and analyzed and re-written in the form of a short report. Maps, models, pictures, specimens of rocks and minerals etc., prepared or collected during the tour, should be displayed in the class-room. Definite planning, preparation, execution, follows up and evaluations are essential for achieving the full value and objectives of Geographical tours, and excursions.

### **Self-Assessment Exercise (s) 2**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. Extra activities for school students enhance social interaction, leadership, healthy recreation, self-discipline, and self-confidence. **True/False**
2. Dose curricular activities make students fit and develop their sense of competitive spirit? **True/False**
3. The purpose of field trips is usually observation and socialization. **True/False**

### **Organization of Geography Excursion**

An excursion for its desirable outcomes needs to be organized in a very systematic and popular ways. A Geography teacher, while organizing it takes care of the following things:

- a) **Choice of the place of excursion:** In planning for excursion, the topmost priority should be given to the wise decision about the place of excursion. Generally, it should be based upon its relevance to the subject and topic being currently dealt with in the classroom. The derivation of relevant educational benefits should be given prime consideration for selecting the place of excursion. However, the other things like the feasibility in terms of

expenses, seasons, time available and convenience in arranging excursion should be given due weight age for making such choice.

- b) **Preparation of excursion:** After making the choice of the place the teacher must take care of the things related with the preparation and planning.
- i. Teacher must obtain the due permission of the authorities of the institution and the willingness of the students and their parents.
  - ii. In case the place is far away, proper arrangements of transports must be made quite in advance. If students' concession is available for the journey, it should also be procured well in time.
  - iii. Permission from proper authorities to visit the desired place must be obtained beforehand. Similarly, correspondence and confirmation about the reservation of rooms in hotels, rest houses or guest houses etc., must also be made well-in time to avoid inconvenience.
  - iv. What is to be collected from the students and shared by the institution for meeting out the expenses towards excursion should be collected by the teacher well in time.
  - v. The aims and purposes of excursions should be made clear to the students. They should also be given complete knowledge of the planned schedule much before starting to their excursion.
  - vi. Students must be instructed to carry on all the necessary articles for individuals needs.
  - vii. The students should be given full instructions before hand for maintaining discipline and adopting necessary precautions.

### **The Necessary Precautions during Excursion**

During excursion the teacher should remain quite alert and active for its successful execution:

- a) The teacher should try to keep his students under control and in perfect discipline.
- b) As far as possible, the planned schedule of the visit to different places during excursion must not be unnecessarily disturbed. It remains always fruitful to maintain punctuality and adhere strictly to set programmes for avoiding unnecessary inconveniences.

- c) The teacher should take all precaution about the loading and boarding facilities as well as for the health of all members of the excursion team.
- d) The students should be made to listen carefully to the guide of the place to collect and note down the full information related with the objects
- e) During excision, the teacher's guidance and help should be readily available to the pupils for solving their difficulties and answering the relevant scientific queries.
- f) The teacher should see that everyone from the team as well as what is being carried or collected from the excursion remain safe and intact.

### **The Work after Excursion**

A follow up work in terms of the following points needs to be done by the teacher at last stage:

- a) The experience gained by each students and difficulties encountered needed to be discussed in the group. The quarries and doubts of the students should be properly satisfied at this stage.
- b) The articles collected for the school museum should be deposited after labeling and classifying them under proper categories.
- c) The students should be asked to write some appropriate essays concerning their experiences. Writings may be published in the magazine or science club bulletin

### **1.3.3 Field Trips and Teaching Geography**

- i. **Local Trips:** The local trips will be valuable to the students of primary and junior secondary classes. The students should be led to explore and study their surrounding for first hand information with regards to various crops grown, types of animals found in the local markets or factories, river or lakes. Local trips are usually taken when the teacher has got two or three vacant periods at his disposal.
- ii. **Community Trips:** These trips take a longer period of time than local trips - may take the whole day or two days and involve more extensive preparation by the pupils. Community trips may include important industries, natural resources, mineral resources, museums, zoo, irrigational projects and other means of irrigation which are located not very far from the institution. The children should be taken to the centers of industry and commerce. Geography includes social and economic factors. In the workshops and mills,

pupils will see how raw material is turned into finished products and they will also be curious to know where the raw material comes from where the finished products are consumed. From commercial centers whether those are village shops or town markets, they will learn how commercial transactions are going on. They will learn what Import and Export means. The study of agriculture and the facts connected with this pursuit is also possible only through excursions. Children can be taught the nature of soil, different seasons, the means of irrigation and the influence of pests in this way. For the study of concrete Geographical facts, the students should tour the countryside as often as possible.

- iii. **Tours:** Tours to various party of the country may take several days and also may prove very expensive. They require definite planning, proper organization and careful supervision and execution of the tour to a successful end. Nigeria is one of the biggest countries in Africa. For the study of various physical features, the teacher should organize long tours. The scenery of important features like the Zuma rock attracts tourists, the Kainji dam and lake, the Kurra falls etc., attract tourists from different parts of the country but also from the different parts of the world.

The above mentioned things are worth seeing and the students of Geography must organize tours in these parts of the country. This type of excursion requires a great deal of preparation on the part of the teacher of Geography but certainly will prove more rewarding in its results.

In these long tours, children come across different people. They get opportunity to study them. Geography does not deal with the stage alone. It is a study of the world stage with reference to the actors and the actions which can best be studied while playing the role of life. In fact the study of Geography cannot be complete without a long travel.

Whenever students are taken off the school, only the important details should be attended. Adequate planning will help the teacher to forecast some of the problems which are likely to crop up with regards to long tour. The primary objective of the tour should be the attainment of educative experience. Good planning will ensure that the trip will be both an enjoyable as well as full of educational experience. The following suggestions will be helpful in achieving the objective of a tour:

