MODULE FOR METHODS OF TEACHING SCIENCE, MATHEMATICS, HUMANITIES AND SOCIAL SCIENCES, AND LANGUAGES IN HIGHER EDUCATION

Dr. Sunil Kumar Singh

'Module for methods of teaching science, mathematics, humanities and social sciences, and languages in higher education' is a book for professionals curious to read and learn about the teaching methods. It will not only help all professionals in higher education in particular, but also anyone who wants to improve the communication skills to deliver any content to specific audience about the subject content in respective disciplines and even beyond them. It has been written in form of a self-instructional module. The reader can use any method or amalgamation of methods given in different units/sections of the module distinctly or in an integrated manner to practice and become an effective communicator. This will enable a practitioner to improve the learning outcomes among the learners. It will also enable the teacher to improve oneself as a professional.

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SELF INSTRUCTIONAL E-MODULE

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Module for Methods of Teaching Science, Mathematics, Humanities and Social Sciences, and Languages in Higher Education

About this Module :

This module has been designed for the students, researchers and teachers in higher education learning and teaching in the disciplines of Science, Mathematics, Humanities and Social Sciences, and Languages. The sole purpose of the module is to equip the learner whosoever to get acquainted with the teaching methods suitable for use in higher education teaching-learning process. It will enhance the classroom communicative skills of the learner, and also their professional teaching competency in classrooms. The module related structure and units have been briefly described here for easy comprehensibility.

Module Structure :

This module is a sequenced write-up of contents on teaching methods related materials developed to learn various types of teaching methods for teaching Mathematics, Science, Humanities and Social Sciences, and Languages at various levels of higher education.

This learning module contains :

i. Learning outcomes
ii. Directions for use
iii. Learning materials to help the learner to read, understand and learn.
iv. Self-Check exercises for the learner to assess oneself about learning of the read content.
v. Points for discussion to help the learner think, discuss, take note and practice.

Module Units :

This learning module is divided into following four units :

Unit-1 : It deals with the ‘Methods of Teaching Science in Higher Education’.

Unit-2 : It deals with the ‘Methods of Teaching Mathematics in Higher Education’.

Unit-3 : It deals with the ‘Methods of Teaching Humanities and Social Sciences in Higher Education’.

Unit-4 : It deals with the ‘Methods of Teaching Languages in Higher Education’.

Each of the above units generally includes the following :

1. Materials for you to read, comprehend and explore.
2. A Self-Check exercise to allow you to work with the concepts and resources, and
3. An activity such as a discussion where you interact with the other learners/ teachers/ peers in a small group.

Contents

RATIONALE AND LEARNING OUTCOMES OF THE MODULE FOR METHODS OF TEACHING

- **Rationale :**

The general perception among learners and teachers is that, teaching different subjects like Science, Mathematics, Humanities and Social Sciences, and Languages at various levels of higher education simply involves learning the subject content and to deliver the same anyway to the learner in the classroom. However, there exists a significant difference between delivery of the subject content and communicating the same to the learner. Teaching cannot happen without communication with the help of skills, techniques, tactics, methods and strategies to be adopted in the real context. Hence, to communicate effectively, there are different ways of achieving the pre-decided instructional objectives. These all the ways and means including skills, techniques, tactics etc. used by the teacher are part of teaching methods. One has to accomplish these teaching methods. It involves timely planning of learning activities, organization of the available resources and regular assessment in consonance with the strategy chosen for the specific context. All these have to be done essentially by the teacher right from the foundational stage to the higher education (general and professional) uniformly.

Today the number of aspirants for higher education is increasing exponentially. Owing to this, higher education and teaching in universities and colleges is a matter of concern as never before. Hence, teachers in higher education need dual refinement i.e. to have expertise in the subject content (**What to teach**?), teaching skills and methods (**How to teach**?), simultaneously. Therefore, the demand for teaching skills and methods has attracted global attention in recent decades. Hence this module is primarily aimed to meet this demand of teachers in higher education. It will facilitate all those scholars who are new in universities, however, it will also help those who are experienced and wish to reflect on their prevalent teaching-learning practice to refine and improve themselves professionally.

Basically all teachers whether beginners or experienced need to provide opportunities to their students for processing the information to facilitate comprehension and learning. Teaching methods help a teacher in keeping their students engaged actively with the subject content and

also motivated for learning. All the ways and means used by the teacher for handling the contents and the raw learners in a specific context may be termed in an integrated way as **teaching methods**. These methods integrate the content, learner and the context altogether .Hence they also cater to the needs of diverse group of students simultaneously. Teaching methods have to be acquired by a teacher through awareness and practice.

This module on teaching methods for teaching different subjects like Science, Mathematics, Humanities and Social Sciences, and Languages at various levels of higher education may also help teachers/aspirant teachers in higher education to explore the following set of questions themselves :

1. What are the intricacies of classroom delivery of subject content to learners in higher education?
2. What does research evidence tell us about effective classroom delivery of subject content to learners in higher education?
3. What can be general learning outcomes in the specific subject (Science, Mathematics, Humanities and Social Sciences, and Languages) for learners in higher education?
4. How can we ensure that our teaching methods in specific subject (Science, Mathematics, Humanities and Social Sciences, and Languages) will help our students to achieve the intended learning outcomes?
5. What alternative teaching methods do we have to make our teaching more successful?
6. What assessment and feedback practices can be adopted in classrooms after delivery of the content through subject and context specific teaching methods, to ensure students' subject learning more effectively?

- **Module Units and Learning Outcomes :**

This module has following four **units :**

Unit No.	Title of the Unit
1.	Methods of Teaching Science in Higher Education
2.	Methods of Teaching Mathematics in Higher Education
3.	Methods of Teaching Humanities and Social Sciences in Higher Education
4.	Methods of Teaching Languages in Higher Education

After reading the learning material and completing the activities and exercises in the two units of this module you will be able to achieve following **learning outcomes** :

- Identify and aware yourself about your subject specific teaching methods in higher education.
- Comprehend the need and procedure of your subject specific methods in higher education.
- Understand the need and context of using different teaching methods related to delivery of content in your specific subject in higher education.
- Use your own subject specific teaching methods.
- Choose the context and content specific teaching method/s in your specific subject.
- Identify and aware yourself about various teaching methods used across different subjects in higher education.
- Understand the need of variety of teaching methods across subjects and disciplines in higher education.
- Use one or more teaching method/s while teaching your subject.
- Use one or more teaching method/s while teaching subject concepts with multidisciplinary and interdisciplinary perspective in higher education.

METHODS OF TEACHING SCIENCE IN HIGHER EDUCATION

1.0 Introduction

According to Singh (2008, 2010), the term method has been used synonymously with terms procedure and strategy(Walberg and Waxman, 1985).Therefore it can be said to include the means, events and actions used for substantive exchanges among teachers and pupils. So that, we can say that a **teaching method** is a collection of procedures and ideas that educators employ to help their learners learn and teach in the most efficient possible way. The terms "teaching methodologies" and "teaching methods" refer to different schools of thought about the nature of language and how it is taught. One of the most important things that every teacher accepts is the practical and realistic way to express to their learners so that they can conceptually understand, retain and achieve the teaching –learning objectives also termed as the instructional objectives.

The various methods of teaching science based on dominance of decisions by the teacher are termed as teacher-centered methods (**Authoritative Methods**). Using this approach, the instructor positions themselves as the subject matter expert. The students view the instructor as an authority or an expert. Conversely, learners are assumed to be abundant and passive absorbers of the teacher's information. Examples of teaching strategies that entail little to no student participation in the process include lectures and demonstrations. This absence of student participation in the material being taught is another reason why these teaching strategies are referred to be "closed-ended."

However, the methods employing development of the concept by the teacher with help of the students are termed as Learner-centered methods (**Developmental or Progressive Methods**). With this approach, the instructor/teacher fulfills the roles of both a teacher and a student. With this approach, the instructor takes on a dual role as a student as well, broadening rather than narrowing his intellectual boundaries in the classroom. Every day, the instructor picks up fresh knowledge that they were unaware of while teaching. In place of being an authority, the teacher "becomes a resource." The project method, problem-based learning, inquiry-based approach, experimental method, heuristic method, and other techniques are examples of learner-centered approaches.

Various methods useful for science teaching have been given briefly in this unit.

1.1 Lecture Method

1.1.1 The Concept

- Lecture method is the oldest teaching method. The teacher is responsible for organizing, preparing and presenting the lecture while the students listen.
- It is still most important teaching method in higher education. It is one of the autocratic teaching strategies. The learners are the passive listeners. If not handled appropriately, the class may turn to be boring sometimes and in such a situation at the end may not make room for the acquisition of scientific skills.
- It is the most traditional teaching method used in educational setting. This is 'one way' teaching method in higher education. During this teaching method, learners need to pay attention throughout the lecture. Learners firstly take note then compile the material and arrange it.
- While dealing with the abstract topics teacher most preferably uses lecture method. It saves time so more topics are addressed. It also makes use of rote learning by the pupil. Therefore, sometimes pupils may frequently miss important teaching points.

1.1.2 Principles of teaching

- It employs the following principles.
- The content is presented as whole.
- The main stress is on presentation.
- The students learn better through listening.
- The subject-content is correlated with other subjects.
- The new knowledge is linked with student's previous knowledge.

1.1.3 Steps of Lecture Method

1.) **Planning of lecture-**Planning includes ensuring the following :

- Specification of the objectives and learning outcomes which are to be achieved.
- The kind of questions to be asked.
- Various types of aids which are to be used.

- The feedback mechanism is to be used.

2.) **Introduction of Lecture-** Teacher Should give an introduction of what he /she is going to teach .Teacher should try to established rapport with the learner.

3.) **Development phase-**With the use of numerous examples and audio-visual aids etc. as planned for the lecture, the teacher illustrates the ideas and concepts in the classroom**.**

4.) **Evaluation Phase-**The teacher also evaluates the learning by asking questions from the students as foreseen through objectives and learning outcomes.

1.1.4 Advantages of Lecture Method of Teaching

1. In this teaching method a good number of the topics can be covered in a single class.
2. Use of any equipment or lab is not mandatory.
3. Learners' listening skills are developed.
4. Logical arrangement of the materials is done in order to present it orally.
5. It helps to learn languages.

1.1.5 Disadvantages of Lecture Method of Teaching

1. Sometimes the teacher gives them the identical lesson.
2. Since learning is an active process, studies should promote active engagement in the classroom as opposed to passively listening to the teacher.
3. The level of language used in the lecture is of higher order than that of the pupils. So, sometimes pupils are unable to fully benefit from the lecture.
4. Students sometimes forget lectures quickly.
5. Students' levels of attention vary as they are listening to the lecture.

1.1.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. What are the steps of the Lecture method?

I. _____

II. _____

III. _____

IV. _____

Q.2. Write down the three advantages of Lecture method.

