

TAMIL NADU TEACHERS EDUCATION UNIVERSITY

Chennai-600 097

Course Material for B.Ed (First Year)

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Course 7a: Pedagogy of Geography (Part –I Methodology)

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Unit I Aims And Objectives Of Teaching Geography

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UNIT – I: AIMS AND OBJECTIVES OF TEACHING GEOGRAPHY

Objectives

After the completion of the unit, the learners will be able to:

1. understand the meaning, nature and scope of teaching geography
2. develop an understanding of the aims of teaching geography.
3. develop an understanding of the objectives of teaching geography
4. develop an understanding of the need and significance of teaching geography in schools
5. understand the values of teaching geography in schools.

GEOGRAPHY: MEANING, NATURE AND SCOPE

Geography is the study of the earth and its lands, features, inhabitants and phenomena. A literal translation would be “to describe or write about the Earth”. The first person to use the word “geography” was Eratosthenes (276-194 .B.C.). According to Macnee, “Geography is the study of earth as the home or in other words, Geography is the study of environment of man, physical and social, particularly with relation to human activities.” Geography has been derived from the words, ‘geo’ and ‘graphy’. ‘Geo’ means earth and ‘graphy’ means ‘study’ or ‘description’.

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

Geography has also gone through different changes from time to time means that we have to understand the development journey of Geography to understand this form of Geography and Geography too divided this development journey in three parts.

1. Geography in Ancient Age
2. Geography in Middle Age
3. 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 has also been a progressive & changing as well as dynamic subject. Now the scope of the subject of study of geography 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 former largely focus on the built environment how humans create, view, manage, & influence space. The latter examines the natural environment, and how organisms, climate, soil, water and land focus produce & interact.

Geography Meaning

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 & graphy refers to writing. Today Geography means much more than writing about the earth but its difficult discipline to define geography is a fascinating subject. It 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 & political spheres to the local and the global. Through Geography we learn to appreciate the diversity of landscapes, peoples & cultures, Geography is therefore a vital subject resource for 21st century global citizens, enabling us to face questions of what it means to live sustainably in an interdependent world.

Concept of Geography

Geography has had a very chequered course of development .It passed through different phases of rise & 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 & 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 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 & interests of the child 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 like any other science it follows a scientific course. The geographers of today are now increasingly concern 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 expressing on the landscape is the field of geographical studies.

Modern geography is defined as a “Unifying science the raw material it deals with is derived largely for 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 & the phenomena. This concept of applied geography is of great significance in developing universal brotherhood and offers scope for geographical techniques of survey, analysis & 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 researchers in physical, economic, human and regional geography. The land use survey is a technique adopted by geographers for study of agriculture regions to bring about an improvement of the social services and understanding the processes of economic, regional & social development. Essentially geography was a study of mankind. Today geography can be defined as “geography is a science of man on the earth studying the action and interaction between man & nature.

Definitions of Geography

James Fairgrieve- “Geography is the science of relationship between physical inorganic factors and principles and of organic factors.”

PrestonJames-“Geography deals with the association of phenomena that gives character to particular places & with the likeness and differences among places”.

Cholley has expressed his view “The object of geography is known the earth.”

“The character of a particular region cannot be exploire 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 & 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 are of the human group.”

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 endow interest from both scientist and student of social sciences, as it includes physical sciences like physics, chemistry mathematics, and astronomy on the one hand and Natural and humanistic studies like any other science draws its raw material from other science and it employs the derived raw material from its own angle and its own manner. Geography has its own unit of study the regions of the world. Each unit through interlinked has its own 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:

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. It splits 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.

Economic Geography

This concerns the production and distribution of the raw materials in the country. The internal, external and international trades come within its domain. 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.

Human Geography

The subject covers the evolution of mankind, its different races, their distribution and man's adaption to environments. It is an established fact that no man's life today is tied up completely to his immediate surroundings and that human life is to be treated as a partial adaption to the geographical. 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 & analyses their historic growth. The study of urban geography there is less of the theory of environment 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.

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.

Cartography:

The term is applied to the conception, the design and the execution of maps of the art of drawing maps and charts. This branch is responsible for geodetic and topographic surveys and preparation of map[s] 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.

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

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.

Agricultural Geography:

Agricultural Geography helps a geographer to understand how particular kinds 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 different kinds of agriculture are distributed over the earth and how they function in this spatial arrangement.

AIMS AND OBJECTIVES OF TEACHING GEOGRAPHY IN SCHOOLS

- (1) To acquaint the pupils with the living conditions of men in different parts of the globe.
- (2) To enable the pupils to acquire a knowledge of natural resources.
- (3) To develop in pupils an understanding of how environment and climatic factors have influenced our life.
- (4) To help the pupils to acquire knowledge of their physical and social environment and thus to broaden their outlook.
- (5) To develop in them an understanding of basic concepts, principles and theories relating to geographical phenomena.
- (6) To train the pupils in nature study.

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- (7) To develop the power of thinking, reasoning, memory and power of imagination of pupils.
 - (8) To develop their ability to draw conclusions and to generalize.
 - (9) To develop a love for nation and to develop cosmopolitan and internationalist outlook.
 - (10) To develop the creative talents of pupils and to develop an attitude of discovery in them.
 - (11) To develop the skills of reading maps and globes, to develop drawing and measuring skills, and to develop the skill of using and manipulating geographical instruments.
 - (12) To enable the pupils to appreciate the natural beauty and other physical forces.
 - (13) To help the pupils to acquire economic efficiency and lead a successful life.
 - (14) To adjust human life in accordance with geographical circumstances.
 - (15) To develop scientific attitude and to develop the ability to draw valid conclusions and independent thinking.

In fact, Geography today is a combination of art and science. Its scope and study is broad and comprehensive. Geography has well established itself as a science.

NEED AND SIGNIFICANCE OF TEACHING GEOGRAPHY

Any topic in geography helps in realizing some general aim of teaching geography. The characteristics of a good objective are as under:

- (i) It should be specific and precise.
- (ii) It should be attainable.

Bloom's taxonomy of objectives is a classification of instructional objectives in a hierarchy. According to it the specific objectives have been classified into the following three categories:

- (i) Cognitive domain objectives.
- (ii) Affective domain objectives.
- (iii) Psychomotor domain objectives.

The cognitive domain objectives include knowledge, understandings, applications, analysis, synthesis and evaluation. The effective domain objectives include the appreciations, values, attitudes, interests and feelings. The psychomotor domain objectives include skills.

Intellectual Development

The basic objective of education is to bring about an all round development of the personality of the child. All round development includes the intellectual development. A proper intellectual development is a must for any proper cultural consciousness. To earn a livelihood is not the sole objective of life. One needs leisure after earning his livelihood and one should be able to spend one's leisure time properly and usefully. This leisure time should be used for intellectual and spiritual development for a balanced growth of human race. It is only through the intellectual development that we can distinguish between good and bad. This power of distinguishing between good and bad is essential to become a successful member of society.

Knowledge of the world and the broadening outlook

Geography teaching provides to the pupil knowledge of the different people of the world and the contributions made by them for the development of world culture. Such knowledge broadens our outlook and brings about the development of world brotherhood and world citizenship. Through the knowledge of geography the pupil realizes the interdependence of mankind. He also becomes familiar with the differences in the physical character of the people and understands that such differences are due to variations in physical environments, thus we find that development of the international outlook is one of the aims and objectives of teaching of geography.

Development of quality of generosity and sympathetic outlook

From the knowledge of geography a pupil realizes the interdependence of mankind and develops a sympathetic attitude when he observes a similarity of needs all over the world. Such an attitude helps them to grow not only as good citizens but as good world citizens. This type of feeling if developed will boost the idea of world democracy and will help world peace for all times to come.

Quality of adjustment with environment

Since in geography a student is taught about people of different lands, their culture, their mode of living etc. This knowledge develops in the student the quality to mould and

change himself in accordance with the circumstances and he acquires the quality of adjusting with the environment. This type of adjustment is useful for his future life.

Economic Efficiency

From the study of the geographical conditions of various lands the student comes to realize that it is not possible to maintain the same standards of comforts all over the world. Geography lays down the foundation for economic, social and political problems. The advancement of a country is measured by the services it renders to other nations. The knowledge of geography helps the pupil to render any such service and to earn his livelihood. Thus geography makes a student self-sufficient.

Development of power of reasoning, invention and discovery

Like any other subject the study of geography develops in the pupil certain mental faculties. The pupils have to reason out many things on the basis of data provided. This develops in the pupils the power of reasoning. In the process of learning geography students many a times come across various secrets of nature which helps them to acquire an outlook of inventions and discoveries. It fits well with the aim of geography teaching which requires development of imagination power. Geography being a science oriented subject an effort is also made to find a cause and effect relationship which helps to develop the power of reasoning in the student.

Development of Balanced personality

The knowledge of physical factors and environment that a student acquires from study of Geography helps him to develop his personality and this allows the individual to grow properly. In this way a pupil can acquire a balanced personality by making proper use of his knowledge of geography.

Love for nature, travels and knowledge about other countries

Geography broadens the mind and stimulates imagination with the information it provides. It encourages travel. The knowledge gained by such travels helps the pupil in meeting many a problems of everyday life. A student of geography can appreciate the beauty of nature better and thus geography develops in the student a love for nature. When a student of geography is taught about the beauties of nature, such as snow clad mountains, green forests and the animal wealth, he is bound to be attached towards nature.

This attachment towards nature might cultivate in him a sense of responsibility for the care and protection of nature and its beauty. The study of landscape may become a good

pastime with him. A student of geography when told about other countries and their culture gets inspired to take a travel and to know more about those countries. Culture is the sympathetic appreciation of the universal truth expressed in art, literature, philosophy, science and religion. It sharpens man's instinct to know the unknown, to see the unseen and to fathom the unfathomed.

Acquisition of knowledge of Natural Resources

It is the primary duty of a geography teacher to contribute his mite towards the realization of primary aim of education by taking such measures which may ensure sound factual knowledge, a clear understanding of factual relationship and a keen development of intellectual powers. Students of today shall be citizens of tomorrow and the knowledge of natural resources and economic conditions gained by him by study of geography will help him to play his part effectively in administration and economic development of his country.

Development of International Understanding

Development of international understanding is one of the important aims of teaching of geography. In one of its publications UNESCO suggests, "Geography demonstrates that throughout the ages none has been able to boast that he can exist". The interdependence of man and nature has increased enormously. From one's study of different people of the world one knows that all nations, large and small, depend upon each other economically, culturally and socially. Such interdependence imposes certain duties on each man and on each nation. It is the duty of the geography teacher to point out to international pacts and international organizations which are busy in solving complex problems of economic interdependence and international solidarity.

Knowledge of geography helps to bridge the gap and help in avoiding conflict by bringing about international understanding. This very fact has been corroborated in Norwood report, "curriculum and examinations in secondary schools". In this report it has been emphasized that, "no one can realize more vividly than the trained geographer that the regions of the world are interdependent and no one can base the approach to world harmony on sounder foundations".

Knowledge about influences of geographical factors on man

The knowledge about influences of various geographical factors on man is another important aim of study of geography. From his knowledge of geography a student can better

understand the influence of various geographical factors on man. For example the Tundra residents are meat eaters because of the compulsions of various geographical factors.

Help Development of Human Civilization

Civilization and culture of an area are influenced by various geographical factors. We know that many a civilizations came into existence and many a civilization vanished because of geographical factors. To make a study of such factors is an important aim of the study of geography. Such knowledge can be used by an individual to compare himself and his circumstances with other individuals and their circumstances. Such a comparison is useful in making a proper assessment of one's own self and that of one's own motherland. This assessment will help the individual in proper discharge of his duties towards others.

Development of a Nation

The knowledge of geography makes an important contribution towards the development of a country. When each country depends on others the study of geography becomes essential. In order to create a desire in a child to serve willingly his country and his fellowmen the teachers should make them understand thoroughly the geography of their country. The pupil is allowed to feel the political, social and racial ties of his country from the study of books, direct observations and experiences and let the child develop a constructive attitude to all that concerns his country. The teacher should impart him such lessons which arouse his interest in his surroundings.

VALUES OF TEACHING GEOGRAPHY

In the words of Fairgrieve "The real value of geography lies in the fact it helps man to place himself in the world to learn his true position & duties". 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 than it because easier for him to plan his future. Such knowledge can be of much help to an individual in developing social, political & economic relationships with the other countries. Thus we find that the knowledge of geography has a practical utility.

Cultural and Intellectual Values 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 propos

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 an image of all these things is focused before him. Whenever he actually comes across any of the country Geographical factors also influence the intellectual life of a country so we can say that geography has an intellectual importance.

Cultural Values

- develops a feeling of patriotism.
- develops love for nature and capacity to understand & appreciate the natural beauty, physical forces and such other things
- develops the ideal of world citizenship universal brotherhood; co-operation and sympathetic outlook for others
- develops cultural values in the light of values of land and the man.
- develops the adjustment of human life according to the geographical circumstances

Intellectual Values

- develops the cultural consciousness
- develops the understanding of earning livelihood.
- develops the understanding of use of leisure time in proper manner.
- develops the power of observation.
- develops the power of thinking, reasoning, memory & power of imagination.
- develop their ability to draw conclusion and to generalise.
- develops the creative talents of pupils and to develop an attitude of discovery in them.
- develops the skills of reading map & globes, to develop drawing & measuring skills and to develop the skills of using & manipulating geographical instrument.
- develops scientific attitude and to develop the ability to draw valid conclusion & interdependent thinking.