- a) Clearly define the purpose of the tour and be sure that the students are fully aware of the tour. This should provide opportunities for gaining learning experience which are not possible in the class room.
- b) Having chosen the place of visit, the teacher should make necessary arrangements for lodging and means of conveyance available there. All the relevant maps showing the places worth visiting should be obtained from appropriate government organisation. If possible one inch ordnance survey maps of these places should be made available to the student.
- c) Before undertaking the tour, sufficient time should be devoted to studying the ordnance maps and brief notes should be taken as to what to look for in those areas. The contours will suggest the landform and from these the student should try to identify broad physical features such as Hills, river valleys, an alluvial plain, meanders or Ox bow lakes. In the study of these maps, the students should apply the principles of physical Geography they have learnt, concerning earth sculpture particularly in connection with the work of streams or glaciers or wind.
- d) Before starting on a tour, the teacher should obtain a written permission from each parent for his/her child to go on tour. While this permission does not altogether absolve the teacher of responsibility in the event of some mishap but it does indicate that the child has not been forced to go on a tour and the parents are in the know that their children are going on a tour.
- e) Reviewing the trip, brief discussions of the trip should be within two or three days after it has taken place. During the discussion, the children should be asked to give their reactions about their tour. Brief notes should be written up. Maps of those areas should be drawn. Model should be prepared. Pictures and specimens of various rocks, and minerals collected during the tour should be displayed in the room. If possible, the teacher of Geography should provide maps of those areas which the children have visited and compare the features in the maps. This will create interest in the field with symbols as shown in the maps. This will create interest in the study of maps.
- f) Field trips and long tour provide an excellent means for obtaining first hand Information and for studying various aspects of Geography namely, physical,



human, historical and economic Geography of the areas visited. The amount and variety of the experience that may be productive for group learning will vary with each area. Definite planning study, discussion, preparation, follows up and evaluation are essential if the full value and objectives of the field trip are to be achieved. The excursion method of teaching Geography fosters such social virtues as co-operation, give and take and group feeling.

- g) A substitute of the actual journey is to arrange talks of that person who have been to various lands. In these days there is no dearth of teachers who have visited foreign lands and they should be invited to give a brief Geographical account of the country or countries they have visited. The student should be encouraged to ask questions and remove their doubts if any about that country. There are embassies of foreign countries in Abuja (Federal Capital Territory) and the cultural attaches are pleased to send literature pertaining to their countries. To read books on travel and to listen to the account of various countries from the foreigners is a substitute of the actual journey.

#### **Advantages of Excursion Method**

- a) **Provide direct learning experiences:** In travels and Excursions, the students get opportunity of seeing and observing things by themselves. So, they get direct learning and experience which cannot be gained in the class-room. Practical knowledge of Geography is gained by feet rather than by head. It is gained in the fields, forests, hills and factories or in the fields, outside the class-room.
- b) **Satisfies natural urges:** Psychology tells us that young-children have certain natural urges, interests, drives and tendencies. One of these urges is curiosity which is the mother of all knowledge. Excursions provide opportunities for the students to satisfy their natural urges, interests, instincts and tendencies in real and natural setting. Excursions also satisfy the students' urges of gregariousness assertion, construction and adventure.
- c) **Gives practical social training:** While on excursion, the students get practical training in co-operation and working together. They develop some fine traits of character like leadership, self-help, team spirit, group feeling, tolerance and obedience to teachers and leaders.

- d) **Broadens outlook:** In tour, students go to different parts of the country with different climatic conditions and meet people who speak different languages, wear different types of clothes and different kind of food. They find an amazing diversity of life in different part of their vast country. All this experience broadens their outlook and they become more tolerant and large hearted than before.
- e) **Creates interest in Geography:** Excursions further learning in Geography and create genuine interest in the subject. The monotony of class-room teaching is removed. Once the students come out of the class-room, they find a change and this change is very helpful in furthering the interest of students in the subject method of Geography.

### **Demerit of Excursion Method**

The following demerits are found in this method:

- a) It is very expensive method.
- b) Curriculum cannot be completed by this method.
- c) It destroys a lot of time.
- d) Parents do not give permission easily to take their wards for excursion.

On the basis of above mentioned merits and demerits it can be said that this method has a great importance in Geography. If any problem occurs then an adept teacher can solve that problem by its experience and clearness.

### **1.3.4 Museum and Teaching Geography**

Museum is a building, place or institution devoted to the acquisition, conservation, study, exhibition, and educational interpretation of objects having scientific, historical or artistic value. It is an organization in the service of society and its development, open to the public, which researches, communicates and exhibits things and ideas for the purpose of education, study and enjoyment. According to the museum association “Museum enables people to explore collections for inspiration, learning and enjoyment. They are institutions that collect, safeguard and make accessible artifacts and specimens, which they hold in trust for society. Learning and access are supposed to be central to the purpose of all museums”.

## **Equipment of Geography Museum**

We can equip our geography room with variety of objects some of which are mentioned below:

- a) Picture, picture post cards and painting illustrating the life of the people in various parts of the world.
- b) Models of clay or clay plasticize either made by children or purchased from market exhibiting life in other lands or illustrating some geographical terms or phenomena.
- c) Locally manufactured articles such as cloth, pottery, woodwork and metalwork etc.
- d) Specimen of agricultural crops like wheat, gram peas, millet, oilseeds and fibers etc.
- e) Different kind of rocks, stones and minerals with labeling and information about the availability area.
- f) Foreign stamps, coins and pamphlets.

Objects for the museum generally should be selected which have meaning to the live of the pupil. These objects can be collected during your visits and excursions if properly planned and the work is divided among the students. The role of the teacher here is to distribute the work in such a way that the complete set of articles under a particular heading can be collected. The teacher should take care that the showcases in which these articles are placed should be 6 x 3 x 4 feet and fitted with glass-tops and sides. As far as possible care should be taken to see that no one should mishandle it and regular dusting is being done.

If the principles and rules will be strictly followed and maintained properly, then a geography museum will be a great success. It is not the concern of the geography teacher only but each and every student should also take part in showing personal interest in its maintenance and upkeep. It will flourish if a committee of management member, teachers and students will work together, once a museum has been setup it becomes a permanent feature periodical cleanliness and replacement of damaged material and accession of new materials will make the museum as a constant source of enjoyment, interest and instruction to those whom it tends to benefit.

### **1.3.5 Exhibition and Teaching Geography**

An exhibition is an organized presentation and display of a selection of items. In practice, exhibition usually occurs within museums, galleries and exhibition halls and fairs. In school also you can organize exhibition related to geography, science etc by collecting the items related to

the subject. It may be permanent or temporary. But in common use, exhibitions are considered temporary and usually scheduled to open and close on specific dates. Some exhibitions are shown in one venue while some in multiple locations and are called travelling exhibition and some are online exhibition also. Organizing exhibition also need effective event planning, management and logistics. In teaching geography, multimedia resources from the library of congress that support instruction about geography and maps can be presented through exhibition.

### **Self-Assessment Exercise (s) 3**

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. In teaching geography, exhibitions are very important to the student as they help them have firsthand information. **True/False**
2. Pictures distract students in geography class. **True/False**



### **1.4 Summary**

In this unit we have learnt:

- i. The meaning of co-curricular activities
- ii. The various co-curricular activities which aid the teaching of Geography including excursion, field trip, exhibition and visit of museums, among others.

To aid concrete learning, students must therefore be taken to places such as laboratories, library, and workshops. They must also participate in games and sports, field trips and excursions, among others. To sum it up, curriculum is not only the curricular activities like completion of syllabus, but it also includes the totality of expression of pupils inside and outside the school campus in the form of co-curricular and extracurricular activities aims at the all-round development of the students.