I. _____

II. _____

III. _____

1.1.7 Point for Discussion

Recollect the lectures you attended at your graduation and post-graduation levels in your subject. Think of the good aspects of those lectures. Explore, the ways those lectures could have proved to be more interesting for you.

1.2 Demonstration Method

1.2.1 The Concept

- Demonstration method plays a significant role in teaching of science. The teacher makes a theoretical investigation and proves it experimentally in the classroom.
- The demonstration method of teaching is a traditional classroom strategy used in professional colleges of training and education. It is equally beneficial to demonstrate while teaching scientific concepts at all levels of education.

- Both teachers and pupil are active in demonstration method.
- The teacher should emphasize on the major points in the demonstration and also write them on the writing board in the classroom.
- The demonstration strategy focuses on achieving psychomotor and cognitive objectives.
- It is used when students are unable to connect theories and practice.
- Demonstration in science class involves carrying out science and technology activities to illustrate science and technological concept or ideas.

1.2.2 Steps of Demonstration Method

The demonstration usually has three steps as given below.

1. **Introduction** : The lesson's objectives are outlined in this stage. Demonstrator is another term for the teacher/instructor. He/she leads the pupil through the exercise that has to be developed.
2. **Development :** Pupils attempt to start the exercise that is being shown. The teacher strives to answer any questions students may have by providing more examples and demonstrations.
3. **Integration :** The teacher integrates all the activities and then these activities are rehearsed, revised and evaluated.

1.2.3 Criteria of Good Demonstration

A good demonstration should have following aspects. These can also be termed as **precautions for a good demonstration**.

1. The purpose/objectives of demonstration should be clearly stated before the students.
2. All experiments should be performed in front of the children.
3. The demonstration table should be arranged properly so that all pupils are able to see it properly.
4. The equipment required for the demonstration should be kept on the demonstration table.
5. Doubts of pupils should be cleared simultaneously.
6. The teacher should use easy and simple language.

7. After the completion of demonstration the teacher should discuss the observations and result of the demonstration in light of the pre-stated objectives.

1.2.4 Advantages of Demonstration Method

1. The teaching becomes effective if the numbers of apparatus are less.
2. It is less time consuming.
3. It is economical method.
4. It helps in achieving psychomotor objectives.
5. Through this simple or complex skill becomes easy to understand.
6. In demonstration method students learns through observing and watching the activities.

1.2.5 Disadvantages of Demonstration Method

1. It is not based on the principle of learning by doing.
2. It requires a lot of concentration.
3. The people do not get direct experience.
4. There is a general lack of sincerity and diligence among teachers who wish to complete the syllabus or syllabi at the earliest without putting sincere efforts.

1.2.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Demonstration in science class involves _____ to illustrate Science and technology _____

Q.2. Write main advantages of Demonstration Method.

I. _____

II. _____

III. _____

1.2.7 Point for Discussion

Recollect the science experiments conducted by you in science laboratory at your graduation and post-graduation levels in your subject. Think of the good aspects of those laboratory settings. Explore, the ways to incorporate those good aspects while demonstrating a concept or phenomenon in the actual classroom situation while teaching.

1.3 Project Method

1.3.1 The Concept

- Project method is considered an innovative method of teaching in modern times as refined and propounded by the pragmatist thinkers.
- It is used for individualized instruction for the learner and teacher simply guides.
- This method focuses on one theme, concept or idea or a problem at a time.
- The learners are encouraged to explore and enquire, observe and collect samples, then analyze to further synthesize and construct.
- Finally the project reports are presented for discussion.

1.3.2 Classification of the Project Method

It has been classified as constructive, artistic, problem solving and group-work project by pragmatists. This classification is on the basis of the nature of the work being undertaken for construction (teaching –learning materials, clay work etc.), use of aesthetics in music and fine arts, solving problems in daily life e.g. How to plant a sapling? How to clean a living room? And working in groups with focus on the purpose and rapidity.

There are four basic elements of this teaching strategy which make it purposeful :

1. Spontaneity.
2. Purpose.
3. Significance and Interest.
4. Motivation.

1.3.3 Steps of Project Method

a) **Creating the situation**-Interest of the learner is to be focused.

b) **Proposing and choosing the project**- Learner's context and need of the subject is focus.

c) **Planning the project**-Teacher guides and learner works to plan for himself/herself..

d) **Execution of the project**-Learner executes by own engagement.

e) **Evaluation of the project**-The reports are discussed in the group. It is goal focused.

f) **Recording of the project for future** -It is recorded for present and further future use also.

1.3.4 Advantages of Project Method

1. It aids in the formation of social norms and values in the students.
2. It offers priceless chances for training or learning transfer as well as connection between different topic matter components.
3. As a result of their close collaboration on social involvement in the spirit of democracy, it contributes to knowledge growth efficiently.

1.3.5 Disadvantages of Project Method

1. The project cannot be planned for all subjects and whole subject matter cannot be taught by this strategy.
2. It is not economical from the point of view of time and cost.
3. It is very difficult for a teacher to plan or to execute the projects to the learners and supervise them.

1.3.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Define Project.

Ans._____

Q.2. Write the merits of project method.

I. _____

II. _____

III. _____

1.3.7 Point for Discussion

Recollect your previous experience of a situation in your institution in which you were given a task and given a free hand to complete the task within a given time. Think about the curiosity, zeal, creativity and energy you invested to complete it. Correlate it with the project method and plan a project for teaching a concept to the students.

1.4 Problem-Based Teaching Method

1.4.1 The Concept

- The roots of problem-based learning can be based on the progressive movement, especially on John Dewey's beliefs that teachers should teach by tempting to students 'natural instincts to investigate and create' (Delisle, 2002).
- Only the identified issues are focused.
- Process skills related activities inside the classroom or in field are used.
- The teacher helps learner to appropriately use their senses for observation of events.
- Extraction of qualitative information from the observations are worked out.
- On the whole problem chosen has to be motivating issue.

1.4.2 Steps of Problem-Based Teaching Method

1. Selection and formulation of problem.
2. Presentation of the Problem.
3. Formulation of hypothesis.
4. Collection of relevant data and information.
5. Analysis and organization of data.
6. Drawing conclusions.
7. Testing of conclusion.

1.4.3 Advantages of Problem-Based Teaching Method

- It develops analytical, critical and generalization ability of the students.
- Teacher becomes familiar with his pupils.
- This method helps in maintaining discipline in the class.
- It helps to verify an opinion and satisfies curiosity.

- It develops group feelings while working together.
- This method is psychological and scientific in nature.
- It helps in developing good study habits and reasoning power.

1.4.4 Disadvantages of Problem-Based Teaching Method

- Sometimes it is not economic.
- It involves more time and energy.
- Balance of mental activities and physical activities is difficult to ensure.
- Teachers find it difficult to cover the prescribed syllabus in due time.

1.4.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. What is the root of problem-based learning?

Ans. _____

Q.2. Write down the steps of the Problem-based teaching method.

I. _____
II. _____
III. _____
IV. _____
V. _____
VI. _____

1.4.6 Point for Discussion

Think of various types of hands-on experiences used to resolve daily life issues and correlate them with problem based method. Explore how you can integrate them with your subject teaching method using problem based method.

1.5 Inquiry Approach Method

1.5.1 The Concept

- It is based on the ability and the interest of the learner to make an inquiry based on the specific observation in the field. Direct contact with the materials is the focus but at the same time reading, interaction and logical development is also used for inquiry. Traditional ways are not of much use.
- Inquiry method promotes divergent and rational thinking.
- Question to find the reality is encouraged during this method. Authority is of no consideration primarily.

1.5.2 There are two approaches :

a) Inductive discovery approach : The learners involve themselves to find the facts.

b) Deductive discovery approach : It is focused on the verification of a particular generalization by the learner.

The learning processes in it include the following points :

- Creating questions on their own;
- Obtaining supporting evidence to answer the question(s);
- Explaining the evidence collected;
- Connecting the explanation to the knowledge obtained from the investigative process;
- Creating an argument and justification for the explanation.

1.5.3 Implementation of the Inquiry Method : The inquiry method can be implemented in a variety of ways in a classroom. The major steps of the inquiry method are as follows.

1. Identify problem and acquire information about the problem.
2. Design Hypothesis. (a) Design analytical questions (b) State the hypothesis (c) Be aware of hypotheses formed to proceed further.
3. Identify the logic of the implications of the Hypothesis to the overall title.
4. Collecting Data and Information (a) Determine what data is required (b) Select or reject sources.

5. Analyze, evaluate and interpret data or information. (a) Collect relevant data (b) Evaluate sources (c) Interpretation of data or information

1.5.4 Advantages of Inquiry Method

- It enables learning while thinking.
- It focuses on drawing logical conclusions.
- It involves peer interaction.
- It promotes ownership because of self engagement.

1.5.5 Disadvantages of Inquiry Method

- It may involve longer time.
- The weak and below average learners may feel discouraged.

1.5.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this module.

Q.1. The two main approaches of discovery method are-

I. _____

II. _____

Q.2. The Inquiry learning approach include following steps-

I. _____

II. _____

III. _____

IV. _____

V. _____

VI. _____

1.5.7 Point for Discussion

Think of a concept in your subject and question yourself about its various facets. Focus on those facets which are less known to you. Inquire about them using observation and recording the facts. Explore to use this approach to teach your subject to students.

1.6 Laboratory or Experimental Method

1.6.1 The Concept

- This method enables learners to get opportunity to acquaint themselves with the facts through direct experiences individually.
- This method enables learners to verify the facts themselves with the help of experiments.
- This method needs laboratory in which equipment and other teaching aids related to science are available.
- This method enables the learner to achieve the specific objectives namely - application of learnt theory in laboratory conditions, personal handling of the apparatus, and development of hands-on experience hence to improve the psycho-motor abilities of the students.
- This method promotes learning by doing.
- This method enables learners to orient themselves towards new equipment and procedure as well.

1.6.2 Advantage of Laboratory or Experimental Method

1. This approach adopts a child-centered methodology.
2. It awakens and engages pupils.
3. It allows pupils to learn by doing, and they think a lot for themselves.
4. A variety of talents are acquired.
5. It opens the door to research, testing, and the validation of scientific theories and facts.
6. It instills characteristics such as integrity, honesty, and labor dignity, among others.
7. It promotes the spirit of inquiry.

8. It aids in the development of higher order cognitive abilities including synthesis, analysis, and reasoning.

1.6.3 Disadvantage ofLaboratory or Experimental Method

2 It is costly and not cost-effective.

3 It takes a lot of time since certain experiments require a long period to conclude.

4 It has high expectations from both teachers and pupils.

5 It does not ensure that students will solve problems outside of the lab with the same level of efficiency.

6 It is unrealistic to expect all kids to be proficient workers.

7 The majority of pupils are either incapable of producing creative work or are not prepared to do so.

1.6.4 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this module.

Q.1. Write some specific objectives of Laboratory method.

I. _____

II. _____

Q.2. Write down the advantages of Laboratory method.