Social or Citizenship Values:

- Geography offers many possibilities for developing sympathy for the lives and problems of other people. Really it develops in the pupils a social sympathy feeling of relationship to others.

- 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.
- 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.
- To develop a constitutive attitude towards all that corners his country.
- To create a requisite of creating love for once country is to make him know it thoroughly. By laying honestly before the pupils interest, aspirations and tradition of this country.
- To develop and understanding of necessitates living on a basis of international co-operation and understanding.
- 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

Questions for Discussion and Reflection

1. Describe the nature and scope of teaching geography.
2. Brief the aims of teaching geography in schools.
3. Explain the objectives of teaching geography in schools.
4. Discuss the significance of teaching geography in schools.
5. Describe the values of teaching geography in schools.
- 6.

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UNIT – II PLANNING FOR INSTRUCTION

Objectives

After the completion of the unit, the learners will be able to:

1. explain the steps involved in the lesson plan.
2. design a unit plan for Geography.
3. formulate instructional objectives based on the domains.
4. construct test items for formative evaluation.
5. discuss the different types of test items.

INTRODUCTION

Planning means making decisions about what information to present, how to present the information, and how to communicate realistic expectations to students. If all students in a class were at the same instructional level and if the goals and objectives of schooling were clearly prescribed and the same for all students, then instruction would consist of doing the same things with all students, in the right order, at the right time. But all students are not alike, and the goals and objectives of instruction are not the same for all students. This is why planning is such an important part of instruction.

STEPS IN PLANNING A LESSON

A lesson plan is the instructor's road map of what students need to learn and how it will be done effectively during the class time. Before planning the lesson, it is needed to identify the learning objectives and then design appropriate learning activities and develop strategies to obtain feedback on student learning. The following point helps in planning a lesson.

Herbartian formal steps for lesson planning are as follows

1. Preparation
2. Presentation
3. Association and comparison,
4. Generalization
5. Application
6. Recapitulation

Preparation

In this state simply a ground is prepared. Student is made ready to learn something new. Nothing new is total to the child. Child's previous knowledge is tested in such a way that interest may stimulate for learning something new in the mind of the child. This should be done by linking their previous knowledge with the new learning material.

(ii) Presentation

Before coming to the second step, aims of the lesson are made clear to the students. The methods and techniques employed are related to the subject matter. Material is presented to the students in an orderly manner with suitable examples, taking in account the understanding power of the child. Proper question answer technique is employed to develop the subject matter with mutual participation of the teacher and taught. Proper illustrations and aids are used according to the needs.

(iv) Association

In this step new ideas and knowledge is compared with the known similar facts to arrive at proper generalization, to establish principle or to derive definition. It is the most important step in the process of lesson planning.

(iv) Generalization

In this step by considering the above generalized facts, principles and definitions with the help of association and compression, students themselves draw out the conclusions in this step, if sometimes students are unable to have proper conclusion and generalization of the learning material, teacher should help to correct the result.

(v) Application

After establishing new formula or principle, practical implication of the material are given to the students, related to their everyday life, to have actual verification of the derived formula or principle. This helps to make the learnt material more clear and understandable.

(vi) Recapitulation

In this step assessment of teaching and learning material is done. By putting objective type questions to the students at the end of teaching. If need arise corrections are made. Finally home work is assigned to the students related to the subject matter taught.

SETTING LESSON GOALS

1. Subject matter in the lesson plan should be according to the time for teaching at the disposal of the teacher
2. Provision of homework related to the subject matter taught should be there.
3. It should provide maximum participation of the child in the teaching and learning process.
4. In the lesson plan there should be proper provision of the teaching aids and good illustrations.
5. In the lesson plan there should be proper provision of recapitulation to have view of evaluation of the subject matter taught to the students.
6. In the lesson plan there should be provision of summary of whole subject matter.
7. Lesson plan should be child centered.
8. Example quoted to teach and explain the subject matter should be related to the everyday life of the child
9. Method, procedure and techniques applied for teaching should be according to the age and the mental level of the students.
10. Subject matter arranged in the lesson plan should be related to the previous knowledge of the child.
11. Selection and organization of the subject matter should be to the point and systematics.
12. It should be written clearly and vividly.

DESIGNING A UNIT PLAN

Different meaning has been assigned to the term unit. They are 1. The lesson of the day 2. As a Chapter in a text book etc. Syllabus contains many topics/ units such as Mensuration, Algebra, Triangles trigonometry, Statistics etc.

Definitions of Unit Plan

According to Morrison, H.C. – “A Unit is a comprehensive and significant aspect of the environment of an organized science and art”.

According to Preston – “A Unit is as large a block of related subjects’ matters as can be overviewed by the learner.”

According to wisely – “ The unit is an organized body of information and experience designed to effect significant outcome for the learner”

Unit Planning

A unit plan involves planning a teaching a unit, teaching methods, evaluation of teaching activities, diagnosing and remedial steps all together is called unit planning.

DESIGNING A LESSON PLAN

Planning of a lesson is an important equipment of a teacher in a school or in a college. A lesson plan is strictly individual; it is indeed the creation of the teacher who plans out lesson plan. A plan is a work or is involving much imagination and study. The plan is an unfolding of the teacher’s soul; it contains the life-blood of the teacher. Lesson plan is a kind of discipline, which has to be learnt in the training college.

R.L. Stevenson sates the importance of lesson plan as, “To every teacher I would say,

S.NO	Sub Division of content	No. of Period required	Teaching Method	Resource Materials	Evaluation

always plan out your lesson beforehand but do not be slave to it”

Ryburn also said, “To Teach we must use experience already gained as starting point of work”. Hence the lesson plan reflects the intelligence, ability, capacity, resourcefulness and personality of the teacher. Lesson planning provides awareness to the structure and content with which teacher is involved in the direction to achieve the objectives.

BLOOM’S TAXONOMY OF EDUCATIONAL OBJECTIVES

Benjamin bloom, has been extremely influential in clarifying and organizing educational thought regarding the classification of objectives, his original work being carried out during the 1950’s. Bloom and his co-workers contended that objectives are attainable in three distinct areas, or domains, to which they assigned suitably impressive jargon names: the cognitive domain, affective domain and psychomotor domain.

The cognitive domain

This contains objectives which are related to the acquisition and application of knowledge and understanding, and probably includes the great majority of educational and training objectives. An example of such an objective might be: “The student should be able to calculate all the dimensions of a triangle given the lengths of two sides and the size of the angle between them”. Bloom and his co-workers also divided the cognitive domain into six distinct levels, each level building on those below and representing a progressively higher level of cognitive activity. Their hierarchy of the cognitive domain is as follows.

Level 6: Evaluation: Making judgments/critical comparisons on the basis of agreed Criteria.

Level 5: Synthesis: Bringing elements together to form a new, coherent whole.

Level 4: Analysis: Breaking a system down into its constituent elements.

Level 3: Application: Applying procedures/systems/rules in specific situations.

Level 2: Comprehension: Understanding and interpreting information

Level 1: Knowledge : Recalling information

The affective domain

This contains objectives that are concerned with attitudes and feelings which are brought about as a result of some educational or training process. An example of such objectives might be: “The trainees’ lecturer should exercise empathy when counselling students”. The affective domain was also divided into a number of distinct, hierarchical levels; this work was carried out by Bloom.

Level 5: Characterization: integrating one’s beliefs, ideas and attitudes into a total, all-embracing philosophy.

Level 4: Organization: Making adjustments or decisions from among several alternatives.

Level 3: Valuing: Committing oneself to taking up an attitudinal position.

Level 2: Responding: Showing active interest in something.

Level 1: Receiving: Developing an awareness of something.

The Psychomotor domain

This contains objectives that deal with the development of manipulative or physical skills-things like measuring setting up and using equipment, using tools, drawing graphs, and so on. An example of such an objective might be: “The student should be able to assemble and use the distillation apparatus provided”.

Level 4: Speech behavior: sound production and projections sound/gesture coordination

Level 3: Non-Verbal Communication: Facial expressions gestures, bodily movements.

Level 2: Finely-Coordinated Movement: Movements of hand and fingers, hand and eye, eye and foot, etc.

Level 1: Gross body Movements: Movements of arms, shoulders, trunk, feet and legs

MODEL LESSON PLAN – GEOGRAPHY

Name of the School: _____ Student Teacher Name: _____
Standard : _____ Guide Teacher Name: _____
Unit : Soils
Date : _____
Topic : Major Soil Types of India
Duration : 45 Minutes

INSTRUCTIONAL OBJECTIVES : THE STUDENT

1. Defines the soil profile
2. Classifies the soils.
3. Explains the agencies in India
4. Analyses major soil types of India.

INSTRUCTIONAL RESOURCES REQUIRED

1. Map showing major soil types of India.
2. Chart showing soil profile.
3. Soils samples.
4. Map.

PREVIOUS KNOWLEDGE OF LEARNERS

Have ever plant the tree? How it is firmly fix?

Content	Specification of behavioural outcomes	Learning Experiences	Evaluation
Soils consist of three layers which are called horizons.	Defines	The teacher defines with the help of chart.	Define soil profile.

<p>Horizons are named as A, B and C from top to bottom. Each horizon contains mineral matters and nutrients. This arrangement of layers known as the soil profile.</p>		<p>Students draw the soil profile in the notebook.</p>	
<p>Soils are classified on the basis of texture and colour. Bases on the texture, main soil types are sandy, clayey, slity and loam. On the basis of colour, they are red, yellow and black.</p>	<p>Classifies</p>	<p>The teacher classifies the soil with the help of samples.</p> <p>Students access the soil samples.</p>	<p>Classify the soil types.</p>
<p>The agencies like Soil Survey of India and Indian Council of Agricultural Research (ICAR) has classified the Indian Soils on the basis of nature, colour and location.</p>	<p>Explains</p>	<p>The teacher explains the role of Soil Survey of India and ICAR.</p> <p>The students abbreviate ICAR.</p>	<p>Write the expansion of ICAR.</p>
<p>The soils of India have been classified into eight types. They are, 1. Alluvial soils, 2. Black soils, 3. Red and yellow</p>	<p>Classifies</p>	<p>The teacher shows the map of major soil type of India and explains.</p> <p>The students locate</p>	<p>Locate the black soil area in map.</p>

soils, 4. Laterite soils 5. Arid soils, 6. Saline soils, 7. Peaty soils and 8. Forest soils.		the soils types in map.	
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FOLLOW UP ACTIVITIES

1. Draw a map showing major soil types of India in a chart.

Signature of the Guide

Signature of Student

TYPES OF TEST – ITEMS

1. Multiple-Choice Tests
2. True-False Tests
3. Matching Tests
4. Essay Tests
5. Short-Answer Tests
6. Problem sets
7. Oral exams

Multiple-Choice Tests:

Multiple-choice items can be used to measure both simple knowledge and complex concepts. Since multiple-choice questions the students can give the answer very quickly and correct. Use of this items when the student gave the correct answer a question that student have clear idea about the question. In addition, the items can be easily and reliably scored. However, good multiple-choice questions are difficult to write.

True-false Tests

True-false tests are less reliable than other types of exams. However, these items are appropriate for occasional use. Some faculty who use true-false questions add an “explain” column in which students write one or two sentences justifying their response.

Matching Tests

The matching format is an effective way to test students' recognition of the relationships between words and definitions, events and dates, categories and examples, and so on.

Essay Tests

Essay tests or assignments enable you to judge students' abilities to recognize, interpret material, and express themselves in their own words. Research indicate that students study more efficiently for essay-type examinations than for selection tests: students preparing for essay tests focus on broad issues, general concepts, and interrelationships rather than on specifics details and this studying results in somewhat better student performance regardless of the type of exam they are given(McKeachie,1986)

Essay also given you an opportunity to comment on students' progress, the quality of their thinking, the depth of their understanding, and the difficulties they may be having. However, because essay tests pose only a few questions, their content validity may be low. In addition, the reliability of essay tests is compromised by subjectivity or inconsistencies in grading.

Short-Answer Tests:

Depending on your objectives, short-answer questions can call for one two sentences or a long paragraph. Short-answer tests are easier to write, though they take longer to score, than multiple-choice tests.They also give you some opportunity to see how well students can express their thoughts, though they are not as useful as longer essay responses for this purpose.

Problem sets

In courses in geography and the sciences, your tests can include problem sets. As a rule of thumb, allow students ten minutes to solve a problem you can do in two minutes.

Oral Exams

Oral exams are sometimes used for undergraduates in foreign language classes. In other classes they are usually seen as too time- consuming, too anxiety provoking for students, and too difficult to score unless the instructor tape-records the answers.

CONSTRUCTING TEST-ITEMS FOR FORMATIVE EVALUATION IN CLASS

General steps

1. Identify and define the learning outcomes to be measured
2. Prepare test specifications
3. Construct relevant test items

4. Review and edit the items
5. Arrange the items in the test
6. Prepare directions

Step 1: Identify and define learning objectives

1. State the general objectives.
2. Develop 5 to 15 general objectives.
3. Begin each general objective with one of the six cognitive domain headings of Bloom's Taxonomy
4. State the specific objectives.
5. For each G.O., develop 3-5 specific objectives.
6. Begin each S.O with an action verb.