## 1.5 References/Further Readings/Web Resources

Mishra P. and Koehler M. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054

Okuntorifa, P.O. (1981). *A Handbook of Geography Teaching for Schools and Colleges*. Heinemann educational Books Limited.

Ololobou, T.P. (2000). Teaching High School Geography in Nigeria: A Plea for More Functional Approach, in Bello, A.L. et Al. (eds.) *Geography and Resources Management in Democratic Nigeria*. 43<sup>rd</sup> Annual Conference of The Nigerian Geography Association Held at ABU, Zaria.

Smith, E. R. (2001). From the Holiday to the Academy: implications for physical geography in higher education arising from 'popular' field-based geography in Dorset". *Journal of Geography in Higher Education*, 25 (2), 241-248.

Kent, M., David, D., Gilbertson, C.O.H. (1997). Fieldwork in geography teaching: A critical review of the literature and approaches. *Journal of Geography in Higher Education*, 21 (3), 313-332.



## 1.6 Possible Answers to SAEs

### Answers to SAEs 1

1. False
2. True
3. True

### Answers to SAEs 2

1. True
2. True
3. False

### Answers to SAEs 2

1. True
2. False

## UNIT 2: EVALUATION IN GEOGRAPHY

### Unit Structure

- 2.1 Introduction
- 2.2 Learning Outcomes
- 2.3 Concept of Evaluation
  - 2.3.1 Evaluation in Geography teaching
  - 2.3.2 Evaluation of knowledge, information and understanding
- 2.4 Summary
- 2.5 References/Further Readings/Web Sources
- 2.6 Possible Answers to Self-Assessment Exercise(s) in the conten



### 2.1 Introduction

We always expect that our children should get sound and standard education but the question that arises here is that how can we know whether the educational programme provided by the institution is sound or not? Now it is very difficult to say yes or no without judging the programme, so we have to judge the educational programme in the different aspects of education. Mainly there are three aspects. They are:

- i. Why of education? Why education is being given.
- ii. How to impart education to the students? It means the methodology or pedagogy of teaching.
- iii. What should be the content material? It means the curriculum.

So we have to judge whether the curriculum and methods of teaching are proper to fulfill the aims of education. This process of judging the attainment of objectives is known as evaluation. In this unit we will learn what is evaluation, what are the purposes of evaluation and how can we evaluate the geography teaching with various tools and techniques of evaluation.



## 2.2 Learning Outcomes

By the end of this lesson, you should be able to:

1. Explain evaluation
2. Analyse the process of evaluation
3. Describe the various tools and techniques of evaluation
4. Discuss the ways to evaluate in geography teaching



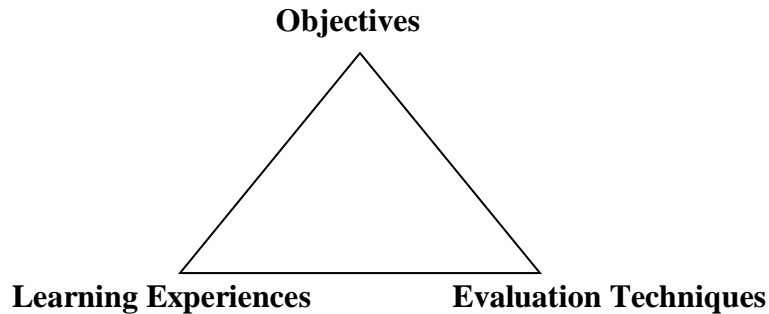
## 2.3 Concept of Evaluation

Evaluation helps us to know whether ideas have been set up by us, whether we are successful in attaining them or not? It is a process of judging the value of an object, an experience or an achievement. It is done quarterly, half yearly and annually. It is a continuous process. Some definitions will give you some idea to understand the concept of valuation.

### Definitions of Evaluation

- “Evaluation is a judgment or interpretation that one draws from the information at hand about a pupil’s work.” - Clar and star-
- “Evaluation is a continuous process, forms an integral part of total system of education and is intimately related to educational objectives. It exercises a great influence on the pupil’s study habits and teacher’s methods of instructions and thus helps not only to measure educational achievement but also to improve it.” - Kothari Commission

From the above definitions it can be concluded that evaluation is the process of determining the extent to which the objectives are attained, the effectiveness of teaching-learning experiences provided in the class-room and the manner in which the goals of education have been accomplished. It is therefore obvious that there is a good relationship between objectives, learning experiences and evaluation. This can be represented diagrammatically as follows.



### **A. Importance of Evaluation in Educational Programme**

From the meaning of evaluation, its importance is understood. It is important because:

- i. It leads to improvement of instruction
- ii. It helps in clarifying objectives
- iii. It promotes better learning.
- iv. It provides basis for guidance
- v. It leads to curriculum changes

### **B. PROCESS OF EVALUATION**

Evaluation in education is a systematic process. It follows the following steps:

- i. Formulating educational objectives
- ii. Stating the objectives in terms of behavioral changes expected among the pupil.
- iii. Providing learning experiences as per objectives
- iv. Using tools of evaluation according to the objectives and learning experiences.
- v. Arriving at results using the tools.
- vi. Interpreting the results.
- vii. Suggesting modifications in the teaching, learning process if necessary.

### **C. PURPOSES OF EVALUATION**

The purposes of evaluation are to:

- i. Understand the existing policies and practices in education.
- ii. Modify the existing class room procedures for the results.



- iii. Assess the suitability of learning experiences provided to students from time to time.
- iv. Asses the realization of objectives.
- v. Examine the factors that contribute to effective learning.
- vi. Suggest ways and means to improve the policies and practices in the system.

In the words of Benjamins Bloom “Evaluation is a system of quality control”. It can be process oriented and goal oriented on the basis of the purpose. It can be two types like:

- i. Formative evaluation which is process oriented. It gives information and feed back about different aspects of teaching learning process
- ii. Summative evaluation which is goal oriented. It focuses on the end product of a programme.

#### **D. TOOLS OF EVALUATION**

Evaluation is a continuous and compressive process that takes into consideration the educational objectives and the learning experiences provided by the system. To test the efficiency of teaching, to judge the performance of the students and to evaluate the whole process of teaching learning, we require some sort of measuring tool. It is a device or technique that facilitates the process of measuring and recording the achievement of pupils.