I. _____

II. _____

III. _____

1.6.5 Point for Discussion

Recollect your experiences of science laboratory in which you conducted the science experiments at your graduation and post-graduation levels in your subject. Think of the good

aspects of those laboratory settings to experiment and learn things. Explore the ways to incorporate those good aspects while experimenting and using laboratory to teach a concept or phenomenon in the actual classroom situation while teaching.

1.7 Heuristics Teaching Method

1.7.1 The Concept

- The term heuristics means to learn through discovery and doing things.
- It is based on the practical way of doing and experiencing. The psychological principle of trial and error is useful while using this method.
- It put pupils as close to the level of the discoverer as feasible.
- The gathering of information through rote memory is discouraged.

1.7.2 Objectives of Heuristic Teaching Method

- To develop problem –solving tendency.
- To develop logical cum imaginative thinking ability.
- To develop scientific attitude towards the problem.
- To encourage free thinking and discovery of facts through experience, for performing a task.

1.7.3 Procedure /Method of Heuristic Teaching Method

1. Action on Problem : Arriving for appropriate solutions for the problem.
2. Execution : Perceiving and observing for accurate recording of the observed results.
3. Conclusion : Formulation of hypothesis, identification and arriving at the accurate solution.

1.7.4 Advantages of the Heuristic Teaching Method

- It creates the situation for divergent thinking.
- It is based upon psychological principles of learning.
- It develops the logical and imaginative thinking among the learner.
- The teacher remains active.
- The teacher provides the individual guidance to the learner.

- It develops the feeling of self-confidence and self –reliance.

1.7.5 Disadvantages of the Heuristic Teaching Method

- The process is time- consuming.
- Teacher should have good experience and training. Without proper training it is difficult to involve students.
- Higher intelligence and divergent thinking is expected from learners.
- Evaluate learning can be highly stressful.

1.7.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Write down the four objectives of Heuristic method.

I. _____
II. _____
III. _____
IV. _____

Q.2. Heuristic method is based on the psychological principle of_____ and _____

1.7.7 Point for Discussion

Recollect your experiences of various topics which you studied by heuristic method during graduation and post-graduation level. Think, how it will develop scientific attitude among the learners? Find out the ways and topics where the principle of trial and error in your subject content can be used during your classroom teaching.

1.8 Co-operative Learning

1.8.1 The Concept

- The aim of cooperative learning is not only to organized class activities but also to experience social and educational experiences.
- Cooperative theory is introduced by John Dewey. It helps the students to work in group.
- In cooperative method each member is responsible for learning. Also, to teach what is taught to his/her teammates.
- Two essential elements of the co-operative learning are positive interdependence, Individual accountability.

1.8.2 Co-operative learning divides into two parts

(a) Formal Learning

- The official group allocated projects and duties. They also remain together till the job is over. The organization is clearly structured.

(b) Informal Learning

- These are precisely what formal education is not. They are also not well structured. They usually entail brief actions.
- Usually, they are enduring support groups. Additionally, they can last for years, with a semester serving as their minimum.

1.8.3 Elements of Co-operative Learning

Basically, there are five elements of cooperative learning :

i. **Positive Interdependence :** It indicates that they have certain objectives. Their efforts benefit the group as a whole in addition to themselves. The goal of positive interdependence is individual achievement, as well as each individual group member's success.

ii. **Individual and Group Accountability :** The collective bears responsibility for its deeds. Members are also responsible for making a reasonable contribution and for accomplishing the collective objective. In addition, nobody may steal or replicate the work of others. Everybody's performance has to be evaluated. And the group ought to get its findings.

iii. **Small group and Interpersonal Skills** : Interpersonal and small group skills must be used in a group setting. These are essentially cooperative skills. Basic abilities include self-motivation, effective leadership, decision-making, establishing trust, communication, and handling conflict.

iv. **Promotive face-to-face Interaction :** In other words, by sharing resources, students share each other's achievement. To discover that they support, encourage, boost each other's confidence, and value each other's work. This shared objective includes both individual and educational components.

v. **Group Processing** : Members of the group must feel comfortable enough to speak openly with one another. They also celebrate successes together and sense each other's concerns. In addition, they must to discuss reaching the objective and preserving constructive working relationships.

1.8.4 Advantages of Co-operative Method

- It develops self-confidence and self-discipline.
- It develops discovery attitude in the student.
- It is based on the principle of individual differences.
- It is democratic and scientific in nature.
- The student remains active throughout the project execution.

1.8.5 Disadvantages of Co-operative Method

- The varied pace of learners may derail.
- A conflict with coworkers regarding goals may hamper.
- The extrovert may dominate conversations and meetings.

1.8.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Write any two essential elements of Co-operative learning.

I. _____

II. _____

Q.2. Write any two advantages of Co-operative learning strategy.

I. _____

II. _____

1.8.7 Point for Discussion

Recall your experiences at your UG and PG level of learning where you were part of a group activity. Also recall your role/ individual accountability in those activities. Based on your self experiences explore the tactics used by your teachers to deal with individual differences between individuals and also among the various groups of individuals in the class. Use those identified ways to improve your own co-operative teaching method in your subject and classrooms.

1.9 Discussion Method

1.9.1 The Concept

- Discussion is the exchange of ideas between different people/ groups of people.
- There is consistent two way communication to reach the negotiation on the concept.
- A very positive interpersonal relationship and frequent exchange of ideas between the teacher and the learners occurs in it.
- The feedback during discussion helps to get strengthened.
- Discussion method requires a thorough knowledge of the topic under discussion. It necessarily starts with a question. The vague questions be avoided.

1.9.2 Objectives

Discussion sessions can be led by the instructor, or can take place in groups. In either case, the goal is to meet the lesson objectives by allowing the trainees to :

a) Relate relevant personal experiences or events which have occurred in the work setting.
b) Contribute ideas or personal opinions.
c) Apply what have been learned to familiar situations or solving problems.
d) Express what had been learned?

1.9.3 Advantages of Discussion Method

1. Democratic principles are adhered to.
2. The teacher facilitates rather than his/her domination in the discussion.
3. The speaking, listening, and communication skills are easily enhanced.
4. It can be tailored to the interests, needs, and abilities of the learners.
5. Ability to tolerate and proceed logically is promoted.
6. Respect for others' views is learnt and own thought processes is improved.
7. This method is very suitable for higher classes.

1.9.4 Disadvantages of Discussion Method

1. It is a time-consuming method.
2. There is a possibility that some students dominate the discussion.

3. It may be aimless if not as per norms and rules.
4. This method may not be useful for all subjects.

1.9.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. What is discussion method?

_____ _____

Q.2. Discussion necessarily starts with a _____

1.9.6 Point for Discussion

There must have been many instances where you have participated or witnessed a classroom discussion during your UG and PG studies. Recall the instances where discussion in classroom has helped/ played a crucial role in changing/reshaping your pre-existing thoughts/ ideas. Explore the ways for the incorporation of 'discussions' to teach complex topics/concepts while their delivery in your class.

1.10 Lecture-cum-Demonstration Method

1.10.1 The Concept

- Concepts are explained by using Lecture and it is supported with demonstration.
- Concept is demonstrated and lecture is used to explain and elaborate various aspects of the concept.

1.10.2 Modality

- It is basically harmonious integration of the lecture method and the demonstration method explained above in this unit.

1.10.3 Advantages

1. It is economical and helps to make an efficient and mindful use of resources.
2. It enables the teacher to engage actively.
3. It helps to resolve several problems immediately through hands on experience.
4. It breaks monotony.
5. It is more interesting.
6. It motivates the participants.

1.10.4 Disadvantages

1. Sometimes one of the modes may be overused if not planned appropriately.
2. Sometimes only lecture may dominate with very less use of demonstration.

1.10.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Write any two essential elements of Lecture-cum-demonstration method.

I. _____

II. _____

Q.2. Write any two advantages of Lecture-cum-demonstration method.

I. _____

II. _____

1.10.6 Point for Discussion

Think about the lectures attended by you related to your subject. Explore the possibilities of integration of that lecture with a demonstration. Analyse if the integration will be useful for the learners.

METHODS OF TEACHING MATHEMATICS IN HIGHER EDUCATION

2.0 Introduction

The open conversation with the learners usually reflect that the mathematical subjects are too difficult to study .This challenge is regularly faced by the teachers teaching mathematics and statistics. The traditional methods of teaching with use of white board / black board, and marker/ chalk etc. are in frequent practice by the teachers in these subjects. Now, the traditional way of delivery of mathematics has been replaced by the modern applied ways of teaching and learning mathematics and statistics. Hence, the awareness of the teacher regarding variety of methods of teaching mathematical subjects (particularly mathematics and statistics) at undergraduate and higher levels of teaching in higher education is a common expectation. This awareness will facilitate the teacher to use various methods in different degrees of his/her expertize. The first unit of this module is an attempt to aware and facilitate the curious teachers and learners in this direction. Further in this second unit the methods regarding teaching mathematics have been described briefly. Here in the below given sections 2.1 and 2.2 the methods are of traditional nature thereafter in rest of the sections some innovative methods have been also described.

2.1 The Exposition Method

2.1.1 The Concept

- The expository or positive technique is another name for exposition as a teaching, learning, and evaluation strategy. It is a conventional oral communication technique that entails conveying a sizable amount of information.
- Exposition does not mean only explaining but it also includes interpretation.
- The teacher does not speak all the time instead he only discusses and explains the material at the beginning of the lesson; asks question examples in the necessary amount of time. Along with listening and note taking, students also practice and ask questions if they don’t understand.

- To make the lesson easy for pupils to follow, expository instruction presents the material in a set order. Transitions and a plot serve as a roadmap for pupils as they go through the material, improving understanding and retention.
- Superior form of exposition is lecture that is successfully applied in maths courses in higher education.
- To assist students understand rules and information and to articulate the newly learned material in their own terms, teachers provide explanations that require rigorous reasoning and the rational application of knowledge (notions, concepts, etc.).

2.1.2 Steps for using the Exposition Method

- The teacher plans and organizes the subject content.
- The teacher engages the learner through interactive activities.
- The teacher uses multimedia and technology resources to make teaching-learning more interactive, interesting and systematic as well.
- The teacher explores the individual problem and as per their individual need each student can think and resolve the individual problem faced in the subject.
- Teacher regularly monitors student understanding and leads to meaningful learning.

2.1.3 Advantages of the Exposition Method

- Promotes participation and interest from students, resulting in an engaging learning environment.
- The exposition method helps the student with clarification and feedback by providing deeper understanding of the content.
- Encourages active learning and gives students the chance to use their knowledge and abilities in practical settings.
- It helps learners think critically and come up with solutions by having them interact with the subject.

2.1.4 Disadvantages of the Exposition Method

- It is teacher-centred method. Here student has limited engagement and participation.