Step 2: Preparing Test specifications

1. Select the specific outcomes to be tested
2. Outline the subject matter by listing topic and subtopic areas in the lesson plan
3. Make a two-way table of specifications

Step 3: Construct Relevant Test Items and Consider:

1. Selecting the type of test items to use
2. Selecting type items (e.g, multiple choice, true-false, matching, interpretive exercises)
3. Supply type items(e.g, short answer, essay(restricted response), essay (extended response)
4. Matching items to Specific Objectives
5. For each S.O., write one or more related items, Parts of an Item:
 - i. Stem-the question or incomplete sentence.
 - ii. Alternatives-the choices
 - iii. Distractors-the incorrect choices

Step 4: Review and edit the items

1. Does each test item measure an important learning-outcome included in the table of specifications?
2. Is each item type appropriate for the particular learning outcome to be measured?
3. Does each item present a clearly formulated task?
4. Is the item stated in simple, clear language?
5. Is the item free from extraneous clues?

6. Is the difficulty of the item appropriate for the students to be tested?
7. Is each test item independent and are the items, as a group, free from overlapping?
8. Do the items to be included in the test provide adequate coverage of the table of specifications?

Step 5: Arrange the items in the test

1. The items should be arranged so that all items of the same type are grouped together.
2. The items should be arranged in order of increasing difficulty.
3. For some purposes, it may be desirable to group together items which measure the same learning outcomes or the same subject-matter content.

Step 6: Prepare directions

1. Purpose of the test.
2. Time allowed to complete the test.
3. How to record the answers.
4. Whether to guess when in doubt about the answer.

CONCLUSION

The planning aspects of teaching is so important that it alone can determine the failure or success of teacher. It is the planning of lessons that take into account the interaction between student and teacher that determines the success of the learning experience. Teachers who spend more time in preparation will spend less time in trying to keep their students on the learning track.

Questions for Discussion and Reflection

7. Explain Bloom's Taxonomy of Educational Objectives with suitable examples.
8. Prepare a model Lesson Plan for any one of the topic in 9th standard Geography Text book.
9. Briefly explain the significance of Lesson Plan in teaching Geography.
10. Critically analyse the structure and steps involved in the four fold Lesson Plan.
11. Explain the types of test-items and construct test-items for formative evaluation in class room environment.

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UNIT – III: PRACTICING THE TEACHING SKILLS IN GEOGRAPHY

Objectives:

After the completion of the unit, the learners will be able to:

1. To obtain knowledge on the meaning of teaching.
2. To understand the teaching skills.
3. To analyse the major steps in teaching a mini-lesson.
4. To explore, observe and feedback on integration of teaching steps in mini-teaching

INTRODUCTION

An educational institution performs a significant function of providing learning experiences to lead their students from the darkness of ignorance to the light of knowledge. The key personnel in the institutions who play an important role to bring about this transformation are teachers. As stated by NCTE (1998) in Quality Concerns in Secondary Teacher Education, –The teacher is the most important element in any educational program. It is the teacher who is mainly responsible for implementation of the educational process at any stage. This shows that it is imperative to invest in the preparation of teachers, so that the future of a nation is secure. The importance of competent teachers to the nation’s school system can in no way be overemphasized.

MEANING OF TEACHING

Teaching includes all the activities of providing education to other. The person who provides education is called teacher. The teacher uses different method for giving best knowledge to his students. He tries his best to make understand students. His duty is to encourage students to learn the subjects. Teaching means interaction of teacher and students. They participate for their mutual benefits. Both have their own objective and target is to achieve them.

UNDERSTANDING MAJOR TEACHING SKILLS

Teaching skills would include providing training and practice in the different techniques, approaches and strategies that would help the teachers to plan and impart instruction, provide appropriate reinforcement and conduct effective assessment. It includes

effective classroom management skills, preparation and use of instructional materials and communication skills.

1. SKILL OF INTRODUCING

This is an important skill required for a teacher. Well begun is half done is a saying which indicates the importance of introducing a lesson. It is the duty of a teacher to bring the students into the classroom mentally. The skill is intended for making effectiveness in introducing of the content. This is always done at the start of a class. Here teacher gives a brief introduction about the lesson in order to pre-dispose the pupil's mind to it.

There are many ways to present an introduction. Here are a few:

1. Asking questions to get the students thinking about the topic of the lesson.
2. Showing pictures that relate to the lesson topic.
3. Telling a story to show the importance of the topic.
4. Bringing in real objects related to the lesson.

2. SKILL OF EXPLAINING

Teaching is not primarily telling. It's helping other people learn. That means the focus is on the learners, not the teacher. People learn best through experiencing something themselves, so when you are striving to teach something, you are constantly trying to Get into the shoes of the learners so that you can better understand where they are and what they need from you to learn the subject understudy. Explaining can be defined as an activity to bring about an understanding of a concept, principle etc. it is an activity to fill the gap in someone's understanding.

In classroom the teacher explains ideas and concepts. It is the most commonly used skill and is the essence of instruction. Explanation is a key skill. Generally, the skill of explanation is complex Explanation is to explain or to give understanding to another person. It leads from the known to the unknown, it bridges the gap between a person's knowledge or experience and new phenomena, and it may also aim to show the interdependence of phenomena in a general sable manner. It assists the learner to assimilate and accommodate new data or experience.

In a classroom, an explanation is a set of interrelated statements made by the teacher related to a phenomenon, an idea, etc. in order to bring about or increase understanding in the

pupils about it. The teacher should practice more and more of desirable behaviours like using explaining links using beginning and concluding statements and testing pupil understands behaviours like making irrelevant statements, lacking in continuity, using inappropriate vocabulary, lacking in fluency, and using vague words and phrases as far as possible.

A class is not homogeneous group. Some pupils are intelligent some have normal intelligence, some are mature and others are immature. But the teacher has to impart knowledge to all. To present the subject matter in the simplified form before the pupils and making it acquirable is called the skill of explanation. It is necessary in all the subjects. In its absence the presentation of the subject matter is not possible. In the skill of explanation, such words are used in the statements by which the statements exhibit the clarity of their meanings.

The explanation serves two purposes: (1) to introduce the subject by giving some background about its usefulness and application; and (2) to describe the subject in a simple, complete, and tantalizing way. The explanation should create a desire to become proficient in the subject under study

The components of skill of explaining involved

1. Clarity
2. Continuity
3. Relevance to content using beginning and concluding statements
4. Covering essential points
5. Simple
6. Relevant and interesting examples appropriate media
7. Use of inducts, deductive approach, it can be functional, causal or sequential

Characteristics of effective explanation

1. *Coordination in Statements:* Coordination in the statements used during the explanation is very essential; otherwise there will be all hotch- potch.
2. *Relevant Statements:* While presenting the subject matter, the concerned statements should be relevant.

3. *Fluency in Language*: The teacher should use fluent language so that the pupils may listen and understand his thoughts.
4. *Connecting Link*: The use of words, idioms or connecting links such as ‘therefore’ as a result of etc. is essential to link the different thought or statements.
5. *Clear Beginning Statement*: Before starting any explanation, the teacher should make the pupils aware of what he is to teach on that day through a clear beginning statement.
6. *Use of proper Words*: The teacher should use proper words for explaining an object or an event otherwise he would be in a state of confusion

3. SKILL OF QUESTIONING

Successful teaching highly dependent on questioning technique employed in the teaching sessions. Questioning is an important teaching skill that a teacher must learn. The teacher should learn to ask suitable, appropriate and meaningful questions. Questioning is definitely a skill. We can very easily answer a question but it is too difficult to ask a question.

A question is any sentence which has an interrogative form or function. In classroom settings, teacher questions are defined as instructional cues or stimuli that convey to students the content elements to be learned and directions for what they are to do and how they are to do it. Questioning promotes involvement, initiates thinking, creates motivation and enhances learning.

Effective questioning is a real compliment to the instructional skills. It shows the ability to understand the student’s real needs. It shows that for meaning that’s deeper than the spoken message. Effective questioning is a powerful, learned skill.

For students, questioning strategies help to categorize and anticipate exam questions, allowing for more effective preparation. The strategies are also useful for study groups, focusing efforts and allowing members to test each other. They improve the student’s ability to clarify, reorganize, and accurately explain new information. Questioning also aids in self-assessment and self-monitoring.

Basis of Questioning skill

Questioning skills refer to one's ability to formulate and respond to questions about situations, objects, concepts, and ideas. Questions may derive from oneself or from other people.

There are two levels of questions:

1. **Low-level questions refer** to questions that require one to recall information that has been registered in memory. Low-level questions operate on the level of knowledge, drawing from one's knowledge base of a subject.
2. **The High-level questions** encompass questions that require one to process information rather than simply recall it. High-level questions operate on one's ability to comprehend, apply, analyze, synthesize, and evaluate information.

Questioning techniques

Good questions are essential to effective communication between: the teacher and the student: the teacher who lack the skill to effectively question their student create disinterest and boredom on the part of the student. They also ignore a fine opportunity to open communication lines for determining the effectiveness of the lesson. Good questions expand on central thoughts, develops the subject, and not on minor, nice-to-know points. Let us look at some rules for asking questions.

- Distribute questions at random. Do not always ask the same student or those sitting in a particular area. Ask questions of the entire class to promote thinking in all students and get them involved.
- Acknowledge all answers to ensure incorrect or vague answers are clarified.
- Don't use catch or trick questions. Students will not participate and you could possibly lose them if they feel humiliated.
- Allow enough time for the student to think about and give an answer. Do not waste time waiting if the student clearly does not know the answer, but do not cut the student off before ample time is given for the complete thought process or answer period.

•Begin questions with the words that require thoughtful answers, such as, “Why, When, How, What,” etc. Stay away from questions that can be answered with a simple yes or no. This will help stimulate and even guide students thinking.

•Avoid frequent group or choral responses. This method provides answers that are often unintelligible and errors that are hard to pick up.

•Do not waste time “pumping” a student. If the trainee does not know the answer, either offer an explanation or ask the question of another student.

4. SKILL OF VARYING THE STIMULUS

Varying the stimulus is described as a deliberate change in the behaviours of the teacher in order to sustain the attention of the learners throughout the lesson. The variation in the stimulus helps in avoiding monotony and in generating interest among the students which in turn makes learning effective.

Learning in the classroom depends, to a large extent, on the attention of the students on the learning task. It is therefore, essential for the teacher to secure and sustain student’s attention for making his teaching effective. Continuous use of the same stimulus or activity for longer period induces inattention. The inattention is caused in two ways: one is continued focus of the students on the same stimulus for a long time restricts his postural mobility which leads to fatigue. Next is the continued use of the same stimulus for longer duration introduces the element of monotony, which brings in dullness. This will be further aggravated because of the short span of student’s attention. Their attention tends to shift from one stimulus to another frequently. They find it difficult to attend to one stimulus for more than a few minutes. The problem of inattention is a challenge to the teacher, unless he is in a position to secure and sustain student’s attention. It is therefore, essential for the teacher to secure and sustain student’s attention towards the topic of the lesson.

One of the significant ways to secure and sustain students’ attention is to introduce the elements of variation in teaching. The variation can be introduced in several ways depending upon the teaching activity. Appropriate variation in different dimensions can help a teacher to secure and sustain students’ attention. The set of teacher behaviours that tend to secure and sustain student’s attention in teaching learning situation in the classroom constitutes the skill of varying the stimulus.

Some of the components of varying the stimulus are as follows:

1. Movement
2. Gestures
3. Change in voice
4. Focusing
5. Change in interaction pattern
6. Pausing
7. Student's physical participation
8. Aural visual switching

5. NON – VERBAL CUES

Non-verbal communication has been defined as communication without words. They are usually made with the help of the movements of the eye, hand, head, body, and facial expressions. Facial expression will lead to encourage pupil to participate actively in learning situations. Positive non-verbal cues include smiling, nodding the head, a delighted laugh, patting on the shoulder, asking the students to clap. The students can be asked to clap their hands for correct answers given by a student.

Disapproval without using words has the effect on negative reinforcement. Negative non-verbal cues include staring, looking angry, shaking the head, beating, caning, bruising, raising the eyebrows, tapping foot impatiently and walking around etc.

6. SKILL OF REINFORCEMENT

This skill is the most important one than other teaching skills. Reinforcement, the term implies the use of the technique for influencing behaviour of individuals in desired direction. The concept of reinforcement is based on the hedonistic principles, which envisages that all individuals tend to repeat the pleasant experiences and avoid unpleasant ones. The skill is being used to utilize good behaviours of the learners and to avoid the undesirable behaviours of the learners. The teacher would like the student's desirable behaviours and criterion responses to be retained and undesirable behaviours to be eliminated. For reinforcing student's desirable behaviours and criterion responses he uses positive verbal and non-verbal reinforcers. These reinforcers not only strengthen the student's desirable behaviours but also develop confidence in them.

Besides, they enhance their positive self-concept. Absence of positive reinforcers for student's desirable behaviours may erode their confidence and lead to poor self-image. Positive reinforcements encourage students to participate actively in classroom interactions.

It stimulates them to achieve more, thereby, creating a sense of achievement. Skilled use of reinforcers helps a teacher to promote student's learning. The skill of reinforcement refers to the effective use of reinforcers. It, can therefore be defined as 'the effective use of reinforcers to modify student's behaviour in the desired direction'.

7. SKILL OF CLOSURE

This skill is useful for a teacher to close his teaching properly. The teacher is to summarise all the teaching during the period and provide opportunities for the students to correlate the learnt matter with the past and future knowledge. This is to be done by statements or by asking questions.