Questionnaire, observation schedule, checklist, inventories, interviews, diaries, objective type tests are important tools of formative evaluation whereas Annual examination like achievement test, Aptitude test, interest inventories, personality tests are used in summative evaluation. On the basis of data collection, tools may be qualitative and quantitative whereas on the basis of test, it may be standardize and teacher made test. On the basis of the objectives evaluation like knowledge, skill, attentive, interests and values tests may be oral, written and practical. As per the nature of the data again, it can be objective, subjective and prospective. All these various types of tools and techniques are used as per the objectives of the programme. For your better understanding, we can divide and keep in a tabular form like below:

#### **Tools and Techniques of Evaluation**

<b>Testing procedure</b>	<b>Self report Techniques</b>	<b>Observational Techniques</b>	<b>Projective Techniques</b>

1. Written	1. Interviews	1. Checklist completion	Sentence completion
2. Oral	2. Interest Inventory	2. Anecdotal record	2) Doll Play
3. Practical	3. Personality Inventory	3. Rating Scale	3) Story completion
4. Standardize	4. Questionnaire	4. Socio-metric Techniques	4) Ink blot perception
5. Diagnostic		5. Cumulative record	

### Self-Assessment Exercise (s) 1

<p>Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.</p> <ol style="list-style-type: none"> <li>1. Evaluation assesses only the students. <b>True/False</b></li> <li>2. Evaluation is a continuous and compressive process. <b>True/False</b></li> <li>3. A questionnaire is not a tool for evaluation. <b>True/False</b></li> </ol>
--

### 2.3.1 Evaluation in Geography Teaching

As per the general objectives of evaluation, every subject teacher wants to know how far students have made progress in his subjects and how far his teaching has been successful. Like every subject, Geography subject also has some objectives on the basis of following heads:

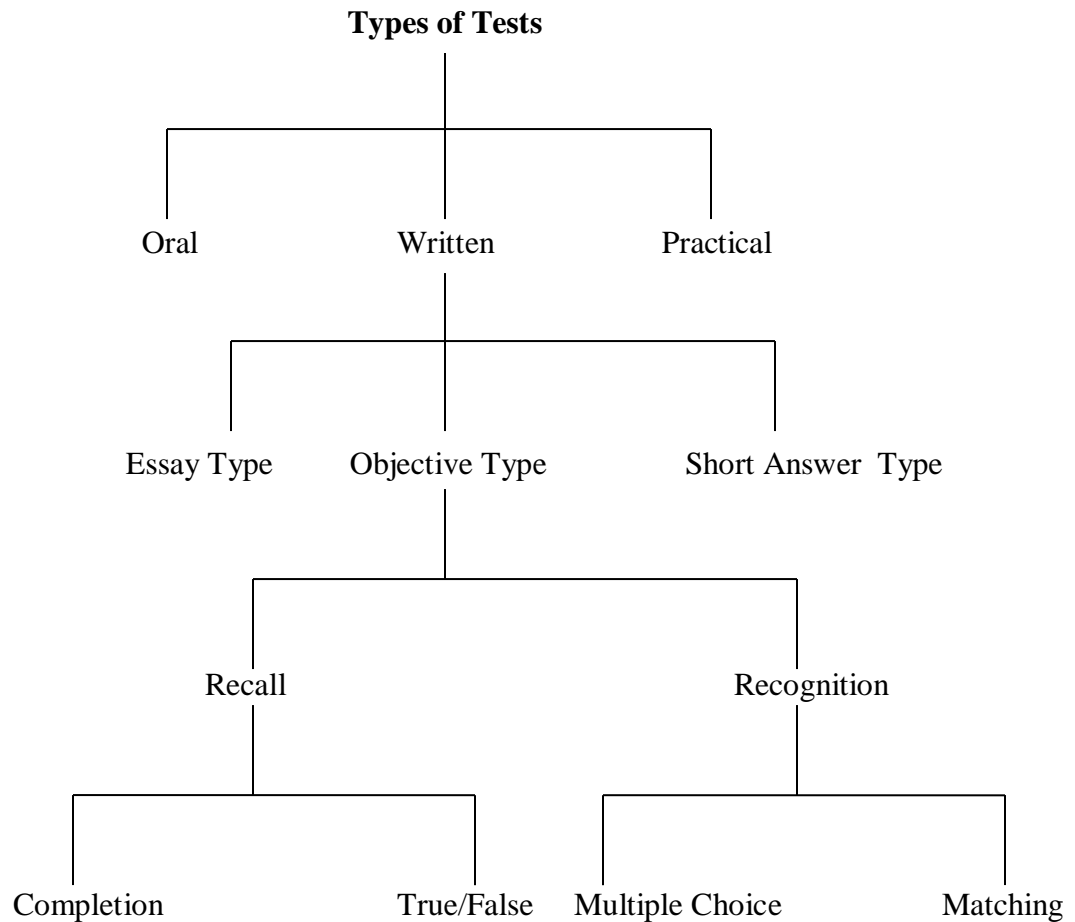
- i. Information Objective: Giving information and knowledge of geographic facts, concepts, laws and principles.
- ii. Understanding: Understanding the various problems of the people due to difference in the natural environment, understanding the value of natural resources.
- iii. Skill: Developing ability to read map, interpret maps, graphs and statistical tables map drawing skill also should be developed.
- iv. Appreciation: Developing the power of appreciation to appreciate the beauty of the beauty of the landscape.

- v. Interest: Interest can be created among students to know about people, their culture and life style.
- vi. Attitude: Developing certain wholesome attitude which will lead to develop the spirit of international understanding and world mindedness.

In order to know whether the above objectives of teaching under various objectives are fulfilled or not evaluation devices are used as means:

- i. Evaluation of knowledge and information: These can be evaluated through
  - a) Oral test
  - b) Objective type tests
  - c) Essay type tests
  - d) Class work
- ii. Evaluation of skills: The devices for skills to be evaluated are daily work done in geography room, assignment work and homework like drawing maps, charts & diagrams etc.
- iii. Evaluations of Attitudes, Interests and values: The instruments like observation, checklists, daily diary, anecdotal records and socio-economic devices, rating scale, interest inventories, and diagnostic tests are used to evaluate the attitude, interest and values of students towards people of different nations.

Though there are different means of evaluation, it is found in present time; mainly the support of examination system has been taken as the means of evaluation. In Geography also pre-assessed objectives are evaluated through different types of tests used to evaluate the objectives of teaching Geography are diagrammatically presented as follows.