- It is not based on individualized instruction/individual differences as instruction is based on whole class.
- Opportunity for learner to discovery and exploration are limited.
- The expository method is basically based on teacher's knowledge and expertise.

2.1.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Explain the Expository method.

Ans._____

_____

Q.2. Write down the three advantages of the Expository method.

I. _____

II. _____

III. _____

2.1.6 Point for Discussion

Recollect your UG and PG / higher education experience of mathematics classroom when your teacher delivered the common lecture to all students and then dealt with the individual students when they faced problems in it. Recollect the strategies used by your teacher and think how it is related with exposition method of teaching. Further think how you can incorporate the exposition method in your subject in the classroom.

2.2 The Exercise Method

2.2.1 The Concept

- The exercise is the operational method of conscious repetition of activity that helps in development of intellectual capacity, building knowledge and skill training.

- The exercise method inculcates among the learners independent work skills. Understanding the concept, computation rules, strengthening of knowledge.

2.2.2 The major precautions during development of Exercise are :

a. Varied level of difficulties.
b. Diversification of exercises.
c. Proper monitoring to avoid acquisition of wrong skills.

2.2.3 Advantages of the Exercise Method

- The exercise method helps the students to develop deeper understanding by applying theoretical concept to real-world problem.
- It helps in developing critical thinking among learner.
- Through this method learner is involved in participatory and interactive process.
- It helps to develop retention of knowledge by reinforcing learning though practice.
- The exercise method prepares students for real-world challenges where mathematical skills are often required.

2.2.4 Disadvantages of the Exercise Method

- It is time consuming.
- Learners become frustrated and discouragement when the find certain exercise too challenging.
- It required proper guidance by experts/teachers.
- Intense focus on problem-solving may limit the coverage of a broad range of mathematical topics.
- Some students may become proficient at routine problems but struggle when faced with novel or more complex scenarios.
- In group settings, there might be disparities in participation, with some students dominating discussions and others not actively contributing.

2.2.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Explain the Exercise Method.

Ans.

_____

_____

Q.2. Write down the three advantages of the Exercise Method.

I. _____

II. _____

III. _____

2.2.6 Point for Discussion

Recall your experiences in higher education where your teacher used exercises as a tool for deeper understanding of the lesson/concept and skill development in the students. What crucial role is played by the teacher while assigning exercises in groups?

2.3. The Jigsaw Method

2.3.1 The Concept

- Jigsaw is a method of managing class activities to make learners interdependent to achieve best learning goal feasible for each of them. Here class is cut or divided (hence the term Jigsaw into groups as per need for management to achieve the goal.

- Each member of the group is given a study assignment and each one is required to become experts in the given field/task as per the assignment; after that, each of them is expected to introduce their colleagues in detail regarding the topic.
- It is the most common co-operative learning method in which learner works in different groups to achieve a common group goal. Working groups are formed in the classroom as part of this technique. Interdependence among group members is a key feature. It has the concept of each team member learning. So it is also known as interdependent group method.
- It is an innovative method of teaching.

2.3.2 Steps for the successful application of the Jigsaw Method.

a. Establishing the single theme and divide it into more than one sub-theme (usually four or five sub-headings) and develop initial learning team related to main theme.
b. Organizing learning groups/teams which may be termed as working groups too.
c. Setting up expert groups/expert working groups related to each chosen sub-theme.
d. Returning to the initial learning team and discuss the sub-themes in respective initial working group.
e. Final holistic evaluation of the activity.

2.3.3 Advantages of Jigsaw Method

- It focuses on the capacity for reflection, active listening, cooperation, creative thinking.
- It also strengthens the bonds between the groups. Group participants need to know that finding a solution benefits everyone in the group.
- The issue of dominating students is eventually mitigated by the group's self-interest.

2.3.4 Disadvantages of the Jigsaw Method

- The educator needs to ensure that pupils who struggle with their studies (issue of the sluggish student) don't submit a below average report to the group.
- Boredom of bright students can be a problem sometimes in the classroom so it has to be handled aptly.

2.3.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. What are the essential steps for Jigsaw method?

I. _____
II. _____
III. _____
IV. _____

Q.2. What are the main uses of Jigsaw method?

I. _____
II. _____
III. _____

2.3.6 Point for Discussion

Think of some concepts in your subject which are appropriate to be taught by using Jigsaw method and support them giving reasons for your choice. Execute those topics/concepts in your class. Think and explore how this method has benefited learners while achieving the learning outcomes?

2.4 The Cubing Method

2.4.1 The Concept

A cube can assist someone in considering their subject. Cubing was originally created to have students use a variety of thinking skills to consider a single concept. It encourages critical thinking and deeper understanding by prompting students to engage with the material

in various ways. In this method, the students are either given or asked to make a cube in which each face has different directions/questions/prompts written on it. Students then roll the cube and respond to the directions/questions/prompts that come as an outcome. It can be viewed and explained from following six perspectives.

1. **Describe** : It is related to concepts and ideas that are generated due to the five senses like- sight, hearing, taste, touch, and smell and then describe the subject's appearance.
2. **Compare :** It is related to comparing and contrasting of the observed concepts and ideas. By comparing, students can identify patterns, relationships, and distinctions, which deepen their understanding of the topic.
3. **Associate** : Students are encouraged to connect a topic to their experiences, prior knowledge, or other subjects to better understand its significance. They are encouraged to list memories or thoughts while reflecting on the subject, promoting a more personal and intimate learning experience.
4. **Analyze :** This step involves breaking down the topic into its constituent parts and closely examining them, allowing students to analyze its causes, effects, implications, or underlying principles, thereby enhancing their understanding and comprehension of the subject matter.
5. **Apply :** One of the most interesting sides of the cube. Here, students are challenged to use their understanding of the topic to solve problems, make predictions, or complete tasks. By applying their knowledge in practical contexts, students can demonstrate their comprehension and develop their problem-solving skills.
6. **Argue** : Students are encouraged to take a position on a topic, support it with evidence, reasoning, or examples, and consider opposing viewpoints and counterarguments. They argue both pros and cons, enhancing their critical thinking and persuasive communication skills, and encouraging critical evaluation from different perspectives (Scott, n.d.).

2.4.2 Steps of the Cubing Method :

Step 1 : Identify the key concepts or the targeted skills that are to be discussed during the activity.

Step 2 : For each key concept or targeted skill on the cubes create a command/instruction. While making these instructions one must consider the interests, learning styles, and individual needs of learners.

Step 3 : Provide a suitable and challenging task that is appropriate for the student's level to ensure they understand the instructions and directions of the tasks.

Step 4 : To differentiate based on readiness, make up or down adjustments. Also sort students into groups based on their learning profiles, interests, or readiness.

Step 5 : Students of each group will take turns and roll the dice (Nickerson, 2016).

2.4.3 Advantages of the Cubing method

- It makes assignment interesting and joyful.
- It helps in expanding high level thinking skills.
- For the tactile/kinesthetic learner cubing is an excellent method.
- It works well with both individuals and small groups of students

2.4.4 Disadvantages of the Cubing method

- It requires more rigorous and lengthy training.
- Information content is smaller, required increased attention of the student and their ability to make connection and find the answer themselves.

2.4.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1.. The six faces of a cube indicate-

I. _____

II. _____

III. _____

IV. _____

V. _____

VI. _____

Q.2. Write down the three advantages of Cubing method.

I. _____

II. _____

III. _____

2.4.6 Point for Discussion

Reflect on your previous classroom experiences where your teacher used one or more perspectives (out of six perspectives given above in the Cubing method) to study a concept/topic. Discuss how that method was useful in engaging the students and exploring the topic. Incorporate all the steps of cubing method to teach a topic in your classroom and then discuss its effectiveness. Also, discuss the challenges you encountered while doing it. Based on your reflection, propose strategies for enhancing the implementation of the Cubing method in future classroom activities.

2.5 Inductive-Deductive Methods

2.5.1 The Concept of Inductive-Deductive Method

Inductive-deductive method is the integration of following two methods whose details have been described briefly in this sub-part of the method description.

a) Inductive method, and

b) Deductive method

2.5.1.0 Inductive Method

2.5.1.1 The Concept

- Induction is grounded of teaching –learning mathematics in inductive method.

- To provide a universal truth or fact by demonstrating that, if it is true in one instance, it will also be true in the subsequent instance in the same serial order is known as induction.
- Induction is the process of arriving at a statement of generalization by particular case and home true for all the case.
- In inductive method, the rule and formula are established after extensive study of experiences, experiments, and examples.
- Lessons that need to develop concepts, guidelines, definitions, generalizations, and tangential relationships between facts are better suited for the inductive technique.
- While selecting inductive method, a teacher should check whether it is possible to present enough number of particular cases as instances for the generalization to be arrived at.

2.5.1.2 Inductive Method is most useful or suitable where :

- New topics are introduced.
- Rules are to be formulated.
- Formulas are to be derived.
- Generalization or laws are to be arrived at.

2.5.1.3 Steps in Inductive Approach

Inductive approach includes the following four steps :

1. **Presentation of Specific Instances**–The present's instances of generalization before the students.
2. **Observation –**On observing various instance presented, the student would search for the commonalities among the instance**.**
3. **Generalization-** After observing the instances presented, the teacher and children finalize the commonalities**.**
4. **Verification-** After deciding on commonalities, children verifies it for other instances. In this way, children arrive at generalization.

2.5.1.4 Advantages of Inductive Method

1. The knowledge obtained through this approach is based on observations, it is a scientific process.
2. Because this approach is reasoning-based, it is suitable for teaching mathematics.
3. The child-centered approach, for example, applies several significant psychological concepts, making it a psychological strategy.
4. With the aid of the inductive technique, students acquire information that is lasting and stable. They perform the process of analysis and generalization based on exceptional cases.
5. By helping the pupil work through issues, this approach fosters self-confidence. This method guides the student to work them, so this develops self-confidence

2.5.1.5 Disadvantages of Inductive Method

1. Inductive method is slow process so required more time and labor.
2. It needs sharp mind, proper planning and enough labour.
3. This method is useful only for lower classes because syllabus is very wide in higher classes and it is not possible to cover the whole syllabus.
4. The ability and capacity of problem solving can be developed by the use of this mind.

2.5.2.0 Deductive Method

2.5.2.1 The Concept

- The deductive approach is predicated on inference. It is the exact opposite of the inductive approach.
- From general to specific, complex to specific, abstract to concrete, and formula to example, the student moves forward.
- In deductive method, laws, principle and formula are used as a basis to workout related examples, identification of related facts etc. to prove the principle.
- Thus in deductive method the teacher tells the rule, law or principle and then the student applies that rules to confirm on the basis of observation.

2.5.2.2 Steps of Deductive Approach

Deductive approach includes the following four steps :

1. Identification of the problem.
2. Search for temporary hypothesis.
3. Framing temporary hypothesis.
4. Verification.

2.5.2.3 Advantages of Deductive Method

1. Solving- problems with the help of pre-discovered formulas does not take much time.
2. Students and teachers can apply this method frequently because by using this approach, mathematics work becomes very easy and efficient.
3. It develops the leaning power of students because students have to learn and retain so many formulas.
4. This approach is very economical. It saves times and energy both for students and teachers.