8. FLUENCY IN COMMUNICATION

Communication in general is a process of sending and receiving messages that enables humans to share knowledge, attitude, and skills. Communication is a series of experiences of hearing, seeing, smelling, tasting, and touching / feeling. Although we usually identify communication with speech, communication is composed of two dimension: verbal and non-verbal. Both verbal and non-verbal plays a significant role in teaching learning process. Verbal communication is divided into Intra verbal: intonation of word and sound and extra verbal: implication of words and phrases, semantics.

The teacher uses knowledge of effective verbal and nonverbal communication techniques as well as instructional media and technology to foster active inquiry, collaboration, and supportive interaction in the classroom.

UNDERSTANDING MAJOR STEPS IN TEACHING A MINI-LESSON

Instructional Procedures and Activities: Provide a detailed discussion of the mini lesson (15-20 min) using the following headings:

MOTIVATION

This step is considered to be the preparatory step, wherein the teacher is trying to prepare the minds of the students ready to receive the subject matter. Hence, this step identifies the mental readiness of the students. The teacher will be able to check the students' entering behavior before he starts teaching the lesson. Thus testing students' previous knowledge develops interest in the minds of students and helps to maintain curiosity of the students.

PRESENTATION

It is the key step and only through which the actual process of teaching is going to take place. Here the aims of the lesson should be stated clearly and the heading should be written on the blackboard. We have to provide situation for both the teacher and the students to participate in the process of teaching and learning. Our ultimate aim of the presentation is to make the concepts understandable to the students. Therefore, use of simple language is recommended. Appropriate and specific examples and illustrations of the concepts will make the understanding better. The interest of the students on the subject matter should be maintained continuously by the way of asking questions from time to time in this stage. Use of instructional aids like charts, audiovisuals, specimen etc in an appropriate manner is strongly recommended during presentation.

INTERACTION

Interaction in the classroom will be done by speaking, sharing opinion, listening to others and establishing a mutual consent. Students in the learning process support when they are done by interacting directly with the object of learning and communicating in groups and also provide the ability of gaining mastery over the subject.

REFLECTION

Students will be given opportunity to express their ideas, experiences and opinions. Students will be cooperative, respect the opinions of others, responsible, honest on information receiving and able to give decisions.

SUMMING-UP

This stage is meant for the teachers to know whether the students have grasped and understood the concepts taught or not. This can be achieved by reviewing the lesson and by giving assignments to the students. Only through this step achieving closure is possible.

MINI-LESSON

- It is a teaching training technique for learning teaching skills.
- It employs real teaching situation for developing skills and helps to get deeper knowledge regarding the art of teaching.
- A mini lesson is a basic precursor to a bigger or broader topic. It is a short lesson that can be taught in just a few minutes, but it can benefit the students in lessons to come.

- For instance, you may teach a basic topic like fact versus opinion by sharing a variety of statements and having students tell you if the statement is fact or opinion.
- This practice may take only 20 minutes, but teaches a valuable lesson to the students and sets the foundation for further discussion of writing styles or reading concepts.

OBSERVATION AND FEEDBACK ON THE PRACTICE OF INTEGRATION OF TEACHING SKILLS

The complex teaching act can be split into component skills, each simple, well defined and limited. These skills can be identified, practiced, evaluated, controlled and acquired through training.

The teaching skills developed through training are to be observed by the peers/ teacher educators. Immediate feedback may be given to the student-teachers individually using the feedback forms.

Distribute a copy of both Assessment formats (skills & steps) to the pre-service teachers (peers)

INTEGRATING THE STEPS IN MINI TEACHING (Assessment by Peers/Teacher Education)				
TEACHING STEPS	AVERAGE (SCORE 1)	GOOD (SCORE 2)	VERY GOOD (SCORE 3)	TOTAL
Motivation				
Presentation				
Interaction				
Reflection				
Summing Up				

Range of scores:5-15

OVERALL ASSESSMENT OF TEACHING STEPS

AVERAGE ____ GOOD ____ VERY GOOD ____

Interpretation of scores

Average : 5

Good : 6-10

Very Good :11-15

Observation and Feedback on Integration of teaching steps in Mini-Teaching

INTEGRATING SKILLS IN MINI TEACHING (Assessment by Peers/Teacher Educators)				
Teaching skills	AVERAGE (SCORE 1)	GOOD (SCORE 2)	VERY GOOD (SCORE 3)	TOTAL
Introducing				
Explaining				
Questioning				
Varying the stimulus				
Non verbal cues				
Reinforcement				
Closure				
Fluency in Communication				

Range of scores:8-24

OVERALL ASSESSMENT OF TEACHING STEPS

AVERAGE ____ GOOD ____ VERY GOOD ____

Interpretation of scores

Average : 8

Good : 9-16

Very Good :17-24

CONCLUSION

Today as never before, meeting our society's challenges demands educational excellence. Reinvigorating the economy, achieving energy independence with alternative technologies and green jobs, and strengthening our health care system require a skilled populace that is ready for the critical challenges we face. There is widespread consensus, however, that our education systems are failing to adequately prepare all students with the essential 21st century knowledge and skills necessary to succeed in life, career and citizenship.

Questions for Discussion and Reflection

1. Briefly explain the major steps in teaching a mini lesson.
2. Write a mini-lesson with multiple teaching skill for class IX in the Geography subject.
3. Explain the mini lesson format.
4. Critically analyse the skill of varying the stimulus.
5. Explain the skill of explaining with its skill components.

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UNIT - IV METHODS OF TEACHING GEOGRAPHY

Objectives:

After the completion of the unit, the learners will be able to:

1. explain the various methods of teaching Geography.
2. identify the different teacher centered methods of teaching.
3. analyse the recent trends in teaching and learning Geography.
4. adopt the small group interactive learning methods.
5. discuss the various learner centered methods .

INTRODUCTION

Different educators have proposed different methods of teaching geography. Knowledge of these methods may help in working out a teaching-learning strategy. It is not an educational sound for a teacher to commit himself to any particular method. A teacher should adopt an approach considering the nature of the children, their interests and maturity and the resources available. The merits and demerits of various methods listed.

A teacher has to make uses of various kinds of methods, devices and techniques in teaching. It is not appropriate for a teacher to commit to one particular method. A teacher should adopt a teaching approach after considering the nature of the children, their interests and maturity and the resources available. Every method has certain merits and few demerits and it is the work of a teacher to decide which method is best for the students.

TEACHER – CENTERED METHODS

1. Lecture Method
2. Demonstration Method
3. Team Teaching

(1) LECTURE METHOD

The lecture method is the most widely used form of presentation. Every teacher has to know how to develop and present a lecture. They also must understand the scopes and limitations of this method. Lecturers are used to introduce new topics, summarizing ideas, showing relationships between theory and practice, reemphasizing main points, etc. This method is adaptable to many different settings (small or large groups).

- It may be used to introduce a unit or a complete course.
- Finally, lectures can be effectively combined with other teaching methods to add meaning and direction. The lecture teaching is favorable for most teachers because it

allows some active participation by the students. The success of the teaching lecture depends upon the teacher's ability to communicate effectively with the class. However, in this method, the feedback is not very obvious and thus the teacher must develop a keen perception for subtle responses from the class-facial expressions, manner of taking notes and apparent interest or disinterest in the lesson. The successful teacher will be able to interpret the meaning of these reactions and adjust the lesson accordingly.

Preparing the Teaching Lecture:

1. Planning
2. Rehearsing
3. Delivering a lecture

Planning:

The following four steps are followed in the planning phase of preparation:

- Establishing the objective and desired outcomes;
- Researching the subject;
- Organizing the material; and
- Planning productive classroom activities

Rehearsing:

After completing the preliminary planning and writing of the lesson plan, the teacher should rehearse the lecture to build self-confidence. It helps to smooth out to use notes, visual aids, and other instructional devices.

Delivering a lecture

In the teaching lecture, simple rather than complex words should be used whenever possible. The teacher should not use substandard English. If the subject matter includes technical terms, the teacher should clearly define each one so that no student is in doubt about its meaning. Whenever possible, the teacher should use specific words rather than general words.

Another way the teacher can add life to the lecture is to vary his or her tone of voice and pace of speaking. In addition, using sentences of different length also helps. To ensure clarity and variety, the teacher should normally use sentences of short and medium length.

For a teacher notes are must because they help to keep the lecture on track. The teacher should use them modestly and should make no effort to hide them from the students. Notes may be written legibly or typed, and they should be placed where they can be consulted easily.

Advantages of the Lecture method

1. Gives chance for the teacher to expose students through all kinds of material.
2. Allows the teacher to precisely determine the aims, content, organization, pace and direction of a presentation
3. Can be used to arouse interest in a subject
4. Can complement and clarify text material.
5. Complements certain individual learning preferences
6. Facilitates large-class communication

Disadvantages of the Lecture Method

1. Places students in a passive rather than an active role, which hinders learning
2. Encourages one-way communication; therefore, the lecturer must make a conscious effort to become aware of student problems and student understanding of content without verbal feedback.
3. Requires a considerable amount of time for unguided student outside of the classroom to enable understanding and long-term retention of content
4. Requires the teacher to have effective speaking skills

(2) DEMONSTRATION METHOD

Defining demonstration of learning is complicated by the fact that educators use many different terms when referring to the general concept, and the terms may or may not be used synonymously from place to place. For example, the terms capstone exhibition, culminating exhibition, learning exhibition, exhibition of learning, performance exhibition, senior exhibition, or student exhibition may be used, in addition to capstone, capstone experience, capstone project, learning demonstration, performance demonstration, and many others. Educators may also create any number of homegrown terms for demonstrations of learning—far too many to catalog here.

Teachers not only use demonstrate specific learning concepts within the classroom, they can also participate in demonstration classrooms to help improve their own teaching strategies, which may or may not be demonstrative in nature. Although the literature is limited, studies show that the effects of demonstration classroom teachers includes a change of perspective in relating to students, more reflection in the teachers' own classroom strategies, and more personal responsibility for student learning.

Advantages of demonstration method

1. It helps in involving various senses to make learning permanent.
2. Through teacher, behavior is autocratic; he invites the cooperation of pupils in teaching learning process.
3. It develops interest in the learners and motivates them for their active participation
4. Any simple or complex skill becomes easy to understand.

Disadvantages of demonstration method

1. It can be use only for skill subject.
2. Only attentions of the learners are invites towards the activity demonstrated. They are free to discuss about it.
3. Due to poor economic conditions of the government schools, there is scarcity of audio Visual aids and equipment and the teacher are not so creative to produce handmade modes for demonstration.
4. There is a general lack of sincerity and diligence among teachers who which to
5. Complete the syllabus or syllabi at the earliest without putting sincere efforts.

(3) TEAM TEACHING

Team teaching involves a group of instructors working purposefully, regularly, and cooperatively to help a group of students of any age learn. Teachers together set goals for a course, design a syllabus, prepare individual lesson plans, teach students, and evaluate the results. They share insights, argue with one another, and perhaps even challenge students to decide which approach is better.

Teams can be single-discipline, inter disciplinary, or school-within-a-school teams that meet with a common set of students over an extended Period of Time. New teachers may be paired with veteran teachers. Innovations are encouraged, and modifications in class size, location, and time are permitted. Different personalities, voices, values, and approaches spark interest, keep attention, and prevent boredom.

The team-teaching approach allows for more interaction between teachers and students. Faculty evaluates students on their achievement of the learning goals; students evaluate faculty members on their teaching proficiency. Emphasis is on student and faculty growth, balancing initiative and shared responsibility, specialization and broadening horizons, the clear and interesting presentation of content and student development, democratic participation and common expectations, and cognitive, affective, and behavioral outcomes. This combination of analysis, synthesis, critical thinking, and practical

applications can be done on all levels of education, from kindergarten through graduate school.

Working as a team, teacher's model respect for differences, interdependence, and conflict-resolution skills. Team members together set the course goals and content, select common materials such as texts and films, and develop tests and final examinations for all students. They set the sequence of topics and supplemental materials. They also give their own interpretations of the materials and use their own teaching styles. The greater the agreement on common objectives and interests, the more likely that teaching will be interdependent and coordinated.

Teaching periods can be scheduled side by side or consecutively. For example, teachers of two similar classes may team up during the same or adjacent periods so that each teacher may focus on that phase of the course that he or she can best handle. Students can sometimes meet all together, sometimes in small groups supervised by individual teachers or teaching assistants, or they can work singly or together on projects in the library, laboratory, or fieldwork. Teachers can be at different sites, linked by video-conferencing, satellites, or the Internet.

Breaking out of the taken-for-granted single-subject, single-course, single-teacher pattern encourages other innovations and experiments. For example, students can be split along or across lines of sex, age, culture, or other interests, and then recombined to stimulate reflection. Remedial programs and honors sections provide other attractive opportunities to make available appropriate and effective curricula for students with special needs or interests. They can address different study skills and learning techniques. Team teaching can also offset the danger of imposing ideas, values, and mindsets on minorities or less powerful ethnic groups. Teachers of different backgrounds can culturally enrich one another and students.

Advantages of Team Teaching

No Students learn at the same rate. Periods of equal length are not appropriate for all learning situations. Educators are no longer dealing primarily with top-down transmission of the tried and true by the mature and experienced teacher to the young, immature, and inexperienced pupil in the single-subject classroom. Schools are moving toward the inclusion of another whole dimension of learning. The lateral transmission to every sentient member of society of what has just been discovered, invented, created and manufactured. For this, team members with different areas of expertise are invaluable.

Of course, team teaching is not the only answer to all problems plaguing teachers, students, and administrators. It requires planning, skilled management, willingness to risk

change and even failure, humility, open-mindedness, imagination, and creativity. But the results are worth it.