### **2.3.2 EVALUATION OF KNOWLEDGE, INFORMATION AND UNDERSTANDING**

At every stage, students are given knowledge relating to geography. The knowledge is given according to prescribed syllabus during the specific period of time. For the evaluation of this knowledge, the following tests are used:

#### **A. Oral Tests**

In oral tests, students are asked questions to which they answer orally. These are of much importance in the evaluation of social sciences including geography. It may take the form of conversation in which both the questions and answers are spoken rather than written. These tests are used to measure skill which cannot be measured by written means. These not only enrich the

children with information but also develop in them the ability to express themselves fully. The teacher can judge their strength and weaknesses on the basis of fluency, pronunciation, intonation and knowledge. Thought provoking questions provide incentives to the pupils. The important techniques of oral tests are:

- i. Reading aloud
- ii. Conversation on the prepared topics
- iii. Questions on pictures
- iv. General questions

### **Advantages of Oral Tests**

- i. These help in developing reasoning power of the pupils.
- ii. Such types of tests develop the skill of problem solving.
- iii. These types of tests help in knowing the differences in the students.
- iv. These are more appropriate and applicable for junior classes where the written abilities are not fully developed.
- v. It is an economical method.
- vi. These tests help in developing the ability of expression of the pupils.
- vii. Teacher's personal presence and guidance in the course of discussion add to the incentives of the children.
- viii. Through these questions, it can be judged whether the students have acquired that knowledge or not.
- ix. There is not scope of copying or using other unfair means.
- x. Besides knowledge and expression skill, these tests evaluate self confidence as well.
- xi. These tests can be used during the whole teaching process with advantage.
- xii. These tests can be introduced at the time of introducing the lesson, during the lesson to develop it or to draw attention.

### **Disadvantages and Limitations**

- i. These tests are time consuming.
- ii. At times these tests can become very subjective.

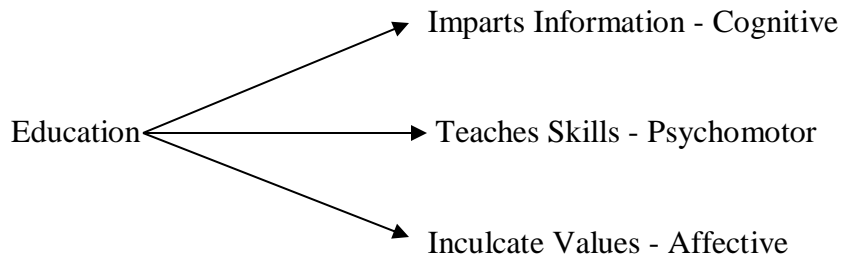
- iii. Judging on the spot is comparatively an imperfect measuring device.
- iv. It is not suitable for all students.
- v. It cannot assess all round development of pupils.
- vi. Through this method, it is difficult to evaluate those students who have good mental abilities, but may not express themselves orally.
- vii. It does not develop the writing capacity of the pupils.

**B. Practical Exam**

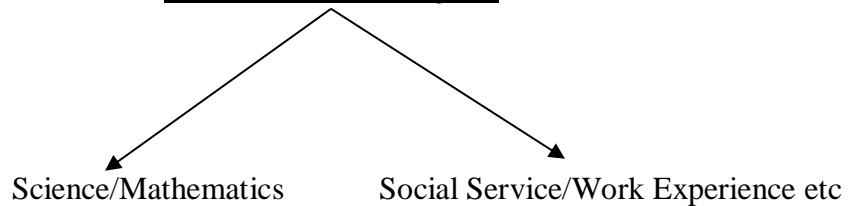
Used for subjects in which pupils are taught to follow specific procedure and/or create some products.

**Need-**

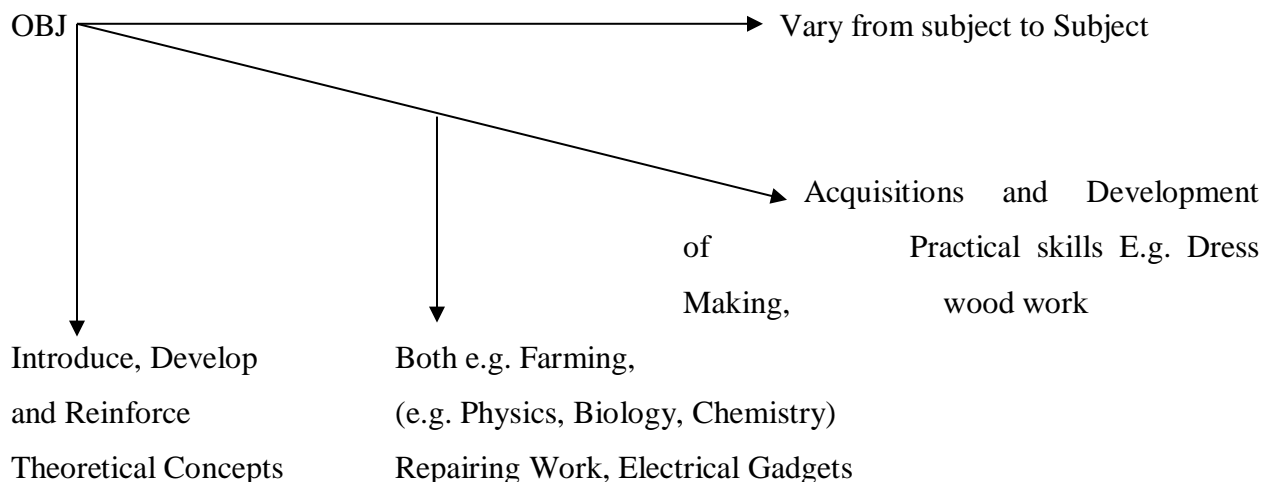
Education is a three-fold process.



**Work Oriented Subjects**



Therefore the need of practical exam in work oriented subjects.



### **Aspects of Practical Work**

- i. Skill in observation and recording of data
- ii. Ability to assess and interpret data.
- iii. Ability to plan procedures for solving problems.
- iv. Manipulative skill
- v. Attitudes towards practical work

### **Methods of Evaluation**

- i. Set exercises (presenting practical problem)
- ii. Project work
- iii. Course work (community work)
- iv. Oral questions
- v. Observation or impression (teaching aids preparation)

### **C. Essay Type Tests**

In essay type tests, the students are expected to write essays on some topics. The pupils are called upon to write three or four pages in about 300 - 500 words to answer an essay type

question. Here attempt is made to test the students' abilities to interpret data, organise and summarise ideas, apply principles, descriptive events, persons and places, think creatively and practically. The examiners are expected to write essays on some of the topics in these type of test. For example:

1. What are the major natural vegetation zones in Nigeria? Give a detailed account of any one of them.(Evaluating Recall type)
2. Outline the progress made by Nigerian agriculture since independence in production and productivity of leading crops – (Outline type)
3. Distinguish between
  - a) tarred and untarred roads
  - b) State highways and national highways – (Comparison and contrast type)
4. Discuss the relationship between temperature and altitude in the atmospheric layer adjoining to earth's surface - (Describing relationship type)
5. What is a multipurpose project? How does it excel over traditional irrigation projects?-(Explanation of exact meaning type)
6. Why is the expansion of manufacturing industries a must in raising the standard of living of our people? (Explanation - cause and effect type)

### **Merits of Essay Type Tests**

- i. These tests can measure the opinions of pupils, their power of marshalling the facts.
- ii. These types of tests give relatively more freedom to the pupils.
- iii. These tests can evaluate even the expression power of the students.
- iv. In these types of tests questions can be easily framed.
- v. Essay types tests are more economical in respect of money, time and convenience.
- vi. Student's attitude towards controversial topics can also be known.
- vii. Some individual traits like originality, power of imagination, organisation and decision making can better be evaluated through essay type tests.
- viii. These tests become easily intelligible to the students.