2.5.2.4 Disadvantages of Deductive Method

1. It promotes the memorizing of information that is quickly forgotten, rendering knowledge meaningless.
2. This approach is not psychologically sound and unnatural for pupils who do not acquire the capacity to understand abstract concepts in the lack of a tangible example.
3. Knowledge acquired using this approach is neither stable nor lasting.
4. The students' drive and curiosity are not piqued since they find the truth to be unimportant.
5. The students' self-confidence and imitation skills are not developed.

2.5.2 Advantage of Inductive-Deductive Method

- The basic advantage of this method lies in the freedom of the teacher to use the inductive or deductive approach or integration of the two approaches as per the need and situation of the chosen subject content and the related status of the actual learner/s. Therefore the inductive and deductive approaches are used in a complementary and integrated manner to facilitate learning among the learners.

2.5.3 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Write down the steps for Inductive method.

I. _____

II. _____

III. _____

Q.2. Write down the three advantages of Deductive method.

I. _____

II. _____

III. _____

2.5.4 Point for Discussion

Recollect your experience of learning through getting across several examples or experiences and based on those your ability to comprehend a concept in your subject and vice-versa. Think and discuss with your peers, as to how you can integrate this in your real classroom teaching – learning context in higher education.

2.6 Analytico-Synthetic Method

Analytico-Synthetic method is combination of two methods. Basically Analytic method is involved in finding the solution and then Synthetic method is used for the presentation of the solutions that are discovered. Both the methods are as mentioned and described below :

a) Analytic Method

b) Synthesis Method

2.6.1 Analytic Method

2.6.1.1 The Concept

- The purpose of analysis is to separate or segregate the objects that are in a group.

- The segregated elements are explored further to know the facts which constitute its reality.
- It helps the learner to proceed from the unknown to known.

2.6.1.2 Condition of the use of Method :

- While need to prove any theorem.
- While construction task in geometry.
- While working out the solution of some new arithmetical problems.

2.6.1.3 Advantages of Analytic Method

- It develops the reasoning power and the ability to analyze the problem.
- It creates creativity and originality in the child.
- It is based on the approach to discover afresh.
- It develops scientific temperament.
- Knowledge gained by this method is durable.

2.6.1.4 Disadvantages of Analytic Method

- This is a time-consuming process.
- It becomes difficult to finish the entire syllabus in the allotted time if it is not planned realistically.

2.6.2 Synthesis Method

2.6.2.1 The Concept

- Synthesis means "to join separate parts" by assembling the related constituents.
- The synthesis process works from hypothesis formulation to conclusion or from known to unknown.

2.6.2.2 Advantages of Synthesis Method

- It is a brief and efficient procedure.
- It honors the child's memory.
- It creates a record and succinctly displays the facts that are found.

- It is an instructive procedure; it does not include the trials and errors that come with analysis.

2.6.2.3 Disadvantages of Synthesis Method

- In this method, there is no scope of discovery.
- The recall of each step cannot be possible for every child.
- Sometimes a child may have doubts.

2.6.3 Advantages of Analitico-Synthetic Method

- This method helps the learner to strengthen the subject content conceptual understanding.
- It develops clarity about the concept in a very logical manner.

2.6.4 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Explain the meaning of “synthesis”.

Ans._____

_____

Q.2. Write down the two conditions where Synthesis method is used.

I. _____

II. _____

2.6.5 Point for Discussion

Recollect your previous experiences in which you tried to handle or resolve a problem by segregating it into simpler components. Correlate your experiences/experiences of your peers with the basics of this method. Explore how you can take this experience to real classrooms.

UNIT- 3

METHODS OF TEACHING HUMANITIES AND SOCIAL SCIENCES IN HIGHER EDUCATION

3.0 Introduction

It has been specifically mentioned in first unit of this module that, **teaching method** is a collection of procedures and ideas that educators employ to help their learners learn and teach in the most efficient possible way. Teaching and learning in humanities and social sciences is a very challenging task. Usually teachers teach but learners are able to memorize various aspects of subject matter. However the real task of the teacher is to promote behavioral changes along with the mental disposition of the learner. Therefore, the teachers need to be aware of various types of teaching techniques and the tactics to be used while using a specific teaching method. Method of teaching used by the teacher should be regulated by the context and level of the learner and the subject content to be taught. The subject content of humanities and social sciences seems to be very close to the real life of the learner but acquiring the knowledge of reality embedded with variety of thoughts and practices is the real challenge. Thus use of different strategies while teaching becomes the imperative task of the teacher. This unit of the module will help the learner to acquaint with variety of teaching methods for teaching humanities and social sciences. It will also apprise them with the advantages of using them independently or in an integrated manner in the real classrooms at the undergraduate and higher levels of teaching in higher education.

Different methods of teaching humanities and social sciences have been given below in different sections.

3.1 Lecture Method

3.1.1 The Concept

- Lecture method is one of the oldest and traditional methods. This is a teacher centred method. The aim of the lecture method is to ensure communication of environment related content to the student in its original form.

- George Brown (1982) believes that a lecture method is a set of key points that contain relevant examples, desired detail and missing information. These points can be ordered in different ways, indicating different types.
- This method can be used to motivate students to clarify, review and expand content. It provides opportunities of correlating event and subjects.
- Brown, G. (1982) hold that lecture is a set point with associated examples, illustration elaboration and qualifications.

3.1.2 Types of the Lecture Method

It has the following five main types :

a) Classical Method

In this method the lecture is divided into some sections and sub-sections. Taking notes in this method is easiest and it is easy to plan.

b) Problem-centered Method

This is the most intellectually stimulating method. In this, the problem related to the subject is stated and the criteria for its evaluation are described.

c) Systematic Method

It includes interrelated statements, which lead to a conclusion. This method can be used in history and other art related subjects.

d) Comparative Method

This includes comparison of two or more processes, subjects, tasks, principles or systems. While comparing, there is discussion about similarities, differences, advantages and disadvantages.

e) Thesis Method

It starts with a strong statement and an attempt is made to prove it with evidence and logic and finally a conclusion is drawn by summarizing it.

i. In this method a teacher explains the subject contents in simple and understandable manner which is particularly used in the secondary classes and above.

ii. This method can be used to motivate students to clarify, to review and to expand contents.

iii. It is for imparting authentic, systematic and effective information about some events and trends.
iv. It gives the students training in listening.
v. It develops good audience habits.
vi. It provides opportunities of correlating events and subjects.
vii. It enables the linkage of previous knowledge with the new one.

3.1.3 Advantages of the Lecture Method

- A well prepared and a well delivered lecture can make social studies interesting.
- Lecture gives the teacher an opportunity to come into immediate contact with the pupils.
- Lecture gives the pupils training in in listening and taking rapid notes.
- Lecture saves time and energy.
- Good lectures stimulate brighter student.
- It develops the rapport building between the teachers and students.

3.1.4 Disadvantages of the Lecture Method

- Make students inactive.
- There is a very little scope for learners' creativity.
- May include irrelevant material.
- Discourage self-effort by the learners.
- Every teacher is not expert enough to deliver lecture.
- The learners lose opportunity to make self-study.
- Lecture can soon result in monotony.
- Lecturing is against the principle of 'learning by doing'.
- An average student may not be able to fix up their attention to a lecture of 40-45 minutes.
- Sometimes a lecture may be biased.

3.1.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. What are the main types of Lecture method?

I. _____

II. _____

III. _____

IV. _____

V. _____

Q.2. Write down the definition of the Lecture method given by George Brown.

Ans._____

_____

Q.3. Write down three disadvantages of Lecture method?

I. _____

II. _____

III. _____

3.1.6 Point for Discussion

Recollect the lectures you attended in your subject at your graduation and post-graduation levels. Think of the good aspects of those lectures. Explore and identify the ways those lectures could have been made more interesting for you. Incorporate those ways in your own classroom while teaching.

3.2 Problem Solving Method

3.2.1 The Concept

- Problem solving means “how we think” to solve particular problem or any complex

situation. It has been very popular progressive method of teaching wide range of topics in social sciences, languages as well as the science.

- In this method the learner is required to solve a problem, making use of his previous knowledge. It could be a method to equip pupils to cope intelligently with and take part effectively in changing life.

3.2.2 Criteria for Problem Selection

- The challenge shouldn't be wholly unrelated to the learners' prior experiences; rather, it should be intellectually demanding for young children.
- The issue ought to be connected to a fundamental human activity.
- The problem should have potential to spark interest in both problem solving in general and the particular problem in particular.
- The problem should have practical significance.

3.2.3 Advantages of Problem Solving Method

- It serves as a preparation for adult life.
- It develops the power for critical thinking.
- It makes pupil active recipient of knowledge.
- Facilitates the simple assimilation of knowledge.
- Fosters healthy relationships between teachers and students.
- Develops ideals of tolerance and open-mindedness.

3.2.4 Disadvantages of Problem Solving Method

- The problem-solving approach can easily lead to the selection of unimportant and inappropriate topics.
- If this strategy is utilized too frequently, it will become boring.
- This is not suited for bringing about emotive changes; rather, it is appropriate for building cognitive abilities**.**

3.2.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Write down the meaning of Problem Solving method.

Ans_____

_____

Q.2. Write down the advantages of Problem Solving method.

Ans._____

_____

3.2.6 Point of Discussion

Recollect your own UG and PG experience, find if during your classroom teaching your humanities and social science teacher posed any existing societal problem in front of your class and asked you all to propose/find the solution to it. Recall how that problem solving activity has helped you as a learner of the specific subject. Analyze the overall scenario in light of the above described method of teaching. Discuss with your peers as to what else could have been done to make such method more effective. Incorporate your own peer discussed suggestions in your own subject teaching.

3.3 Project Method

3.3.1 The Concept

- The project method has also been described briefly in first unit (section 1.3) of this module. As quoted by Singh (2010) , the project according to modern pragmatist thinkers like John Dewey and Kilpatrick is a whole hearted purposeful activity proceeding in a social and natural environment.

- The education in such an educational setting is acquired by engaging learners in a variety of group activities in small groups or larger groups.
- Here, teacher acts only as a guide and facilitator.

3.3.2 Steps in Project Method

- Providing a situation.
- Choosing the project.
- Planning the project.
- Executing the project.
- Evaluation of the project.

3.3.3 Types of Project

The major kinds of projects as per renowned pragmatists are as follows :

1. **Constructive Project-** in which emphasis in on laying stress on constructive work by the child. In teaching social science a teachers can ask the leaner to construct chat snap, diagram or model of the various phenomenon or process.
2. **Appreciation projects-**The main purpose of this type of projects is to serve of appreciation among learners by having a direct exposure with their environment.
3. **Problematic projects**-In this type of project the problem solving capacities of the students through their experiences are developed.
4. **Skill project**- These projects are aimed at developing mastery of the skill and knowledge. It increases the work efficiency of the learners.