Teamwork improves the quality of teaching as various experts approach the same topic from different angles: theory and practice, past and present, different genders or ethnic backgrounds. Teacher strengths are combined and weaknesses are remedied. Poor teachers can be observed, critiqued, improved by the other team members in a nonthreatening, supportive context. The evaluation done by a team of teachers will be more insightful and balanced than the introspection and self-evaluation of an individual teacher.

Disadvantages of Team teaching

Team teaching is not always successful. Some teachers are rigid personality types or may be wedded to a single method. Some simply dislike the other teachers on the team. Some do not want to risk humiliation and discouragement at possible failures. Some fear they will be expected to do more work for the same salary. Others are unwilling to share the spotlight or their pet ideas or to lose total control.

Team teaching makes more demands on time and energy. Members must arrange mutually agreeable times for planning and evaluation. Discussions can be draining and group decisions take longer. Rethinking the courses to accommodate the team-teaching method is often inconvenient.

Opposition may also come from students, parents, and administrators who may resist change of any sort. Some students flourish in a highly structured environment that favors repetition. Some are confused by conflicting opinions. Too much variety may hinder habit formation.

Salaries may have to reflect the additional responsibilities undertaken by team members. Team leaders may need some form of bonus. Such costs could be met by enlarging some class sizes. Non-professional staff members could take over some responsibilities.

LEARNER CENTERED METHODS

Learner-centered methods are those methods where the focus of attraction is learners than teachers. It is through the involvement of learners the method develops. The recent psychological approaches in the classrooms give more importance to learner centered methods than teach centered methods.

(I) PROJECT METHOD

Project method owes its origin to the pragmatic school of philosophy. It was

Propounded by W. H. Kilpatrick and perfected by J. A. Stevenson. The method consists of building a comprehensive unit around an activity that may be carried out in the school or outside. The essence of this method is to carry out a useful task in a group in which all the students work co-operatively. Learning by doing and learning by living are the two basic principles involved and children learn through association, co-operation and activity.

Definition

- “A project is a unit of whole-hearted purposeful activity carried on preferably in its natural setting”. Kilpatrick
- “A project is a problematic and carried to completion in its natural setting” - Stevenson.
- “A project is a bit of real life that has been imparted in to the school” - Ballard.

1. Principles of the Project Method

1. The principle of freedom
2. The principle of reality
3. The principle of activity
4. The principle of experience
5. The principle of utility
6. The principle of interest
7. The principle of sociability

Major steps of the Project Method

1. Providing a situation
2. Choosing and purposing
3. Planning
4. Carrying out the project (executing)
5. Evaluating
6. Recording

Kinds of Project

1. Producer type: Here the emphasis is directed towards the actual construction of a material object or article.
2. Consumer type: Here the objective is to obtain either direct or vicarious experience such as reading and learning stories or listening to music etc.

3. Problems Type: Here the purpose is to solve a problem involving the intellectual process such as determining the e/m ratio of an electron.
4. Drill type: Here the purpose is to attain efficiency in some activity. E.g. swimming, driving etc.

Merits of Project method

1. The method is in accordance with psychological laws of learning
 - i. Law of readiness - pupil are ready to learn creating interest, purpose and life like situation.
 - ii. Law of exercise - by practice we learn things, self-activity on the part of students create experience in later life.
 - iii. Law of effect - child should be satisfied and feel happy in what he is learning.
2. It promotes co-operation and group interaction.
3. It gives training in a democratic way of learning and living.
4. There is no place for rote memorization.
5. Provides dignity of labor, develop respect, and taste for all types of work.

Demerits of Project Method

1. Project absorbs large amount of time and can be used as a part of science work only.
2. Many aspect of curriculum will not yield to project work.
3. Larger projects in the hands of an inexperienced and unskillful teacher lead to boredom.
4. Textbook written on this lines are not available.
5. The method is highly expensive, as pupil has to purchase lot of item, travel and do outdoor work.

(2) PEER TUTORING

- Peer tutoring is a flexible, peer-mediated strategy that involves students serving as academic tutors and tutees. Typically, a higher performing student is paired with a lower performing student to review critical academic or behavioral concepts.
- It is a widely-researched practice across ages, grade levels, and subject areas
- The intervention allows students to receive one-to-one assistance
- Students have increased opportunities to respond in smaller groups
- It promotes academic and social development for both the tutor and tutee

- Student engagement and time on task increases
- Peer tutoring increases self-confidence and self-efficacy
- The strategy is supported by a strong research base

Types of Peer Tutoring

Classwide Peer Tutoring (CWPT) –Class wide peer tutoring involves dividing the entire class into groups of two to five students with differing ability levels. Students then act as tutors, tutees, or both tutors and tutees. In CWPT, student pairings are fluid and may be based on achievement levels or student compatibility.

Cross-age Peer Tutoring (CPT) - Older students are paired with younger students to teach or review a skill. The positions of tutor and tutee do not change. The older student serves as the tutor and the younger student is the tutee. The older student and younger student can have similar or differing skill levels, with the relationship being one of a cooperative or expert interaction. Tutors serve to model appropriate behavior, ask questions, and encourage better study habits. This arrangement is also beneficial for students with disabilities as they may serve as tutors for younger students.

Peer Assisted Learning Strategies (PALS) - It involves a teacher pairing students who need additional instruction or help with a peer who can assist. Groups are flexible and change often across a variety of subject areas or skills. Cue cards, small pieces of cardstock upon which are printed a list of tutoring steps, may be provided to help students remember PALS steps. All students have the opportunity to function as a tutor or tutee at differing times. Students are typically paired with other students who are at the same skill level, without a large discrepancy between abilities.

Reciprocal Peer Tutoring (RPT): Two or more students alternate between acting as the tutor and tutee during each session, with equitable time in each role. Often, higher performing students are paired with lower performing students. RPT utilizes a structured format that encourages teaching material, monitoring answers, and evaluating and encouraging peers. Both group and individual rewards may be earned to motivate and maximize learning.

Same-age Peer Tutoring: Peers who are within one or two years of age are paired to review key concepts. Students may have similar ability levels or a more advanced student can be paired with a less advanced student. Students who have similar abilities should have an equal understanding of the content material and concepts. When pairing students with differing levels, the roles of tutor and tutee may be alternated, allowing the lower performing student to quiz the higher performing student. Answers should be provided to the student

who is lower achieving when acting as a tutor in order to assist with any deficits in content knowledge.

(3) INDIVIDUAL ACTIVITIES

The social aspect of activities is just as important as the creative, leisure and learning aspects. Mentors make great efforts to help people join small friendly groups to share experience and skills and support each other in maintaining the group in the long-term. Some participants are housebound. In these circumstances, mentors encourage activities that people can pursue individually at home. Sometimes, arrangements may be made for an external artist or 'provider' to visit the person for a while. Wherever possible, the participant is introduced to others who might share their interests, by phone, letter, or visiting. Some people prefer to pursue interests on their own.

(4) EXPERIENTIAL LEARNING

The word experiential essentially means that learning and development are achieved through personally determined experience and involvement, rather than on received teaching or training, typically in group, by observation, listening, study of theory or hypothesis, or some other transfer of skills or knowledge. The expression 'hands-on' is commonly used to describe types of learning and teaching which are to a lesser or greater extent forms of experiential learning.

The expression 'chalk-and-talk' (the teacher writes on a board and speaks while learners listen and look and try to absorb facts) refers to a style of teaching or training which contains no experiential learning aspect whatsoever.

Experiential learning, especially used at the beginning of a person's new phase of learning, can help to provide a positive emotional platform that will respond positively and confidently to future learning, even for areas of learning which initially would have been considered uncomfortable or unnecessary.

Experiential learning also brings into play the concept of multiple intelligences - the fact that people should not be limited by the 'three Rs' and a method of teaching based primarily on reading and writing.

Experiential learning is a way to break out of the received conditioned training and teaching practices which so constrain people's development in schools and work.

(5) PROBLEM - SOLVING METHOD

The method is defined as a planned attack upon a difficulty for finding a solution. It is

also defined as the process of raising a problem in the minds of the pupils in such a way as to stimulate purposeful reflective thinking for arriving at a rational solution. In this method, the person uses his ability to analyze a problem that confronts him in order to arrive a solution.

Steps in problem solving method

1. Sensing the problem
2. Interpreting, defining and delimiting the problem.
3. Collecting relevant data
4. Organizing and evaluating the data
5. Formulating tentative solution
6. Drawing conclusion and making generalization
7. Application of generalization to new situation

SMALL GROUP/ WHOLE CLASS INTERACTIVE LEARNING

Small group teaching has become more popular as a means of encouraging student learning. While beneficial the tutor needs a different set of skills for those used in lecturing, and more pertinently, small group work is an often luxury many lecturers cannot afford. A further consideration with small group teaching is the subjective perspective of what constitutes a small group. A lecturer used to taking 400 students in a lecture would define 50 students as a small group, while a lecturer used to a group of 50 students would define 5-10 students as a small group. In a discussion, where participation is assessed some students may not speak up in a group that begins to be get bigger than 10 participants and in addition tutors would find it hard to assess participation by individual students in groups with numbers greater than this.

(1) STUDENT SEMINAR

A seminar either is a form of academic instruction, at an academic institution or offered by a commercial or professional organization. It has the function of bringing together small groups for recurring meetings, focusing each time on some particular subject, in which everyone present is requested to actively participate. This is often accomplished through an ongoing Socratic dialogue with a seminar leader or instructor, or through a more formal presentation of research. It is essentially a place where assigned readings are discussed, questions can be raised and debates conducted. Student seminars are the open presentations done by the students before their peers and teachers. The word seminar is derived from the Latin word seminarian, meaning “seed plot”.

Some Tips for Seminar Preparation

1. Choose a topic: Choose a topic that will sustain your interest and will allow you to exhibit enthusiasm during your presentation.
2. Keep your Audience in Mind: The primary objective in giving a talk should be to communicate an interesting idea to students who attend the seminar. This means that the talk should be delivered in a way that students in attendance understand what you are saying, so be mindful of their background.
3. Tell a story/ anecdote: Begin with solid motivation for your problem and plenty of illuminating examples. Only after your audience understands what your topic is and why they should care about it should you spend time working carefully through the relevant science.
4. Keep timing in mind: Choose a topic that you can motivate and explicate comfortably in this window of time.

Scoring Indicators for Evaluation of seminar

1. Ability to Collect Data: Sufficient, Relevant, Accuracy of facts
2. Ability to prepare seminar Paper: Introduction, Content Organization, Conclusion
3. Presentation: Communication, Competence, Fluency, Spontaneity
4. Understanding the Subject: Involvement in the Discussion, Responding suitably

(2) GROUP DISCUSSIONS

Active learning is implemented by organizing the class into small groups of students who can work together, foster their own learning strategy and create an atmosphere in which information sharing can take place. Instructional techniques involving group controlled learning experiences provide room for the learner's self-development and active participation in the teaching learning process. A discussion is a teaching technique that involves exchange of ideas with active learning and participation by all concerned. Discussion is an active process of teacher-pupil involvement in the classroom environment. This allows a student present its own perspective about something freely. Four basic concepts are to be considered for initiating small group discussion

- Process - the interactions that takes place within the group
- Roles - each group member's specific responsibilities within the group
- Leadership - the capacity to guide and direct others in a group setting
- Cohesion - group members support for one another

(3) MIXED ABILITY GROUPING

It refers to grouping together students of different abilities. Usually this kind of grouping occurs when the group consists of students with different ages with one or two years span. The term “mixed aged grouping” or “heterogeneous grouping” is used for this case but we prefer to use the more general term of “mixed ability grouping” since the basic criterion for grouping is ability and not necessarily age. In mixed ability groups there are some students that are more mature and experienced than other ones and thus they have more advanced ability to acquire knowledge. The main aim of setting up mixed ability groups is not to produce homogeneity of ability in a group as this is the case in ability grouping, but to increase interaction across students with different abilities.

In other words the purpose of mixed ability grouping is for children to benefit by their intellectual and social interaction with other students of their group that have different social behavior and ability to learn. The former reveals the main difference of mixed ability grouping with ability grouping. While grouping children with same ability the goal is to achieve homogeneity of the group and homogenize instruction for students of the group on basis different of grades or ages but based on ability.

RECENT TRENDS

1. Constructivist learning
2. Problem based learning
3. Brain based learning
4. Collaborative learning
5. Flipped learning
6. Blended learning
7. E-learning trends
8. Video conferencing

(1) CONSTRUCTIVIST LEARNING

Constructivism is a learning theory that has its foundation in philosophy and anthropology as well as psychology. The constructivist approach to education attempts to shift education from a teacher-dominated focus to a student-centered one. The role of the teacher focuses on assisting students in developing new insights. Students are taught to assimilate experience, knowledge and insights with what they already know and from this they need to construct new meanings. Constructivist learning is based on students' active participation in problem solving and critical thinking regarding a learning activity which they

find relevant and engaging. They are “constructing” their own knowledge by testing ideas and approaches based on their prior knowledge and experience, applying these to new situations and integrating the new knowledge gained with pre-existing intellectual constructs.

In the constructivist theory, the emphasis is placed on the learner or the student rather than the teacher or the instructor. The learner interacts with objects and events and thereby gains an understanding of the features held by such objects or events. The learner constructs her own conceptualizations and solutions to problems. Learner autonomy and initiative is accepted and encouraged. Exploring or experiencing the physical surroundings, experiential education is a key method of constructivism. To the constructivists, the act of teaching is the process of helping learners create knowledge. In constructivism, thinking learning is also affected by the context, beliefs and attitude of the learner.