- ix. These tests encourage creative thinking.
- x. These tests give opportunity to test the concentration power of the students.
- xi. These types of tests are appropriate for large sized classes.
- xii. These types of tests give ample knowledge about the individuality of the examiners.
- xiii. These types of tests help to measure linguistic abilities and the style of presentation.
- xiv. These tests evaluate functional knowledge.

### **Disadvantages or Limitations of Essay Type Tests**

The following are the major drawbacks of essay type tests:

- i. There is relatively a large iota of subjectivity in these types of tests. So these tests are not valid.
- ii. These tests give undue emphasis to unnecessary elements like vocabulary, hand writing and style of writing.
- iii. A lot of check lists are required to evaluate these tests properly. To prepare such elaborate check lists will require a lot of money and time.
- iv. These tests are invariably unreliable. To evaluate these questions very accurately and convert the evaluation in numerical marking is almost impossible.
- v. There is a lot of scope for guessing in such type of tests. In spite of not knowing the correct answer of a question, the students write the answer just by guessing.
- vi. Random sampling in essay type tests is not exhaustive. Ordinarily it is seen that the students are expected to write answers of four or five questions in three hours. Chance plays a very prominent part in these types of tests.
- vii. Sometimes the language of the questions is also far from clear.
- viii. These tests develop tension and anxiety among the students which leads to the development of unhealthy habits of study among them. Ordinarily, it is seen that the students instead of studying intelligently resort to cramming.
- ix. These tests do not have any continuity. They are held only once or twice a year. Previous records of the students are also not taken into account in these types of tests.

- x. These tests do not take into account other aspects of life. For example practical knowledge is not taken into account in these types of tests.
- xi. These tests are less comprehensive because it is a general a complaint among the students that questions did not suit them. The limited number of questions can not cover the whole syllabus. So the students who know the art of examinations are branded intelligent and hard working.
- xii. It does not help in discriminating the students according to their abilities and knowledge.
- xiii. These types of tests encourage immoral practices.
- xiv. These tests are not so effective in testing knowledge. It has been observed that those students who are proficient in written expression get more marks. On the other hand students who have adequate knowledge of the subject matter but are not good in written expression get less mark.
- xv. As these tests encourage memorizing, students do not study the text-books seriously. They prefer to read notes, help books and guides because they get ready-made answers which are easy to memorize. In this way, these types of tests popularize notes and guides and discourage serious study.
- xvi. These tests lack reliability. Reliability means consistency and validity. The assessment of student's knowledge is not reliable. Much depends upon luck and guess work. If they get well prepared questions in the examination they are lucky otherwise they suffer. Besides this, marks awarded by an examiner are also not reliable. If the answer to a question is judged by two separate examiners, there will be substantial difference in their marking. There will be difference in their marking. It will be difficult to say who is right and who is wrong. If the same examiner marks the same answer books next day, the marks will be different. Hence these tests are not completely reliable.
- xvii. Marking of essay type answer books is a pains-tasking task. There are long answers which require patience and mental control in marking. All examiners cannot keep patience for long. Most of the examiners get tired after some time, which affects marking. They stop going through the complete answer and read only the headings or main points or judge the answer by its length. This is not justified. Then, all the examiners do not mark the answer with the same interest. Questions in which they are interested are

marked seriously and questions in which they are not interested are marked casually. This results to injustice to many students. Hence the marking of essay type tests is defective.

However, in spite of the above mentioned defects in essay type tests, they continue to occupy an important place in the examination system. In order to minimize the defects of these tests, short answer type questions are now included in the question paper. Secondly, in order to minimize the subjectivity factor, an answer key (model answer) is prepared. Questions testing reasoning and analysis abilities are set. It is possible to do away with Essay Type Questions completely, because the ability to organise, reason and express the content matter can only be tested through such questions. The need of the hour is to minimise defects of these essay type tests. The other suggestions for removing the short comings of essay type tests are:

- i. The formulation of questions should be carefully done.
- ii. Questions should be evenly distributed out of the whole syllabus.
- iii. As far as possible, paper setter and evaluator should be one and the same person.
- iv. Only experienced teachers should act as evaluators.
- v. There should be a definite criterion and method for awarding marks in such type of tests.

#### **D. Objective Type Tests**

These are also called ‘New Type Tests’ in which the students have to answer the question in a word or in ‘yes’ or ‘no’ or tick the answer as ‘V’ or ‘x’. These types of tests are being used more and more these days.

#### **Various forms of objective Type Tests**

Objective type tests are becoming more and more popular day by day because vast areas of knowledge and understanding can be tested through these tests in a very short period of time. Objective type tests are used in ‘Diagnostic Tests’, ‘Intelligence Tests’, and ‘Aptitude Tests’ etc. These are also called standardized tests because these can be used for all persons of a particular age group. But the objective type tests, used for measuring academic knowledge of school students are prepared by the teachers themselves. These are called non-standardized tests. In preparing these, prescribed syllabus of a subject of a particular class has to be kept in mind. The

teacher can construct various types of questions depending upon his ability, imagination and creativity. These are question for 'which the examiners have to recognize and select one correct answer out of four or five given answer such questions can be called 'Recognition Type' of questions. Questions requiring recall of memory in one or two words can also be constructed. Such questions can be called 'Recall Type' questions. Keeping in view the recognition and recall aspects, the following types of questions can be constructed:

- i. **Question-Answer or Simple Recall Test:** A definite and straight question is asked in it which has only one definite answer. Sometimes this answer is very brief consisting of one or two words or at the most one sentence. Examples:
  - a) Where are Eskimos found?
  - b) How is it that Ice land and Tasmania celebrate their Christmas in different seasons.
  - c) Who discovers North Pole?
  - d) Who discovered North America?
  - e) Who was the builder of Suez Canal?

In such type of questions, the response must be recalled by the pupil from his past experience. The simple recall item is best adapted to the measurement of rather highly factual knowledge of 'who', 'what', 'where' and 'when' etc. and is very widely adaptable' to the subject of geography. It can be used to test the ability, to identify things described or pictured in which form has rather a wide range. In identification exercises, it is perhaps, best adapted for use with maps and charts in geography.