3.3.4 Advantages

- It gives freedom to children.
- It enables the children to learn from their own experience.
- It is free from the defects of the text book method.
- It is a natural method of acquiring knowledge.
- It gives training in social adjustment.
- It gives training in democratic way of living.
- It trains the children in solving problems.
- It helps the teacher to understand his pupils.

3.3.5 Disadvantages

- It hampers the completion of syllabus.
- There is a possibility of giving more importance to less important aspects and deviate from real action.
- It may lead to monopolization by some students.
- It may disturb the school working system.
- It increases work load of teachers.

3.3.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. What do you mean by Project Method?

Ans._____

_____

Q.2. Write down the steps of Project Method.

I. _____
II. _____
III. _____
IV. _____
V. _____

Q.3. Define Skill Project method .

Ans._____

_____

3.3.7 Point for Discussion

Go around your own educational institution with your peers. Identify some problems related to your subject and in under graduate and post-graduate class assign them in form of various projects. Ask your students to prepare and present them in the class.

3.4 Source Method

3.4.1 The Concept

- In source method teacher uses the original material and source for the teaching of humanities and social sciences to make teaching more effective.
- This method involves activity on the parts of the teachers as well as pupils. Source method can be used in the beginning of the lesson to motivate the pupils.
- Sources may be written, printed, recorded or in any original form. Original sources may be in forms like-statues, tools, weapons, customs, tradition etc. Written sources may be in various forms like - newspapers, manuscripts, diaries, letters, reports etc.

3.4.2 Objectives of Source Method

1. It helps the students to develop critical thinking by using the source and weighing the evidence.
2. Students can develop their own independent judgment through a critical analysis of source.
3. It helps to develop elementary skills of collecting data, sifting the relevant data organizing them and interpreting them.
4. Students are able to develop imagination for reconstruction of the past.
5. Source method helps to develop and promote interest in the study of social science in the right perspective.

3.4.3 Advantages

- The original sources serve as an effective means for creating a right type of atmosphere.
- The method initiates the pupils in research.
- It supplements classroom regular lesson.
- It promotes the interest in the study of the subject.
- It initiates the students in social studies research.

3.4.4 Disadvantages

- It is not always possible for the teacher to have easy access to the original sources.
- The source method of teaching social studies may be time consuming.

3.4.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Write down the three objectives of source method.

I. _____

II. _____

III. _____

Q.2. Which authentic materials can be used as sources to teach NEP 2020?

Ans._____

_____

_____

_____

3.4.6 Point for Discussion

Recollect your previous experiences and think about the original sources used by you during your UG and PG classes. Discuss about the utility of the sources among your peers. Think and use some original sources in various forms to make your day to day teaching more effective.

3.5 Supervised Study Method

3.5.1 The Concept

- The supervised study refers to the supervision of a group or class of pupils by the teacher as they work at their own desks and tables.

- Students can study in the classroom with teacher guidance when they participate in supervised study. During group-supervised study sessions, teachers can help students.
- They facilitate to develop excellent study habits, address issues with their studies, and build relationships with them as individuals
- A supervised study is one that is carried out under close observation. Supervised study is the term used to describe the situation in which students participate in learning activities under the teacher's well-organized supervision in real life. It might be individual or group, depending on the situation.
- With crammed classrooms and a demanding curriculum, the Indian environment makes guided study even more necessary. There is typically a mix of brilliant, average, and below average pupils in each of the classes. Thus, a teacher cannot accommodate each student's unique needs. Supervised research has the potential to address this dilemma.

3.5.2 The important features of this method are as follows :

- Teacher is always ready to direct and serve as an aid to the learners.
- It emphasizes on individual attention.
- Provides better pupil teacher relation.
- Development of skills is focused.

3.5.3 Skills developed by Supervised Method :

- Skill to read original social studies material.
- Skill to use encyclopedias.
- Skill to use dictionaries.
- Skill to use maps, atlases, indexes and almanac etc.
- Skill to read and analyze graphs.

3.5.4 Advantages of Supervised Method

- It makes pupils efficient in solving problems themselves. The ability to think independently and creatively can be developed.
- It improves teacher pupil relation and enables the teacher to know the abilities of the pupil. Democratic human relations are encouraged.

- It reduces the failures and helps the below average student if any to fill up the gap.
- It develops confidence and self-discipline.
- It helps for on the spot correction.
- Discipline problems can be avoided with less time in transit for students.
- It can lead gifted and promising students to independent study.

3.5.5 Disadvantages

- Sometimes teacher may start playing secondary role in the teaching learning process.
- Bright students may not be attended.
- It requires the lengthened school day, which is not possible due to various pressures of co-curricular activities.

3.5.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Describe the Supervised method in brief .

Ans._____

_____

Q.2.Write the skills developed by Supervised method.

I. _____
II. _____
III. _____
IV. _____
V. _____

3.5.7 Point for Discussion

Have you ever been supervised by your teacher during your higher education period in UG and PG classes during classroom teaching .Recollect the benefits and enrich yourself in light of the above method. Involve your peers too. Design your future teaching as per your best knowledge about the implementation of this method.

3.6 Co-Operative/ Collaborative Learning Method

3.6.1 The Concept

- Co-operative learning method is used to achieve a common goal in small group. This method is used at every level of education. This method facilitates to organize classroom activities into academic and social learning experiences. It is not at all same as group work, and explains as 'structuring positive interdependence'.
- In cooperative learning, classes are organized around small groups that collaborate in a way that makes the success of each group member contingent on the success of the group as a whole. With this type of training, students collaborate in groups to typically accomplish a predetermined assignment.
- The terms cooperative and collaborative are used synonymously.

3.6.2 Reasons for using Co-operative Learning Method

- As compared to traditional lecture method, supervised method helps the learner to learn significantly, remember it long duration and develop better critical-thinking
- Students enjoy cooperative learning more than traditional lecture so they are more likely to attend classes and finish the course.
- Through cooperative learning, students can acquire the skills required to work on tasks that are too complicated and difficult for one individual to do in a fair length of time.
- Cooperative learning processes prepare students to assess outcomes linked to accreditation.
- This method can help students develop leadership skills and the ability to work with others as a team.
- However, gifted students are often placed in groups with non-gifted children, sometimes with the goal of having the gifted student help the others, either directly or

by example. In these instances, the gifted student is not likely to learn anything new, while the non-gifted students are not likely to develop any leadership skills.

3.6.3 Advantages of Co-operative Learning

- It develops self-confidence and self-discipline.
- It develops discovery attitude in the child.
- It is based on the principle of individual differences,
- It is democratic and scientific in nature.
- The child is remaining active throughout the execution of the project.

3.6.4 Disadvantages of Co-operative Method

1. Each member of the team will likely work at a different pace that can derail a project unless they're brought on the same page
2. Sometimes your goals may not align with your coworkers' and this can cause a rift or conflict that can impact the project and your performance
3. Those who are more outgoing may dominate conversations and meetings overshadowing the quieter members of the team.

3.6.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Explain Co-operative method.

Ans._____

_____

Q.2. Write down the two reasons for using Co-operative method.

I. _____

II. _____

III. _____

3.6.6 Point for Discussion

Recollect the learning ways during your own UG and PG classes in higher education. Explore if you took help of your peer group for comprehension of certain concepts and vice-versa. Ask your peers if they also used this in their cases. Correlate it with the cooperative/collaborative method and organize your lessons accordingly to bring the good points to the classroom learning mechanism.

3.7 Inductive-Deductive Method

3.7.1 The Concept

This is important method to teach humanities and social sciences. Inductive and deductive are two separate methods if used separately but for teaching of humanities and social sciences it is useful to use them in an integrated manner. Inductive -deductive method facilitates a scientific way of teaching-learning. It is also used effectively in teaching of other subject contents (also described briefly in second unit of this module).

3.7.1.1 Inductive Method

- Inductive method is a procedure to prove a universal law by showing that if it is true in particular case it is also true order to similar cases. In this method we proceed from concrete to abstract, from particular instance to general conclusions. Concrete examples are provided and with the help of examples the student are guided to come certain conclusions that may lead to the particular principle.
- Students using these methods must not accept a law or principle that has already been discovered without understanding how it was established. They use inductive reasoning, which aids in its discovery.

3.7.1.2 Advantages of Inductive Method

1. Inductive method is based on psychological law of learning.
2. This method give importance to individual differences, thus we can say that it is student centre method.
3. Inductive method involves active participation of student.
4. It also developed curiosity among learners.

3.7.1.3 Disadvantages of Inductive Method

1. It is no economical method.
2. There is possibility that learner may adopt wrong generalization.
3. It is not applicable for all types the topic.

3.7.2.1 Deductive Method

- The deductive technique is essentially the opposite of the inductive method in that facts are inferred through testing or the application of known formulas. In this case, the facts are inferred by experimentation or the application of a known formula. In this case, the method is confirmatory rather than explicative.
- Using this approach, we move from the general formula to the specific example, going from general to particular, abstract to concrete. Students using this method are instructed to accept the pre-constructed fact, formula, or broad truth as a well-established reality before applying it to several specific, pertinent problems.
- Both approaches should be employed for the social sciences to be taught effectively since the deductive method applies the deductive results, while the inductive method establishes principles or draws generalizations from specific method examples.

3.7.2.2 Advantages of Deductive Method

1. Deductive instruction fosters the growth of pupils' logical and coherent thought processes. They discover how to use logic to make wise decisions.
2. It's easier for pupils to understand new material when it's introduced to them from prior knowledge. This approach makes connections between new and old concepts.
3. This method of instruction is structured. It takes pupils step-by-step through difficult subjects, simplifying them.
4. Students who use this strategy arrive at definitive answers. It gives them a clear picture of the outcomes of their learning.

3.7.2.3 Disadvantages of Deductive Method

1. The knowledge acquired using this approach is not stable or durable.
2. It promotes the memorization of information, which leads to knowledge being useless since facts are quickly forgotten.

3. This approach is neither psychologically sound nor unnatural for children who do not learn how to appreciate abstract concepts in the lack of a concrete example.
4. Student's imitation and self-confidence are not fostered.

3.7.3 Self-Check Exercises

Check Your Progress

Note : Answer the following questions you may also check your answers related to the questions from the content given in this unit of module.

Q.1. Inductive method proceeds from _____ to _____

Q.2. Write down the three disadvantages of Inductive method.

I. _____
II. _____
III. _____

Q.3. Write down the three advantages of Deductive method.

I. _____
II. _____
III. _____

3.7.4 Point for Discussion

Recollect about the examples of variety of problems faced by you in your community/society in which you live. Analyze each of them scientifically to categorize them into various groups according to their nature. Can you find a single principle behind the variety of problems? Explore this principle again to work out examples of problems from other community/society with help of your peers. You can use the same ways and means to teach variety of subject contents in humanities and social-sciences in real classrooms in higher education.