There are many different schools of thought within this theory, all of which fall within the same basic assumption about learning. The main two are cognitive constructivism (e.g., Theory of Piaget) and Social constructivism (e.g., Theory of L.S. Vygotsky).

Cognitive Constructivism

Cognitive constructivism is generally attributed to Jean Piaget, who articulated mechanisms by which knowledge is internalized by learners. The process of accumulating the knowledge are through accommodation and assimilation, individuals construct new knowledge from their experiences.

It is important to note that constructivism is not a particular pedagogy. In fact, constructivism is a theory describing how learning happens, regardless of whether learners are using their experiences to understand a lecture or following the instructions for building a model airplane. In both cases, the theory of constructivism suggests that learners construct knowledge out of their experiences. However, constructivism is often associated with pedagogic approaches that promote active learning, or learning by doing. Today constructivist teaching is based on recent research about the human brain.

The major views of constructivism can be summarized as follows:

- Emphasis learning and not teaching
- Encourage and accept learner autonomy and initiative
- Sees learners as creatures of will and purpose
- Think of learning as a process
- Encourages learner inquiry
- Acknowledges the critical role of experience in learning
- Nurtures learners natural curiosity

- Takes the learner's mental model into account etc.

Social Constructivism

Social constructivism maintains that human development is socially situated and knowledge is constructed through interaction with others. It is a sociological theory of knowledge that applies the general philosophical constructivism into the social assumptions of Social Constructivism. Social constructivism is based on specific assumptions about reality, knowledge, and learning. To understand and apply models of instruction that are rooted in the perspectives of social constructivists, it is important to know the premises that underlie them. The most important assumptions of the theory of social constructivism is

1. The assumption that human beings rationalize their experience by creating a model of the social world and the way that it functions
2. The belief in language as the most essential system through which humans construct reality.

(2) PROBLEM BASED LEARNING (PBL)

Problem-based learning (PBL) is a student-centered pedagogy in which students learn about a subject through the experience of solving an open -ended problem. Students learn both thinking strategies and domain knowledge. Problem - based learning (PBL) is an approach that challenges students to learn through engagement in a real problem. A format simultaneously develops both problem solving strategies and disciplinary knowledge bases and skills by placing students in the active role of problem-solvers confronted with an ill-structured situation that simulates the kind of problems they are likely to face as future managers in complex organizations. Problem-based learning makes a fundamental shift from a focus on teaching to a focus on learning. The process is aimed at using the power of authentic problem solving to engage students and enhance their learning and motivation. Several unique aspects define the PBL approach:

- Learning takes place within the contexts of authentic tasks, issues, and problems that are aligned with real world concerns.
- In a PBL course, students and the instructor become co-learners, co-planners, co-producers, and co-evaluators as they design, implement, and continually refine their curricula.
- The PBL approach is grounded in solid academic research on learning and on the best practices that promote it. This approach stimulates students to take responsibility for their own learning, since there are few lectures, no structured sequence of assigned

readings, and so on.

- PBL is unique in that it fosters collaboration among students, stresses the development of problem solving skills within the context of professional practice, promotes effective reasoning and self-directed learning, and is aimed at increasing motivation for life-long learning.

Problem-based learning begins with the introduction of an ill-structured problem on which all learning is centered. Most of the learning occurs in small groups rather than in lectures. Teacher's role is more like that of a facilitator and coach of student learning, acting at times as a resource person, rather than as knowledge-holder and disseminator. Similarly, your role, as a student, is more active, as you are engaged as a problem-solver, decision-maker, and meaning-maker, rather than being merely a passive listener and note-taker.

Characteristics of Problem-Based Learning (PBL)

Problem-Based Learning (PBL) is a pedagogical approach and curriculum design methodology often used in higher education and K-12 standard settings.

The following are some of the defining characteristics of PBL:

1. Learning is driven by challenging, open-ended problems with no one “right” answer
2. Problems/cases are context specific
3. Students work as self-directed, active investigators and problem-solvers in small collaborative groups (typically of about five students)
4. A key problem is identified and a solution is agreed upon and implemented
5. Teachers adopt the role as facilitators of learning, guiding the learning process and promoting an environment of inquiry.

Learning outcomes of Problem Based Learning

A well-designed Problem based learning task provides students with the opportunity to develop skills related to:

- Managing tasks and holding leadership roles
- Oral and written communication
- Self-awareness and evaluation of group processes
- Working independently
- Critical thinking and analysis.

Basic Steps in designing a Problem Based Learning Task

There are some important aspects, which we want to take care before going for a problem based learning task

1. Articulate the learning outcomes of the task. What do you want students to know or be able to do because of participating in the assignment?
2. Create the problem. Ideally, this will be a real-world situation that resembles something students may encounter in their future class or lives. Cases are often the basis of PBL activities.
3. Establish ground rules at the beginning to prepare students to work effectively in groups.
4. Introduce students to group processes and do some warm up exercises to allow them to practice assessing both their own work and that of their peers.

(3) BRAIN BASED LEARNING (BBL)

Brain - based learning refers to teaching methods, lesson designs, and school programs that are based on the latest scientific research about how the brain learns, including such factors as cognitive development-how students learn differently as they age, grow, and mature socially, emotionally, and cognitively. It is totally based on the structure and function of the brain. As long as the brain is not prohibited from fulfilling its normal processes, learning will occur. Brain-based learning is motivated by the general belief that learning can be accelerated and improved if educators base how and what they teach on the science of learning, rather than on past educational practices, established conventions, or assumptions about the learning process. For example, it was commonly believed that intelligence is a fixed characteristic that remains largely unchanged throughout a person's life. However, recent discoveries in cognitive science have revealed that the human brain physically changes when it learns, and that after practicing certain skills it becomes increasingly easier to continue learning and improving those skills.

Instructional techniques emerges from Brain Based Learning

The three instructional techniques associated with brain-based learning:

1. Orchestrated immersion: Creating learning environments that fully immerse students in an educational experience
2. Relaxed alertness: Trying to eliminate fear in learners, while maintaining a highly challenging environment
3. Active processing: Allowing the learner to consolidate and internalize information by actively processing it.

(4) COLLABORATIVE LEARNING

Effective communication and Collaboration are essential for becoming a successful

learner. It is primarily through dialogue and examining different perspectives that students become knowledgeable, strategic, self-determined, and empathetic. Moreover, involving students in real world tasks and linking new information to prior knowledge requires effective communication and collaboration among teachers, students and others. Indeed, it is through dialogue and interaction that curriculum objectives come alive. Collaborative learning affords students enormous advantages, which is not available in traditional instruction.

"Collaborative learning" is an umbrella term for a variety of educational approaches involving joint intellectual effort by students, or students and teachers together. Usually, students are working in groups of two or more, mutually searching for understanding, solutions, or meanings, or creating a product. Collaborative learning activities vary widely, but most center on students' exploration or application of the course material, not simply the teacher's presentation or explication of it.

Collaborative learning represents a significant shift away from the typical teacher centered or lecture-centered milieu in college classrooms. In collaborative classrooms, the lecturing/ listening/note-taking process may not disappear entirely, but it lives alongside other processes that are based in students' discussion and active work with the course material. Teachers who use collaborative learning approaches tend to think of themselves less as expert transmitters of knowledge to students, and more as expert designers of intellectual experiences for students-as coaches or mid-wives of a more emergent learning process.

Essential features of Collaborative Learning

1. A group learning task is designed based on shared learning goals and outcomes
2. Students work in teams to master academic materials
3. Reward systems are group oriented than individual oriented
4. Co-operative behavior involves trust building activities, joint planning and understanding of team support.
5. Students involvement in learning activities are more
6. Encourages students to acquire an active-voice in shaping their ideas

Advantages of Collaborative Learning

1. Promotes social and intellectual involvement
2. Cultivation of teamwork, community building, and leadership skills
3. Enhanced student satisfaction and promoting positive attitudes
4. Open expression of ideas in groups
5. Patience in hearing others

6. Team building
7. Shared responsibility.

(5) FLIPPED LEARNING

Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.

Students at home view flipped Learning Short video lectures before the class session, while in-class time is devoted to exercises, projects, or discussions. The flipped classroom describes a reversal of traditional teaching where students gain first exposure to new material outside of class, usually via reading or lecture videos, and then class time is used to do the harder work of assimilating that knowledge through strategies such as problem solving discussion or debates.

Flipped Classroom and Implications for Teaching

The flipped classroom constitutes a role change for instructors, who give up their front-of-the-class position in favor of a more collaborative and cooperative contribution to the teaching process. There is a concomitant change in the role of students, many of whom are used to being cast as passive participants in the education process, where instruction is served to them. The flipped model puts more of the responsibility for learning on the shoulders of students while giving them greater impetus to experiment. Activities can be student-led, and communication among students can become the determining dynamic of a session devoted to learning through hands-on work.

(6) BLENDED LEARNING

Blended learning is a planned combination of online learning and face-to-face instruction using variety of learning resources. A flexible learning strategy integrates innovative and technological advances of online learning with interaction and participation of traditional face-to-face classroom learning.

Blended learning strategies vary according to the discipline, the year level, student characteristics and learning outcomes, and have a student-centered approach to the learning design. Blended learning can promote learner's access and flexibility, increase the level of active learning, and achieve better student experiences and outcomes. For teachers, blended learning can improve teaching and class management practices. A blend might include:

1. Face-to-face and online learning activities and formats
2. Traditional classes with different modalities, such as regular, weekend, evening, part time, semester
3. Use of technology interfaces like social media, wikis and various web sources
4. Group work, Simulation, debate, Online Assignments, Practical etc.
5. Both usual classroom human factors and digital learning resources of the web
6. Psychological concerns are addressed in the face to face interaction and technological concerns are addressed in the online learning

Blended learning should be viewed as a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically enhanced active learning possibilities of the online environment, rather than a ratio of delivery modalities.

Teachers in the Blended learning modality can

- Foster a class culture of hard work and persistence
- Monitor students throughout the period for motivation and learning
- Intervene to personalize instruction when data shows that students are struggling
- Build personal relationships of trust and caring

(7) E-LEARNING TRENDS

E-learning is the use of electronic media and information and communication technologies (ICT) in education. E-learning is broadly inclusive of all Forms of educational technology in learning and teaching. Technology-Enhanced Learning (TEL), Computer-Based Instruction (CBI). Computer-Based Training (CBT), Computer-Assisted Instruction or Computer - Aided Instruction (CAI), Internet-Based Training (IBT), Web-Based Training (WBT), Online education, Virtual education, Virtual Learning Environments (VIE). E-learning can occur in or out of the classroom.

Synchronous and asynchronous

E-learning may be either synchronous or asynchronous. Synchronous learning occurs in real-time, with all participants interacting at the same time, while asynchronous learning is self-paced and allows participants to engage in the exchange of ideas or information without the dependency of other participant's involvement at the same time.

Synchronous learning involves the exchange of ideas and information with one or more participants during the same period. A face-to-face discussion is an example of Synchronous communications. In e-learning environments, examples of synchronous communications include online real-time live teacher instruction and feedback, Skype

Conversations, or chat rooms or virtual classrooms where everyone is online and working collaboratively at the same time.

Asynchronous learning may use technologies such as email, blogs, wikis, and discussion boards, as well as web-supported textbooks, hypertext documents, audio video courses, and social networking. Asynchronous learning is particularly beneficial for students who have health problems or have childcare responsibilities and regularly leaving the home to attend lectures is difficult.

E-Learning

1. Automation
2. Augmented Learning
3. Big Data
4. Going for Cloud Computing
5. Gamification
6. M - Learning
7. Personalization

(8) VIDEO CONFERENCING

Video conferencing is two-way interactive communication delivered using telephone or Internet technologies that allows people at different location to come together for a meeting. The video conference can be as simple as a conversation between two people in private offices involves several sites with more than one person in large rooms at different sites. A basic video conference setup has a camera and a microphone. Video from the camera and audio from the microphone is converted into a digital format and transmitted to a receiving location using a coding and decoding device, often referred to as a "codec". At that receiving location is another codec device that decodes the receiving digital stream into a form that can be seen and heard on monitors or televisions. At the same time, video and audio from cameras and microphones at the received location is sent back to the original location.

Benefits of Video Conferencing

Video conferencing saves travel time and money. Participants can see and hear all other participants and communicate both verbally and visually, creating a face- to- face experience. PowerPoint and other on screen graphic, as well as other cameras are also available presentation options. People downtime is reduced and productivity gains are achieved by removing the logistics of flight preparations, airport delays, hotel stays, and all

the other inconveniences of business travel. In distance education, video conferencing provides quality access to students who could not travel to or could afford to relocate to a traditional campus. Video conferences can also be recorded and made available in a variety of ways. Besides distance education, other applications include meetings, dissertation and thesis defenses, tele-medical procedures, and online conferences.

People use video conferencing when:

- A live conversation is needed.
- Visual information is an important component of the conversation.
- Parties of the conversation cannot physically come to the same location.
- Expense or time of travel is a consideration.
- Examples of how video conferencing can benefit people around campus.
- Guest lecturer invited into a class from another institution.
- Researcher collaborates with colleagues at other institutions on a regular basis.
- Thesis defense at another institution.
- Administrators from different parts of campus need to collaborate on administrator issues such as a campus strategic plan.
- Researcher needs to meet with a review committee about a grant.
- Student interviews with an employer in another city.