In the construction of these type of questions, the direct form of question is better to ask than the statement form. For example, it is better to ask. Which is the maximum Cocoa growing province in Nigeria? Than to ask Ibadan is the .... province. Care should be taken that the question admits of only one answer.

Because of its tendency to measure factual knowledge rather than understanding, there is a danger of over weighing tests with factual materials. But these types of tests fail to measure abilities of the students to apply facts to perceive complex relationship and draw logical conclusions.

- ii. **True-false Tests:** Here some statements are given. Some of the statements are correct while others are wrong. The students are asked to put tick mark (✓) on the right answer and cross (x) on the wrong answer. Such types of questions are used in maximum number. Technically such types of questions are considered to be best. Examples:
- a) Nigeria gets more rain in August T/F
  - b) One revolution of the earth takes 24 hours T/F
  - c) Because both affect temperature, altitude, latitude really mean the same. T/F
  - d) Isotherms join points of equal rainfall. T/F
  - e) The density of population in Kano is very high. T/F

Sometimes special chances of marking are devised for reducing the pupil's chances of gaining marks from guessing. Pupils can be graded in order of merit from T/F tests but this form test cannot be validly incorporated with other tests into percentage.

- iii. **Multiple Choice Tests:** Here one complete statement is given and also some alternative answers. Out of these answer only one is correct. Students are asked to complete the statement with correct answer. Example:

Which is the capital of Zamfara?

- a) Maradun
- b) Wamakko
- c) Bakura
- d) Gusau
- e) Illela

Or

The existence of desert is due to:

- a) It is beyond the reach of rain bearing winds.
- b) It is situated far from the seas.
- c) There is no mountain to check the moisture laden winds.

Or

Rain is caused when:

- a) The wind rises up due to convection current.

- b) The wind strikes against a mountain and rises up.
- c) The warm and moist wind meets cold dry wind.

From the examples given above, we see that multiple choice and its various forms perhaps represent the most valuable and at the same time the most widely applicable type of objective items.

These types of tests are able to measure the discriminatory power, inferential reasoning, interpretive ability, reasoned understanding, generalizing ability and students' ability to apply and use facts. Guessing is eliminated considerably as compared to True/False type. Moreover, the test situations provoke thinking. But one thing should be kept in mind that multiple choice items are not as easily constructed as are some other objective test forms. In order to frame multi-choice questions, the following precautions should be observed:

- a) All the alternatives used should be as homogenous as possible.
- b) There should be no ambiguity in the statement.
- c) Every alternative response should provoke a careful thinking and should test the ability of judgment of the pupils.

iv. **Matching Type Tests:** There are two columns in these types of tests. In one column there are statements while in the other column are their answers. The students are expected to establish relationship between the statements and their answers. Another way is that some related statements are divided into two parts. One group is presented to the students as it is, while the other part is disarranged. Students are asked to arrange the latter part. Such types of tests are the most important at a time when result is not very important. Such tests can evaluate the capacity of the students to establish relationship between two facts or to classify them. Examples:

Below are given the names dams and the states in which they are built. Put them in right order:

<b>Name of Dams</b>	<b>Name of State Found</b>
Kafin Zaki Dam	Niger
Jebba Dam	Katsina
Jibiya Dam	Oyo
Ikere Gorge Dam	Bauch

Example 2: Below are given characteristics of certain types of climate under column X and a list of climate regions in column 'Y'. Please write the type of climate against each characteristic:

**Column X**

1. Summer-Hot and Moist  
Winter-cool and dry
1. Summer-Extremely short, dry  
Winter-extremely cold with Blizzard
2. Summer-Hot and dry  
Winter-Mild and wet
3. Summer-Long and hot with rainfall above annually  
Winter-Extremely short and dry, very cold.

**Column Y**

1. Tundra type
2. Monsoon type
3. Mediterranean region
4. China type

**Uses of Matching Type Tests**

- a) Such tests are easy to construct and perhaps for that reason more widely used.
- b) These tests are economical of space and construction time.
- c) The matching exercises appear to be most useful with factual knowledge in great variety of situations where it is desirable to test over a number of comparable relationships.
- d) It is useful for numbered maps, charts or pictorial representation for matching places and names and events and objects and names.
- e) Matching tests are designed to measure the child's skill in using map-locating places, identifying map symbols, reading the legends, understanding scales, interpreting map data and recognizing landform.

### **Limitations of Matching Tests**

But their use is limited to test the factual type of subject matter. They only clue to correct responses.

- v. **Completion Type Tests:** In these types of tests, students are expected to fill in some specific place or name. Examples:
- a) Abuja is situated in ..... Geopolitical zone of Nigeria.
  - b) ..... is the highest mountain peak in the world.
  - c) ..... Dam is situated in Sokoto.
  - d) Ghana is in the ..... Region of Africa.

### **Merits of Objective Type Tests**

- a) Answering of questions is easier.
- b) There is no place for irrelevant factors like handwriting, speed of writing or the personal views of the examiners in these types of tests. That is the reason that these tests are more reliable.
- c) There is no place for guessing in these types of tests. It is because instructions for all are definite and clear.
- d) The students cannot cheat the examiner. In these type tests, the answers of all questions are not very long. Therefore, the students can be tempted to write irrelevant material in it. But as there are only one or two words or a sentence or even a tick mark as answer to one question in the objective type test, therefore no irrelevant material can be written.
- e) Evaluation in these types of tests is easier, faster and more reliable. There is no scope for favoritism in these types of tests. The teacher cannot give undue advantage to any student. He cannot also harm any student out of bias. Therefore bitterness does not arise between the teacher and the students. The relationship between the two remains cordial with the result that discipline is maintained in the institution. Quick decision making power of the students can also be evaluated in these types of tests.



- f) Language difficulties in giving the answers do not arise or matter much in these types of tests as the students are expected to write only a word or two as answers.
- g) Sampling is extensive in these types of tests, because questions are picked up from every chapter, topic or sub-topic.
- h) These tests give more emphasis to understanding rather than cramming.
- i) These tests inculcate some good qualities among the students like thinking, observation, inquiry and summarization.
- j) These types of tests are less tiring as the students are not expected to write too much. It is because answers to all the questions are short and definite.
- k) **Economy of time:** Since the responses are definite and brief, the examinees can answer a fair number of questions within a short interval. The examiners can also score rapidly.
- l) **Give greater satisfaction to the Pupils:** Instead of probing the mind at a dozen points only, objective test do prove it at hundred different points. They afford the pupils a greater feeling of satisfaction.
- m) **Helpful in the evaluation of child's total growth:** On account of many and varied types of items, information, understanding, abilities, skills and attitudes related to geography can be tested. We can get the appraisal of the child's total growth.
- n) **Administration easy:** The objective type tests can be administrated with ease and uniformity. Instructions to the pupils are clear and precise. Even sample solutions are given to avoid confusion in understanding the item. Thus objective type tests are quite an efficient means of measuring educational outcomes because of their objectivity comprehensiveness and ease of administration and scoring.