METHODS OF TEACHING LANGUAGES IN HIGHER EDUCATION

4.0 Introduction

It is obvious from the previous three units of this module that 'various types of ways and means i.e. teaching methods' can be employed to achieve the learning outcomes in subjects of sciences, mathematics , and humanities and social sciences. Each subject of study and its related methods of teaching are interesting and useful. However in each teaching method and learning of each subject 'language' plays a pivotal role in teaching as well as learning. Therefore methods of teaching various languages are most significant. They not only enrich and motivate the learners but also enhance their ability to communicate effectively. Thus, this unit of the module focuses on variety of teaching methods to be used for teaching of languages. The brief description of various methods are given below in different sections and related sub-sections.

4.1 Natural Method

4.1.1 The Concept

- The traditional teaching-learning methodology is employed by the natural method. The word "natural" only means that the guiding principles of the direct method are believed to be in line with the naturalistic principles of children's language learning.
- It is conceived that the natural method adheres to the naturalistic principles necessary for successful second language acquisition.

4.1.2 There are two main avenues of language acquisition :

i. **Communicative Acquisition :** This involves using the target language in natural communication settings, where students are encouraged to utilize the language without focusing explicitly on its structures. Here, the emphasis lies on practical communication rather than theoretical understanding.

ii. **Structural Awareness :** This pertains to learning the formal structures and rules of the language, gaining conscious knowledge of its grammar and syntax.

4.1.3 Key Characteristics

- **Emotional Readiness** : Creating an emotionally conducive environment for learning, where learners spend significant time listening before attempting production.
- **Communication as Primary** : Prioritizing communication skills, as the approach centers on teaching learners to effectively communicate in the target language.
- **Total Physical Response (TPR) :** Advocating the use of TPR activities, particularly in early language learning stages, to facilitate comprehension and acquisition.
- **Meaningful Communication :** Stressing that language acquisition occurs when learners understand and engage with meaningful messages in the target language.
- **Dual Pathways of Language Development :** Recognizing two distinct routes to language proficiency : acquisition, which mirrors first language development, and conscious learning, which involves understanding and using language for meaningful communication.

According to Krashen and Terrell (1998), some factors like motivation, attitude , anxiety significantly influence second language learning.

4.1.4 Advantages

- Natural approach in teaching language based on the self-monitoring.
- The teachers have to monitor the students' classroom activities.
- The efficiency of teaching very much depends on learners' motivation, skills, and willingness or ability to cooperate work as a community.
- Most teachers and researchers agree that we are all too prone to insist that learners speak right away, and so we can take from the natural approach the good advice that a period of time, while students grow accustomed to the new language.

4.1.5 Disadvantages

- The focus of the activity is content not language learning.
- Resource to the learner's native language is seen as natural and desirable.
- Learners are not expected to give error free, native responses to teacher questions.

- The goal is the gradual adoption of the communicative language.

4.1.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Describe Natural Method of language teaching.

Ans._____
_____
_____

Q.2.Write down the three disadvantages of Natural Method of language teaching.

I. _____
II. _____
III. _____

4.1.7 Point for Discussion

Recollect and think of your childhood. Explore the childhood days of your acquiring the mother tongue in your family and peers in company of people over there. It has been a very simple way of acquiring language without any extra burden. Discuss with your peers as to how the same setting can be developed for learning of language you /student aspires. Use the same ways and means of learning a language in your classrooms in higher education.

4.2 Communicative Approach

4.2.1 The Concept

- The Communicative Approach emerged in the 1970s as a response to the limitations of previous methods that focused on grammar rules and rote memorization. It was a shift

towards a more student-cantered, interactive, and context-based approach to language teaching.

- The central idea is that language learning should mirror the way people naturally acquire language through communication. Language serves specific functions such as arguing, persuading, or promising, and these functions are integrated into the teaching and learning process.
- Teachers select language expressions that facilitate students' understanding of the target language.

4.2.2 Characteristics :

1) **Focus on Communication :** Emphasizes the use of language for real communication rather than just rote learning of vocabulary and grammar rules. It gives more importance to developing speaking and listening skills in authentic contexts.
2) **Task-Based Learning :** It encouraged students to engage in activities or tasks that require communication to achieve a specific goal. Tasks may include problem-solving, role-playing, and collaborative projects**.**
3) **Authentic Materials :** Utilizes authentic materials such as newspapers, videos, and real-life scenarios to expose learners to genuine language use.
4) **Interactive and Collaborative Learning** : Promotes interaction between students and between students and the teacher. Fosters a collaborative learning environment where students work together to achieve communicative goals.
5) **Focus on Fluency over Accuracy :** Values fluency and effective communication over grammatical accuracy during the initial stages of learning**.**

4.2.3 Advantages

- It prepares learners to use the language in real-life situations, enhancing practical language skills.
- Encourages motivation as students see the relevance and applicability of what they are learning.
- Language learning occurs through communication.
- Classroom activities aim for authentic and meaningful communication.

- Fluency is prioritized in communication.
- Communication integrates different language skills.

- Learning involves a process of creative construction and trial and error.

4.2.4 Disadvantages

- Uncertainty regarding the language students will use.
- Expectation for students to interact with others, either in person or through written communication.
- Implementing communicative activities may take more time than traditional methods, making it challenging in settings with time constraints.

4.2.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. What is the central ideas of Communicative approach?

Ans._____

_____

_____

Q.2.Write down the three characteristics of Communicative approach.

I. _____

II. _____

III. _____

4.2.6 Point for Discussion

Think of a social setting when you visit a new place where the inhabitants cannot understand your language. Explore the ways and means through which you communicate in such a situation. Discuss the identified ways among your peers and use the identified ways and means by integrating with the above method in your classrooms in higher education.

4.3. Grammar-Translation Method

4.3.1 The Concept

- Grammar-translation Method focuses on teaching grammar in second languages, mainly through translation. Speaking and listening receive minimal attention, while reading and writing are prioritized.
- The learner's native language is used as a reference system, and teachers are viewed as authorities in this teacher-cantered approach.
- Critics argue that this method frustrates students with excessive memorization and lacks attention to communicative competence.
- The Grammar-Translation Method's ease of application and low demands on teachers contribute to its continued popularity.

4.3.2 Objectives :

- **Grammar Instruction :** Emphasizes learning grammar rules through translation.
- **Translation Skills :** Develops the ability to translate between the target and native languages.
- **Limited Focus on Communication :** Places little emphasis on developing communicative competence.
- **Passive Learning** : Learners are often passive recipients of information rather than active participants.
- **Ease of Application :** Relatively easy to implement with few demands on teachers.

4.3.3 Role of Student :

- Students are passive recipients of grammar and translation instruction.
- Limited emphasis on active participation or negotiation of meaning.
- Little opportunity for students to contribute to the learning process or learn interdependently.

4.3.4 Role of Teacher :

- Authority Figure : Teachers are seen as authorities who impart knowledge to students.
- Focus on Grammar Instruction : Primarily responsible for teaching grammar rules and overseeing translation activities.
- Limited Facilitation of Communication : Minimal role in facilitating meaningful communication among students.

4.3.5 Advantages

- Helps raise learners' conscious awareness of grammar rules and structures.
- Can clarify misunderstandings and aid in the learning process.
- Encourages learners to actively engage with the formal features of the target language.

4.3.6 Disadvantages

- Neglects the development of communicative competence.
- Can frustrate students with excessive memorization of grammar rules and vocabulary.
- Teachers may struggle to predict how students will use language in real-life situations

4.3.7 Self – check exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Which language is used as a reference system in grammar translation method?

Ans._____

_____

_____

Q.2. What is the position of teachers in grammar translation method?

Ans._____

_____

_____

Q3. Write down two objective of grammar translation method.

I. _____

II. _____

4.3.8 Point for Discussion

Think about your ability to listen, comprehend, learn and use the language you know well. Discuss with your peers knowing languages other than your own. Explore about rules and principles reflected in each of the languages for being meaningful and used appropriately by all. Similarly while teaching a language to higher education students you can explore the languages used by them and correlate with the above method for learning grammar of the language and comprehending rules of translation of the language.

4.4. The Direct Method

4.4.1 The Concept

- The Direct Method represents a departure from the Grammar-Translation Method by prioritizing the target language for instruction and communication in the classroom while avoiding the use of the first language and translation.

- The Direct Method of teaching language emphasizes immersive communication in the target language from the outset, avoiding translation and focusing on real-life situations.
- It aims to develop learners' ability to understand and use language in practical contexts rather than memorizing grammar rules.

4.4.2 Objectives

- It used to engage learners in using the target language for practical communication.
- It gives emphasis on spoken language skills over written language.
- It integrates language learning with real-life situations and contexts.
- Direct method gives significance on learning language through exposure and practice rather than explicit instruction learning.
- It helps to develop of the cultural context in which the language is used.
- This method also encourages students to actively engage in speaking and listening activities.
- Focuses on understanding language within its cultural and situational context.

4.4.3 The Role of Teacher

A teacher acts as a model and facilitator. He or she used to correct language and facilitate communication among students. The teacher is also guiding the student through language activities and providing support as needed. Teachers also provide available material to aid in language learning.

4.4.4 Advantages

- Encourages rapid acquisition of language skills through immersion.
- Promotes natural language use in authentic contexts.
- Engages students in active participation and communication.
- Enhances understanding of the cultural context of the language.
- Prioritizes oral proficiency for effective communication.

4.4.5 Disadvantages

- May neglect explicit instruction of grammar rules.
- Assessing written language skills may be challenging due to the emphasis on oral communication.
- Effectiveness of the method may depend on the proficiency and teaching skills of the instructor.
- Students may feel frustrated if they encounter difficulties in understanding or expressing themselves in the target language.

4.4.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. What is the aim of the Direct Language teaching method?

Ans._____

_____

_____

Q.2. Explain the role of teachers in the direct language teaching method?

Ans._____

_____

_____

4.4.7 Point For Discussion

Think of a situation in which you visit a new locality and know nothing about the language of the place. Nobody is aware about your language. Thus to survive properly you have to learn the new language i.e. the target language. Explore the ways to be used by you to learn the target

language. Correlate those ways with the above mentioned ways of target method. Integrate the two and use it in your real classroom language teaching-learning situation in higher education.

4.5. The Audio-Lingual Method

4.5.1 The Concept

- The audio-lingual method of language teaching is rooted in linguistics and psychology, particularly behaviourism. It emphasizes stimulus-response learning, with a focus on error-free mastery of language elements and rules.
- This method advocates for the separation of language skills, prioritizing listening and speaking. Dialogues and drills are central to classroom practices.
- The audio-lingual method, which has been teaching foreign languages for a long time, is one of the most well-liked approaches.
- It has made significant contributions to language learning, such as attempting to make language acquisition accessible to large numbers of average learners by suggesting that language instruction should be structured so that mastery of a language does not require exceptionally high levels of abstract reasoning. Furthermore, it placed a strong emphasis on syntactical progression, whereas earlier approaches had a tendency to focus more on vocabulary and morphology.