Conclusion

Every learner learns on his/her own unique way and strategy. The learning is taking place with an individual speed, depending on student's attitude and level of prerequisite knowledge. In designing the teaching process, teacher should take into consideration differences among the students in the target group. Enough of space must be provided for processing and memorizing the presented information. Combination of different teaching methods can produce quality in fulfilling all teaching functions.

Questions for Discussion and Reflection

1. Explain the teacher centered methods of teaching Geography.
2. Critically analyze the recent trends in teaching Geography.
3. Explain briefly the learner centered methods of teaching Geography
4. Discuss the interactive methods of teaching geography.

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UNIT - V RESOURCES FOR TEACHING GEOGRAPHY

Objectives:

After the completion of the unit, the learners will be able to:

1. explain the various types of resources for teaching Geography.
2. adopt the community resources in the instructional process.
3. utilize the information and communication technology resources in teaching
4. identify the needs of resources in teaching Geography.

INTRODUCTION

Teachers use a wide range of stimulating and exciting materials to teach the concepts outlined in the curriculum to ensure that students are actively involved in their learning. In time, students and parents witness a shift from textbook based to standards based instruction, bringing educational practices in line with the best school systems around the world. The power of the learning environment to influence and promote learning is significant and the learning spaces and learning resources provide important opportunities for students to explore ideas and knowledge, collaborate, solve problems and develop knowledge and skills. Carefully selected digital technology resources are used to enable children to access global connections and resources while also encouraging new ways of thinking. The introduction of technology rich environments and multi-sensory resources can also be useful in reaching each student strengths and engaging students to become life-long learners.

PRINT RESOURCES

Print resource refers to paper publications circulated in the form of physical editions of books, magazines, journals and newsletters. Print resource improves the students reading skills and vocabulary development. It is a good source of additional information for teachers. It helps the teacher for both lecture and Linguistic. Lecture approach - source of information for the teacher's lessons .Linguistic Approach - help to develop ones vocabulary and reading skills.

(I) NEWS PAPERS

Teachers are always looking for new ways to create student interest in current events. One of the best ways to do so is to utilize newspapers in the classroom. In the past teachers

would deem newspaper reading as boring, and leave it to a once a month lesson. Using newspapers in the classroom is an effective classroom teaching tools for several reasons:

1. It makes learning fun.
2. It's an inexpensive way to educate.
3. It's adaptable for all grades and curriculum.
4. Provides good reading habits.
5. Has a section of interest for everyone like comics and sports.
6. Reinforce math concepts by challenging students to find and circle as many numbers as they can in the newspaper in two minutes. Then challenge them to find and circle as many math words as they can.
7. Make the students to solve the Sudokku and Puzzles.

Tips for Using the Newspaper in Class

1. Allow students time to read the paper.
2. Focus on one section at a time.
3. Introduce new vocabulary words first.
4. Explain the functions of a newspaper and how it works before you start a lesson.
5. Use the sports section to reinforce math concepts.

(II) JOURNALS

An academic or scholarly journal is a periodical publication in which scholarship relating to a particular academic discipline is published. Academic journals serve as permanent and transparent forums for the presentation, scrutiny and discussion of research. They are usually peer-reviewed or refereed. It is a daily record of news and events of a personal nature. Newspaper or magazine that deals with a particular subject or professional activity. Some of the Geography journals are:

a) Teaching Children Geography (TCG)

It is an official journal of the National Council of Teachers of Geography and is intended as a resource for elementary school students, teachers, and teacher educators. The focus of the journal is on intuitive, exploratory investigations that use informal reasoning to help students develop a strong conceptual basis that leads to greater geographical abstraction.

b) Geography Teaching in the Middle School (GTGS)

It is an official peer-reviewed journal of the National Council of Teachers of Geography and is intended as a resource for middle school students, teachers, and teacher educators. The focus of the journal is on intuitive, exploratory investigations that use

informal reasoning to help students develop a strong conceptual basis that leads to greater geographical abstraction.

(IV) GEOGRAPHY ENCYCLOPEDIAS

An encyclopedia is a type of reference work holding a comprehensive summary of information from either all branches of knowledge or a particular branch of knowledge. Encyclopedias are divided into articles or entries, which are usually accessed alphabetically by article name. Encyclopedia entries are longer and more detailed than those in most dictionaries generally speaking, unlike dictionary entries, which focus on linguistic information about words encyclopedia articles focus on factual information concerning the subject. Some of the Geography encyclopedia are the Encyclopedia of Geography (also EOM and formerly Encyclopedia of Geography) is a large reference work in geography and Britannica encyclopedia for the history of Geography

AUDIO RESOURCES

Audio Resources:

Audio aids are important tools for teaching learning process. It helps the teacher to present the lesson effectively and students learn and retain the concepts better and for longer duration. Use of audio aids improves students' critical and analytical thinking. It helps to remove abstract concepts through visual presentation. However, improper and unplanned use of these aids can have negative effect on the learning outcome. It develops the students listening skills as well as make learning more effective. In this approach students think deeply with these learning materials.

(i) Radio talk

It is a radio format containing discussion about topical issues. Most shows are regularly hosted by a single individual, and often feature interviews with a number of different guests. Talk radio typically includes an element of listener participation, usually by broadcasting live conversations between the host and listeners who "call in" (usually via telephone) to the show. Listener contributions are usually screened by a show's producer(s) in order to maximize audience interest and, in the case of commercial talk radio, attract advertisers. Generally, the shows are organized into segments, each separated by a pause for advertisements; however, in public or non-commercial radio, music is sometimes played in place of commercials to separate the program segments. Variations of talk radio include conservative talk, hot talk, liberal talk (increasingly known as Progressive talk) and sports talk.

(ii) Audio tapes

Audio tapes support students learning in the following ways. It

1. provides diverse teaching techniques for learning
2. gives the teacher a voice– this can reduce the feeling of isolation for cloud based students, but also helps located students feel connected
3. can be used to simplify and explain complex problems
4. can allow students to access the learning materials as often as required
5. allows students to learn at their own pace, with instant playback, rewind and pause
6. reduces frequently asked questions from students
7. can be re-used

(iii) DVDs and CDs

The introduction of educational CDs and DVDs for school children has made studies very interesting for students as well as parents. These tools provide children with real life examples helping them to easily understand what is being conveyed to them. These CDs and DVDs help the children in their overall development by familiarizing them with technology and their uses.

Today there is a wide range of educational CDs and DVDs for school children of all ages, available in various stores as well as online. They help in transforming our passive system of learning into an interactive one with the help of high quality graphics and videos along with text that help children retain things in their memory for a long time.

The benefits of learning through educational CDs and DVDs are:

1. They provide a good overall experience for children.
2. Preschooler can easily learn reading skill with the help of this digital tool.
3. School giving children can easily understand the concepts through various graphical representation and illustrations.
4. Practice session using the tools can enhance their knowledge considerably on various topics.

VISUAL RESOURCES

(i) Pictures

Pictures make concepts memorable and employable. When someone views the image, they rapidly associate it with the principle. This enables imagery to play a primary role in creating culture in an organization because every culture speaks a language. A set of images can quite literally represent an entire value system. There is significant impact on the learner

when a visual aid is connected to a verbal explanation. It actually speeds up the learning process.

(ii) Charts

The primary advantage of using a chart in a presentation is that they help the audience to visualize the point of the presentation. It emphasize the main point, make the data more convincing, provide a compact way of presenting information and help audiences stay engaged. Disadvantages of using chart includes being time consuming to construct and costly to produce. They also require technology that some may lack.

(iii) Posters

Poster is the process of showing the content and the findings of a topic to an audience or a group of audiences at different times. It is often used to assess student learning in group research projects. Peer and tutor assessment can be used as part of the grading process. Poster assessment encourages creativity. Poster assessment is short and succinct. This would require the students to think distinctively and select the important factors that need to be shown. The ability to summarize is important. Poster assessment can be assessed by peers at different times even without the presence of the creator.

(iv) Photographs

A Photograph is worth a thousand words through which a complex idea can be conveyed with just a single still image. Pictures make it possible to absorb large amounts of data quickly. Using photographs for explaining complex phenomena is one of the teaching aids of modern education system all over the world. As the world is changing day by day so are the methods of instructions as the modern curriculum requires conceptual elaborations. Visual aids have the tendency to materialize the thoughts of students in the form of graphics to give thoughts a concrete frame of reference. Use of photographs is important for students because they are more likely to believe findings when the findings are paired with colored images describing complex situations during learning as opposed to other representational data such as complex book text.

(v) Flash cards

There are many ways to help children learn math facts. Flash cards can be effective if it is used at right time. It is important to help children build a conceptual understanding of math facts so that one can transfer knowledge across contexts. After conceptually understanding math facts, flash cards can helps to improve math fact fluency by isolating individual concepts, encouraging to focusing attention and effort on specific components of complex geography problems.

A flashcard or flash card is a set of cards bearing information, as words or numbers, on either or both sides, used in classroom drills or in private study. One writes a question on a card and an answer overleaf. Flashcards can bear vocabulary, historical dates, formulas or any subject matter that can be learned via a question-and-answer format. Flashcards are widely used as a learning drill to aid memorization by way of spaced repetition.

(vi) MAPS

Meaning of map

A map is an accurate representation plain surface in the form of a diagram drawn to scale, the details of boundaries of continents, countries etc. Geographical details like location of mountains, rivers, altitude of a place, contours of the earth surface and important locations can also be presented accurately with reference to a convenient scale with suitable color scheme.

Significance of map study

In social studies the learning of many geographical, historical and economic concepts becomes unreal, inadequate and incomplete without map media. A resourceful teacher by motivating the pupils will turn the fear of map into the genuine love for them. This, however, pre-supposes the invariable uses of maps at every possible opportunity by the teacher in the classroom, and the possession of individual atlases by the pupils. Every student should also know certain elementary aspects of map preparation such as copying, enlarging, reducing, symbolizing, coloring, gardening and preparation of map. Most of the students develop a version to maps becomes they do not know skills relating to map preparation.

Identification of various aspects of maps

1. Understanding and interpreting the key of index.
2. Understanding the lines- boundary lines, lines of communication, lines indicating the rivers, contours, meridians and parallels.
3. Understanding the colors, tints, shadows, and symbols in a map or globe.
4. The top of every map is not north, but the direction of northern pole is north.
5. Globe is the only real map. All the flat surfaces are distorted representations of earth in one way or other.

6. Distinction between the various types of maps such as relief, political, distribution maps, etc.

7. Understanding of the position of earth in the universe.

Many students suffer from a notion that the earth leans in June towards the sun northwards and in December southwards and thus the seasons are formed. Earth never dances that way. The student shall understand that the inclination of earth is constant and the learning effect changes due to its rotation around the sun.

Variety of maps

1. **Relief maps (regional and the world).** This requires the knowledge of colors, contours, symbols and the other connected ethics of map making.

2. **Historical maps.** Maps in history reveal the changing times, the growth and decline of various kingdoms of man's life. Knowledge of lines of boundaries and other symbols is necessary. Every geography map shall contain some important related aspects also.

3. **Distribution maps.** Generally, the student shall associate with the following types of distribution maps:

a. Vegetation maps

b. Population maps

c. Economic maps

d. Statistical maps

e. Dot maps

f. Pictorial maps

g. Language, race and other human division maps etc.

4. **Geographical maps.** Contour maps, weather maps, seismological maps archaeological maps, rainfall maps, geological maps etc

The uses of maps:

A. With color as a basic symbol, maps may be used to express:

1. Land- use patterns

2. Topography
3. Political divisions
4. Political relationship
5. Economic relationship
6. Cultural relationship
7. Religious relationship
8. Population density
9. Climate or aspects of climate
10. Distribution of resources.

B. Through the use of conventional or invented symbol, maps may be used to express:

1. Any of the ideas listed for color, but with substitutions of crosshatching or visual textures.
2. Production, total of selected items.
3. Distribution of fauna and flora.
4. Clothing, shelter and basic foods in various areas, total or selected.
5. Population.
6. Military power.
7. Routes of all kinds.
8. Centers of commerce.
9. Communication of various sizes.
10. Points of historical interest.

C. Three- dimensional maps most adequately express topography and land-use patterns.

D. Rearranged maps (maps in which location and size of nations and continents are distorted to express significant relationship) are particularly good for showing:

1. Political relationships.

2. Economic relationships.

3. Cultural relationships.

4. Religious relationships.

SPECIMENS

These are also effective teaching aids in geography. They become more potent when used with other teaching aids such as pictures, maps, charts.

They say ‘A bird in hand is worth two in the bush.’ This saying acquires a new meaning when it is applied to the use of objects and specimens.

Specimens may be defined as typical objects or parts of objects which have been removed from their natural setting and environment.

These teaching aids are powerful interest-arousing devices which possess the capacity of bringing into play all the five senses- touch, sight, hearing, smell and taste.

MODELS:

Original materials are quite rare in geography. Even those which exist are within easy reach of all schools. Therefore, the models- the three dimensional representations of real things- can be used with great advantage in the teaching of geography.

A model may be defined as a replica of an object as it is or in a reduced or in an enlarged form. Models can afford a substitute for most of the geographic remains. They give a vivid impression of the real.

Use of models in teaching helps in visualizing the geographical reality. Sometimes, models may be the shortest and easiest way of presenting certain concepts to pupils.

Models can help geography teachers to teach according to the source method. The use of models is especially useful in primary and junior secondary classes.

Types of Models:

A variety of models can be used for illustrating geography.