### **Demerits and Limitations of Objective Type Tests**

Objective Type Tests suffer from certain drawbacks also these are as follows:

- i. **Unable to measure the reasoning power of the students:** These tests are unable to measure the reasoning power of students. These tests do tell us the amount of knowledge a student possesses, but it cannot be tested whether a student can argue his point of view.
- ii. **Do not help in the development of expression power:** Objective type tests do not help in the development of expression power, ability. Ability to express ones ideas require

practice. But if students know that their tests do not require expression ability, they will not undergo the difficult task of developing this ability.

- iii. These tests provide only bits of information: The biggest defect in objective type tests is that they do not take into account certain qualities like 'Organisation of subject matter' 'Summarization of thoughts' 'originality', and 'power of imaginations of the students'. These tests test only bits of information but not the organised matter.
- iv. **There is a lot of scope for guessing in these types of tests:** In objective type questions most of the students make use of guess work and cleverness. They guess that 50% of the answers will be 'yes', therefore they can answer all questions in 'yes' and get pass marks.
- v. **Great scope for copying:** There is a scope of mass copying in these types of tests. It becomes difficult to control it. Any student saying 'yes' or 'no' gives a hint to the others. The examinee sitting in front can show his answer to the examinee sitting at the back. So these tests spread copying pollution and it becomes difficult to discriminate among bright, average and weak students.
- vi. Do not encourage the students to study extensively and think independently: Objective type tests do not encourage the students to study extensively and to think independently. They know that the objective type questions are based on their textbooks. Hence, they do not study and other book and this tendency discourage independent study.
- vii. **Framing of questions paper is a very long process:** The construction of good objective questions is a very difficult task. The paper-setters have to construct many questions of various types. It requires training, ability, extensive knowledge, time, energy and patience. Without it, a good question paper cannot be prepared. Improper and defective forms of questions defeat the very purpose of having these.
- viii. **Discourage serious study of Textbooks:** Like essay type tests, objective type tests also discourage serious study of text-books and encourage dependence on notes, help books and guides. When there are many objective type questions based upon each lesson available in the guidebooks, why should the students study the prescribed textbooks? They memorise the questions contained in the guide and appear in the examination.
- ix. Students cannot express their ideas and emotions in these types of tests.
- x. It is not possible to evaluate their power of creative thinking in these types of tests.

### **Some Precautions to the Use of Objective Type Tests**

In spite of the above-mentioned defects, the utility of objective type tests cannot be denied. The vastness of the subject geography demands that the students must have extensive knowledge of each and every aspect of this subject and to test this extensive knowledge, objective type of questions must form a part of the examination. In order to remove these defects, the following precautions can be taken to improve the objective type tests:

- i. There should not be only one type of objective type questions but of many types and they should be large in number. This will reduce copying.
- ii. The exact wording of sentences of text-books should be avoided to discourage memorizing tendency.
- iii. Almost the whole course should be covered through objective type questions. This will force the students to prepare the whole course.
- iv. The language of these questions should be easy, clear and understandable. The statements given in the questions should also be clear.
- v. Necessary instructions should also be given before the questions in clear and simple terms.

### **E. Short Answer Type Tests-**

In such type of tests such questions are set which require short specific answers in a few lines. The main purpose of these tests is also to measure a large amount of knowledge and understanding within a short time. As the demand of the questions is definite and specific, there cannot be much variation in answers. Language does not play much part in answering the questions as the examinees are not required to write much. Marking of answers can be done more objectively than in Essay Type Tests. The questions are not as mechanical as objective type but are open ended. Examples:

1. Name three reasons which are responsible for the rapid increase in the population of Nigeria.
2. How is that Iceland and Tasmania celebrate their Christmas in different seasons.(Not more than 40 words)
3. Name three sources that produce electrical power.
4. Briefly discuss three main causes of soil erosion.
5. What type of climate is found in Monsoon region both in summer and winter.

## Self-Assessment Exercise (s) 2

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5 minutes.

1. Which of the following is not a method of evaluating students? (a) oral questions (b) questionnaire (c) test (d) exercise
2. Evaluation of knowledge and information can be carried out through the following, Except \_\_\_\_\_ oral test (b) objective type tests (c) essay type tests (d) skill
3. Abuja is situated in .....Geopolitical zone of Nigeria. Identify the form of objective test. (a) complete type test (b) fill in the gap (c) multiple choice test (d) question and answer test



## 2.4 Summary

In this unit, we have discussed about evaluation of geography teaching by using different tools and techniques. The main tool used everywhere is the examination system which includes oral, written and practical examinations. In written test, we use objective type test, short answer type test and essay type tests. Every pattern of test has its own merits and limitations. If we will use it combining judiciously all these types of tests as per the objectives of teaching, then the evaluation will be correct and successful.

In this unit also, we have studied about the procedure of evaluation in teaching Geography. Like all other subjects Geography has its own objectives of teaching. Through the teaching of Geography, students get various knowledge and information about the people of various places, understand their culture and life style due to geographical constraints and appreciate the nature's gift. In order to evaluate to what extent these objectives are achieved, various tools and techniques of evaluations are used. These evaluation tools include various types of tests out of which examination technique has dominated over others. In the examination system, oral, written and practical examinations are taken to fulfill the objectives. Besides this, co-curricular activities also now have taken important place to evaluate the student's knowledge, skill, attitude and aptitude and appreciation ability. In spite of merits and limitations of different types of tests, if judiciously selected, the evaluation will be proper. Therefore, integration of different tools and techniques as per the objectives of the programme will give impartial judgment.



## 2.5 References/Further Readings/Web Resources

Aydın, F. (2005). The views and practices of Teachers about Alternative Measuring and Assessment.14th National Educational Sciences Congress, Pamukkale University, Denizli.

Bekiroglu OF (2004), Standard and Alternative Measuring And Assessment Methods: Practices in Physics, Nobel Publishing House, Ankara

Salam, A.A., Deveciolu, Y.K. and Arslan, S. (2009). Problems Encountered in Alternative Measuring and Assessment Activities: Science and Technology Teachers Example. Ondokuz Mayıs University. *Journal of Faculty of Education*, 28: 1-12.



## 2.6 Possible Answers to SAEs

Answers to SAEs 1

3. False
4. True
5. False

Answers to SAEs 2

1. D
2. D
3. A