4.5.2 Objectives

- The audio-Lingual method emphasizes mastering language elements.
- This method views language as a system to be learned as a tool.
- It focuses on correct responses and reinforcement.
- It trying to addresses errors through repetition and drills.
- Organizes language learning without demanding abstract reasoning method itself.

4.5.3 Advantages

Instructional materials in the audio-lingual method assist in developing language mastery, providing structured sequences of lessons, dialogues, drills, and exercises. Textbooks offer cues for drills and exercises, enhancing learning.

4.5.4 Disadvantages

The method is primarily teacher-oriented, with limited student involvement in the early stages. Student textbooks may not be utilized initially, as exposure to printed words could distract from aural input.

4.5.5 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. _____ and _____ are the central to classroom practices in the Audio-lingual Method of language teaching.

Q.2. Write down the advantages of the Audio-lingual Method of language teaching.

Ans._____
_____

4.5.6 Point for Discussion

Recall the instances when your teacher used audio devices to teach. Reflect on a previous teaching experience where you applied the principles of the Audio-Lingual Method in a higher education setting. Discuss, as to how the emphasis on habit formation, mimicry, and controlled practice influenced your instructional strategies. Share specific examples of audio-based activities or exercises you may use to develop students' listening and speaking proficiency while its use in your classrooms in higher education. Also, reflect on the challenges you may encounter while teaching.

4.6. Communicative Teaching Method

4.6.1 The Concept

- Under the influence of various applied linguists, socio-linguists, and philosophers the communicative method emerged in language teaching.
- It prioritizes communicative proficiency over mere mastery of structures.
- It aims to develop learners' ability to use language effectively in real-life situations. The basic purpose is to develop communicative competence for learning in learner.

4.6.2 Objectives

- Under integrative and Content Level it emphasizes communicative proficiency over structural mastery.
- Communicative teaching method views language as a tool for communication in linguistic and instrumental level.
- It supports learning by making language meaningful to the learner.
- It gives importance to individual Learning needs as negotiators in communication.
- Promotes real communication and meaningful tasks in language learning.

4.6.3 Role of Student

Students are expected to be negotiators in communication, actively participating and contributing. They are encouraged to engage in real communication and meaningful tasks. Learners develop linguistic and communicative competence through interaction.

4.6.4 Role of Teacher

Teachers act as organizers, guides, analysts, counsellors, and group process managers. They facilitate communication, provide guidance, and support learners' needs.

4.6.5 Advantages

- This method focuses on communicative proficiency, making language learning more effective.

- It focused on emphasizes real communication and meaningful tasks in classroom activities.
- It helps to develops both linguistic and communicative competence in learners.
- It encourages creativity and active participation in language learning.

4.6.6 Disadvantages

- It creates challenges in applying the method at all levels of teaching.
- Evaluation of communicative competence can be complex.
- Non-native teachers may face difficulties in implementing the method.
- Adoption of the method in settings requiring grammar-based tests may pose challenges.
- Addressing these issues can lead to better application of the communicative method in language teaching.

4.6.7 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. What is the basic purpose of the Communicative Method?

Ans._____

Q.2. Write down the role of teachers in the Communicative teaching method.

Ans._____

_____

4.6.8 Point for Discussion

Think of the various methods, strategies and practices used by your Language teachers to improve proficiency in communication. Evaluate those strategies and their effectiveness in your learning as a student. Being a person with first-hand experience of those situations suggests more ways which can be used. Choose a suitable topic in your subject and plan how you will teach using the Communicative Language Teaching Method. Discuss specific examples of communicative activities or tasks that you may use to meet learners' needs and promote meaningful learning. Share the challenges and effectiveness of this method among your peers too.

4.7. Situational Language Teaching (SLT) Method

4.7.1 The Concept

- Like the Direct Method, Situational Language Teaching adopts an inductive approach to the teaching of grammar.
- The meaning of words or structures is not given through explanation in either the native language or the target language but is induced from the way the form is used in a situation.
- It aims to develop a practical command of language skills, emphasizing accuracy in pronunciation and grammar.

4.7.2 Objectives

- Its aims to develop practical command of language skills.
- It focused on accuracy in pronunciation and grammar.
- It always encourages active participation and response to questions and commands.
- It stresses the importance of avoiding errors and developing correct language habits.
- Teaches language structures orally before introducing them in reading and writing.

4.7.3 Role of Teachers

The teacher serves as a model during the presentation stage, setting up situations and modelling the target structure for students to repeat. They manipulate questions and commands to elicit correct sentences, organize review, and adjust to individual needs.

4.7.4 Advantages

- Relies on textbooks and visual aids for structured lessons around different grammatical structures.
- Visual aids, such as wall charts and flashcards, support the graded syllabus and enhance learning.
- Emphasizes controlled to freer practice of structures and oral use of sentence patterns.

4.7.5 Disadvantages

- Classroom procedures vary based on class level, aiming to transition from controlled to freer practice.
- Success in Situational Language Teaching depends on effective progression from oral to automatic use in speech, reading, and writing.

4.7.6 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. What is the aim of Situational language teaching method in language teaching?

Q.2. Write down the role of teachers in the Situational language teaching method in language teaching.

Ans._____

_____

4.7.7 Point for Discussion

Recall your classroom experiences as a student of a Grammar subject (in any language) and share the approaches used by your teacher/s. Explore other approaches to emphasize on the practical aspects while teaching grammar? Share specific examples of situational contexts you can create or utilize to contextualize language learning for your students in higher education. Also, reflect on the challenges you may encounter while using the SLT method. Based on your reflection, propose some adaptations that can be done.

4.8. The Silent Way

4.8.1 The Concept

- The Silent Way emphasizes the importance of learner participation while minimizing teacher intervention.
- It focuses on learners producing language while using physical objects and problem-solving techniques to facilitate learning. Materials such as colour charts and learning aids are used.
- The approach aligns with learning theories emphasizing discovery, object mediation, and problem-solving.

4.8.2 Objectives

- Its aims to develop oral and aural proficiency in basic language elements.
- The silent way method emphasizes correct pronunciation and mastery of prosodic elements.
- Encourages independence, autonomy, and responsibility in learners.
- This method stress on individual Learning Needs and expects learners to rely on themselves and the group for correction and improvement.
- Uses gestures, charts, and manipulative creatively to elicit and shape student responses.

4.8.3 Role of student

- Encourage independence, autonomy, and responsibility.

- Foster self-correction and generalization.
- Promote cooperative learning over competition.
- Cultivate comfort in giving and receiving peer feedback.

4.8.4 Role of teacher

- Embrace teacher silence, a challenging aspect for traditional educators.
- Tasks include teaching through nonverbal cues, eliciting responses, and discreetly monitoring student interactions.
- Teachers must be adept at using gestures, charts, and manipulative to facilitate student learning creatively.

4.8.5 Advantages

- Promotes active learner participation and production of language. Uses physical objects and problem-solving techniques to facilitate learning.
- Encourages independence and autonomy in learners.
- Strives for near-native fluency and practical knowledge of grammar and culture.

4.8.6 Disadvantages

- The unique demand for teacher silence can be challenging for traditionally trained teachers.
- Teacher tasks require creativity and facilitation skills beyond traditional teaching methods.
- Success relies heavily on effective implementation and interpretation of nonverbal cues by the teacher.

In summary, the Silent Way teacher plays multiple roles, guiding the learning process subtly and creatively without dominating student interaction.

4.8.7 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Explain the role of the students in the Silent Way in language teaching.

Ans._____

_____

Q.2. Write down the role of students in the Silent Way in language teaching method.

Ans._____

_____

4.8.8 Point for Discussion

Recollect your UG and PG experiences where your teacher encouraged more student responses /interaction to find the answer, using only nonverbal cues, and gestures and showing charts/objects. Discuss as to how the emphasis on learner autonomy, discovery, and problem-solving influence the instructional approach. Identify a topic and use 'The Silent Way Method' in your subject teaching in higher education. Share specific techniques and materials you may use to encourage students to actively engage with the learning process while minimizing your intervention and discreetly monitoring student interactions. Also, reflect on the challenges and your plan to overcome them while teaching.

4.9. Community Language Learning (CLL)

4.9.1 The Concept

- Charles A. Curran and his associates developed Community Language Learning (CLL), applies psychological counselling techniques to language learning, known as Counselling-Learning.

- It adapts certain counselling principles, redefining the teacher as a counsellor and learners as clients.
- Community Language learning adopted counselling –learning theory use to teach languages.

4.9.2 Objectives

- CLL focuses on social linguistic competence, not explicit linguistic goals.
- Unlike conventional syllabi, CLL progresses based on learner-chosen topics and communication needs.
- The teacher facilitates learner communication by conveying meanings at their proficiency level.
- Specific language elements are addressed as they arise from learner interactions.

4.9.3 Role of Learner

- Students engage in open conversation, discussing learning experiences and emotions.
- Learners form a community, collaborating in learning rather than individual achievement.
- They actively participate, providing meanings, repeating target utterances, supporting peers, sharing feelings, and counselling others.

4.9.4 Role of Teacher

- The teacher adopts a counselling approach, responding supportively to student needs.
- Initially, the teacher provides translations and models for imitation, gradually allowing student-initiated interactions.
- As students' progress, the teacher corrects errors, offers advice, and facilitates language usage.
- The teacher's role evolves from a nurturing parent to a facilitator dependent on learner assistance, fostering student self-worth.

4.9.5 Advantages

- Emphasizes a supportive and collaborative learning environment.
- Allows learners to freely express communicative intentions and feelings.
- Integrates various learning tasks and activities to cater to diverse learner needs.
- Fosters independence and autonomy in learners within a community setting.

4.9.6 Disadvantages

- Success heavily relies on effective implementation of counselling techniques by teachers.
- Requires significant teacher training and expertise in counselling methods.
- May not be suitable for all learners or classroom settings, particularly those with limited teacher-student interaction time.

4.9.7 Self-Check Exercises

Check Your Progress

Note : Answer the following questions. You may also check your answers related to the questions from the content given in this unit of module.

Q.1. Who applied Communicative Language Learning (CLL) in language teaching?

Ans._____

Q.2. Write down the disadvantages of Communicative Language Learning (CLL) in language teaching.

I. _____
II. _____
III. _____

4.9.8 Point for Discussion

Recall your experiences as a student of the Language subject where your teacher used counseling approach in his/her teaching. Discuss which principles of the ‘Community Language Learning (CLL) Method’ were incorporated into that language class interaction. Share specific strategies that you may use to create a supportive and inclusive learning environment where students may feel comfortable taking risks and expressing themselves in the target language. Reflect on the challenges you may encounter and the plan to overcome them while using CLL method.

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