- i. Models of human dwellings, crops, food, vegetables, utensils, ornaments, costumes, etc., in different ages are very useful in geography teaching. They may also be used for class dramatizations and exhibitions, besides ordinary geography teacher.

- ii. Models of places which are sites of events of the greatest geographical importance.
- iii. Models illustrating agriculture, means of transport and communication through the ages, can create an interest in the process of development and impress upon the students the extent of man's progress.
- iv. Models of documents can go a long way in teaching Geography by the source method.
- v. Models of agriculture and sculpture are very useful in developing proper concepts. Such models are available from commercial firms.
- vi. Models of food shelter crops during the different ages can help in creating proper awareness among pupils regarding the process of agricultural development.

Qualities of a good Model

1. Accuracy
2. Simplicity
3. Utility
4. Interesting
5. Inexpensive and easily available
6. Participation of the whole class

Principles of Use

- a) Models should be used in class in an interesting manner.
- b) Everyone in the class must be able to see the model easily, and preferably, the entire class should see it at the same time.
- c) Models should be used in conjunction with other learning materials as text, films, dramatization and resource persons etc.,
- d) Students should be encouraged to examine the models, ask questions and make generalization.
- e) Students should be encouraged to produce models to illustrate many of the objects, concepts.

ICT RESOURCES

(i) Radio

Radio has been used in different formats for educational purposes the world round. Radio technology was first developed during the late nineteenth century and came into popularity as an educational medium during the early twentieth century. Although often

overshadowed as educational medium vis-à-vis other technologies such as television, radio remains a viable medium that has proven educational worth in terms of both pedagogical importance and geographical reach. Radio is capable of delivering high quality educational programming to highly diversified audiences located across broad geographical expanses – all at a low per unit production cost. Three main advantages of radio: (1) improved educational quality and relevance; (2) lowered per student educational costs; and (3) improved access to education, particularly for disadvantaged groups.

(ii) Television

When teachers use educational television programs during class, the relationship between teachers and student changes. Usually the status quo of the classroom is the teacher imparts knowledge while students absorb the information. Educational programs change the status quo by, in a way, making the educator and children peers who can share and discuss the viewing experience. Teachers can take advantage of this shift in roles by encouraging small group discussions after watching the show. Educators can set specific goals or activities for students in these small groups, which allow them to explore their own questions and share their ideas on the given topic with their classmates. The instructor can then ask one member of the small group to share their team's insights with the rest of the class, strengthening the absorption of knowledge.

(iii) Internet

The internet has a lot to offer the teacher. There are authentic resources and materials, places where you can find prepared lesson plans, ideas and worksheets. The advantages of the internet to teachers include

- The incredible expanse of the internet means the teacher has the ability to tailor lessons very specifically to students' needs and interests. Learners tend to respond better when they feel involved and engaged in the subject and the extent of the web means that if you can find out what the students are interested in, you can find it on the web.
- Much material is modern and up to date, which helps motivate students. Good web sites continually update their material.
- Students enjoy using the net in their free time, and will appreciate its use in class
- It's a dynamic medium involving movement from site to site, promoting decision-making and learner independence.

The internet contains a lot of resources that teachers can access and use to prepare teaching materials. These range from sites specifically designed for teachers and learners to sites from national and international newspapers, museums, galleries and so on. Teachers can use these materials much the same way as they would other print-based resources, to create worksheets. But if teachers are fortunate enough to have access to a computer room in their school then it is possible to use the internet with students during a class, exploiting the net as a dynamic medium.

Using the internet brings the 'real world' into the classroom and gives the students an opportunity to explore learning in a different way. However, having students facing a computer rather than the teacher, means teachers of internet lessons do need to be vigilant.

(iv) Multimedia

One of the techniques to improving the students' meets the academic needs and helps them developing geographical skills is providing multimedia during the process of teaching and learning in the classroom. *It* means the use of electronic media to store and experience *multimedia* content. *Multimedia* means that computer info can be represented through audio, graphics, image, video and animation in addition to traditional media. Multimedia classroom provide the students chances for interacting with diverse texts. The writing aims to find out some advantages of the use of multimedia in the classroom. Through the media the teacher could give more opportunity to students to express their opinions and enjoy during the course. The highly presence and motivation also bring positive aspects to students so that they can improve their skills.

(v) Interactive white board

We connect the white board to a computer and share documents, websites and even play games. With a large touch screen, students will be excited to come up to the white board to help complete notes, do examples or take part in one of the many interactive games and demonstrations that can be used.

COMMUNITY RESOURCES

Community experiences can enrich social studies in instructions in ways more than one. To achieve the purposes of social studies, the child must, become a real part of the community in which he lives, interact with it and contribute to it. To become an effective citizen, the child must become a responsible member of community with civic attitudes and

ideals compatible with the spirit of democracy. There is no more effective way of becoming this kind of person than through practicing what such a person will do.

A variety of community experiences offer the child the laboratory in which he may experiment with life in the community and begin to find his place in it. It is good to note that it is impossible to separate the school from the community. They are glued together the aspirations of the community are the manifestations of the school system. The idea of making the community the best of the school and the school the best of the community represents a fruitful and essential extension of accepted educational thinking and practice. In order to nourish and invigorate democracy, community study and service through school education must be made essential. This movement is the most significant single development of its kind in our generation, and it seem destined to grow greatly with continuing sound experimentation at all school levels, in all teaching field, with all types of students, and in all community areas – local, regional, national and international. The most important community resources for teaching Geography are Field trips, Geography Exhibition, Geography Lab, Geography Resource Centre and Geography Club.

(i) Field Trips

Field trips is undertaken for securing information, changing attitudes, awakening interest, developing appreciation, promoting ideals, enjoying new experiences. They can initiate a unit of study, they can be a part of the core of it or they can give it the finishing touch. They are a very good means of getting knowledge first hand of confirming and supplementing second hand knowledge. They are a means for sharpening observation, testing principles and doing everything.

Field trips are useful for educational purposes in many ways:

1. They stimulate imagination and learning by providing sensory perceptions
2. They integrate classroom instruction by exposing the artificially of traditional subject matter divisions and enable the pupils to view facts and forces as they exist in their everyday relationship in living communities.
3. Through the filled trips, the students may come to realize community in ways which bookish learning cannot by its very nature allow.
4. They enable the pupils to learn the art of living with others such as travelling in the same conveyances, sharing rooms, sitting at the same table.

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5. They expand emotional and intellectual horizons by making them acquainted with people whose manner, customs, living standards, outlook and interests may be quite different from their own.

(ii) Geography exhibitions/fair

It is important for the faculties to **support the kids** in presenting something that they have learned in the most beautiful manner. There are certain benefits of organizing such exhibitions in schools. Students get a platform to show what they have learned and what they are good at, as well.

There are many students who always try to implement the things that they learn and they find these **platforms of exhibitions** a great way to showcase what and all that they have tried. It is always good to give the students a chance for implementing the things that they have learned and also to *apply their ideas and present things differently* in their own unique way.

It makes the students really creative and they have practical knowledge to learn what they read. It increases their thirst for knowledge and drives away their boredom and monotony. It has become a tradition in our educational field that students need not see, learn and practice the things they deal with practically. Arranging regular geography fair can contribute a great deal to sensitize their desire and interest for science and geography. Students of this age want to create something. It is quite natural. When they get chance for creation, definitely it exercises a profound impact on their overall learning. It also helps develop the social skills of learners as it increase interaction and relations with local community which is a big part of learning.

(iv) Geography Club

The Geography club plays an important role in creating interest in geography in schools. This helps the students in having an idea of the practical utility of geography in addition to creating their interest in Geography.

Importance of the club:

1. Geography Club is useful in arousing and maintaining interest in Geography.
2. Gifted students get an opportunity to satisfy their needs and interests by actively participating in the activities of geography clubs.

3. It is helpful in making proper utilization of leisure time.
4. The students get an opportunity of geographical hobbies, recreational geography, geographical projects, geographical games, geographical discussions and debates, and geographical innovations.
5. It provides an opportunity to read geographical literature.
6. It provides an opportunity of leadership, cooperation and joint responsibility

Organization of Geography Club

Geography Club will be a great help in teaching of Geography. Such a club should be run by the students under the guidance of the teacher. Geography Club is an organization of the students, by the students, for the students. For proper running of a club the most important thing is the preparation of a draft constitution of the club. This draft be prepared by the Geography teacher in consultation with the head of the institution. This draft constitution should provide all important details about the name of the club, aims and objectives of the club, details regarding membership and the fee etc. For efficient and successful working of Geography club an expert body has suggested the organization i.e 1) Patron 2) In-charge 3) Staff advisor 4) Associate Staff Advisors. The club may have an elected/ nominated executive committee amongst the students i.e. 1) President 2) Vice-president 3) Secretary 4) Treasurer.

Activities of the Club:

1. Arranging lecturers by renowned Geography Teachers or Scholars.
2. Celebrating days and events pertaining to the history of Geography or men of Geography.
3. Organizing Geographical competitions.
4. Organizing recreational activities in Geography.
5. Preparing Geographical aids and illustrations.
6. Organizing Geographical exhibitions or fairs.
7. Geographical articles for the school magazine.
8. Organizing seminars and career courses relating to Geography.

(v) Geography textbook

The geography textbook is an important source for learning geography and it plays a key role in effective teaching and learning. A textbook should stimulate reflective thinking and develop problem-solving ability among students. The textbooks should present real

learning situations, which are challenging and interesting for the students and should not render itself as a means of rote learning.

Text books and teachers' guides occupy a unique place in the teaching learning process. Text book are an indispensable part of primary and secondary education. The text book is a teaching instrument. It is not only a source of information, but a course of study, a set of unit plans and learning guide. It helps to revise and reinforce the language material already taught. In the absence of any other instructional material, the text book becomes a potent tool in the hand of a teacher to teach the skill of a language and the more so of a foreign language.

Qualities of a Good Geography Textbook

The qualities of a good textbook in geography can be broadly classified under Physical features, Author, Content, Organization and presentations, Language, Exercise and illustration.

(i) Physical features:

1. Paper: the paper used in the textbook should be of superior quality
2. Binding: it should have quality strong and durable binding
3. Printing: it should have quality printing, bold font and easily readable font.
4. Size: bulky and thick. It should be handy
5. Cover: it should have an appealing and attractive cover page.

(ii) Author

1. Qualified author should write it
2. Experienced teacher should write it
3. Competent teachers should write it
4. It should be written by committee of experts constituted by the state government
5. For the authors, certain minimum academic and professional qualifications may be prescribed.

(iii)Content

1. It should be child centered
2. The subject matter should be arranged from simple to complex and concrete to abstracts.
3. The subject matter should create interest in the pupil.
4. It should be objective oriented
5. It should be written according to prescribed syllabus
6. It should satisfy the demands of examination

7. The answers given at the end of each section should be correct
8. It should include the recent developments in the geography relating to the content dealt with.
9. Oral geography should find its due place in the textbook.

(iv) Organization and presentation

1. It should provide for individual differences.
2. There should be sufficient provision for revision, practice and review.
3. It should stimulate the initiative and originality of the students
4. It should offer suggestion to improve study habits.
5. It should facilitate the use of analytic, synthetic, inductive, deductive, problem solving and heuristic approaches to teaching.
6. Content should be organized in a psychological consideration.
7. Content should be organized in a logical way.
8. It should suggest project work, fieldwork and laboratory work.

(v) Language

1. The language used in the textbook should be simple and easily understandable and within the grasp of the pupils
2. The style and vocabulary used should be suitable to the age group of student for whom the book is written.
3. The terms and symbols used must be those, which are popular and internationally accepted
4. It should be written in lucid, simple, precise and scientific language.

(vi) Exercise and Illustrations:

1. The illustrations should be accurate
2. The illustrations should be clear and appropriate
3. It should contain some difficult problems
4. It should contain exercises to challenge the geographically gifted students.
5. There should be well-graded exercises given at the end of every topic.
6. The exercise should develop thinking and reasoning power of the pupils.

Qualities of a Geography Teacher

A Geography teacher should

1. motivate and engage the students.
2. convey the beauty of the subject.
3. encourage their students to go beyond the classroom with their learning.

4. help them feel confident in their geographical abilities.
5. have sound subject knowledge.
6. make the subject easier by adopting suitable strategy.
7. provide guidance and support to the students while solving the problem.
8. provide alternate strategies to help struggling students grasp difficult concepts.
9. have good attitude and actions.

Conclusion

Imagination and creativity in using community resources can help students connect school science and geography with applications in the community, as well as helping students better learn basic concepts. Children learn science and geography from many sources, in a range of different ways, and for a variety of purposes. Taking students out onto the school grounds, exposing them to innovative materials, or inviting guests who can give unique insights are a few ways to increase their learning experiences. Teachers should be well trained through in-service training to maximize the benefits of using these aids. The curriculum should be designed such that there are options to activity based learning through audio-visual aids. In addition, government should fund resources to purchase audio-visual aids in schools.

Questions for Discussion and Reflection

1. Discuss the effect of ICT resources for teaching Geography.
2. What are print resources? Explain the need of print resources for teaching Geography.
3. Analyze the various types of resources in teaching Geography.
4. Bring out the need for community resources in the Geographical instructional process.
5. Explain the different types of audio and video resources with examples.

References:

1. National Council of Teachers of Geography. (2000). Principles and standards for school geography. Reston, Virginia: NCTM.
2. <http://www.geography.com>
3. <http://www.nieonline.com/sentinel/downloads/teacherguides/mathinthenews.pdf>
4. <http://mathedu.hbcse.tifr.res.in/geography-laboratory/>