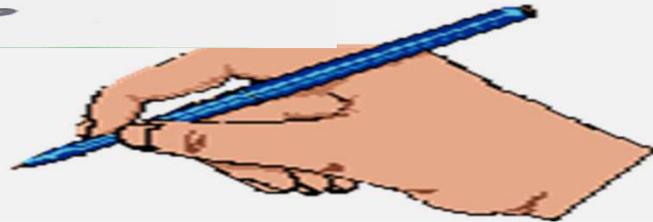




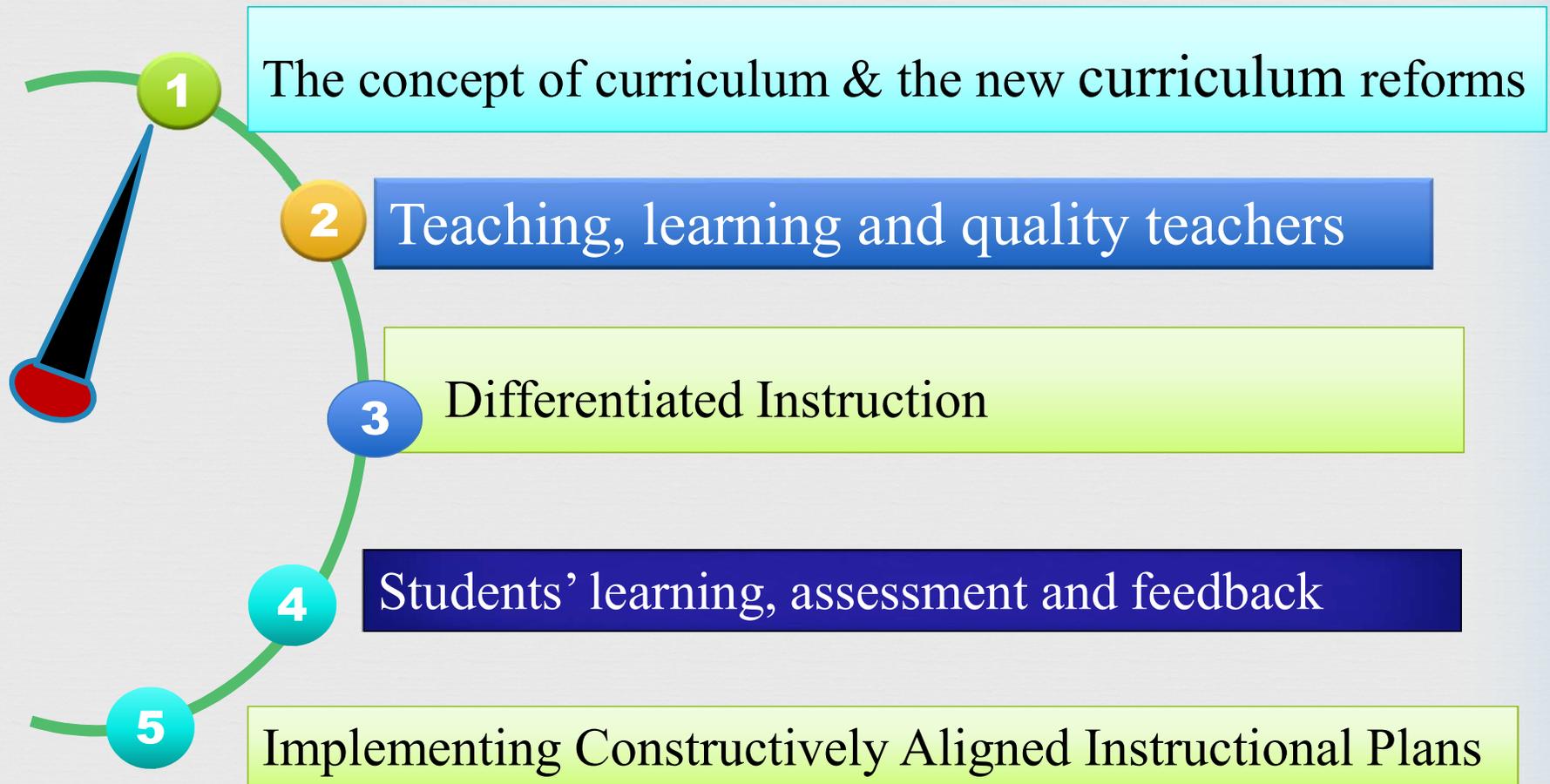
# General Pedagogy Module



**Special Capacity Building Training Program for Secondary  
School Teachers on  
General Pedagogy**

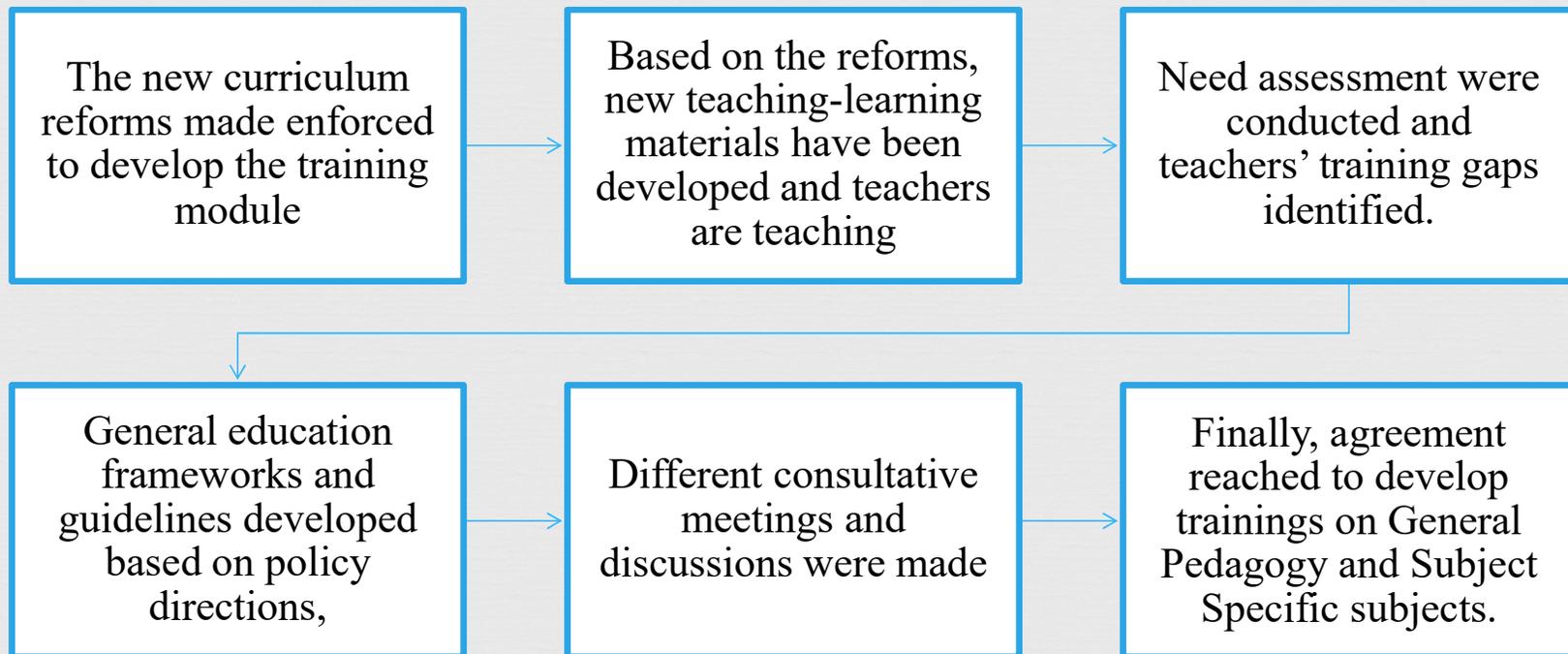
**By Tadesse Melesse (Professor)**

# Presentation Outlines



# Day One

## Module Introduction (Justifications)



# General Pedagogy

## Goal

- ☞ The ultimate goal of this *General Pedagogy* is to create a platform for trainees to discuss and share their experiences, to trigger and motivate them to be inquirers of knowledge, skills, and values; to link their training with the school-based continuous professional development (CPD) and ultimately to further develop the creative, emotional, and social learning of their students.

## Principles that guide the training program:

- ☞ It is anchored in the new curriculum;
- ☞ It is rooted in the lived experiences of the teachers and the learners;
- ☞ It applies both the pedagogy of investigation and the pedagogy of enactment;
- ☞ It involves inclusiveness and diversity in instruction;
- ☞ It ensures teacher learning as lifelong learning (teacher learning continuum);

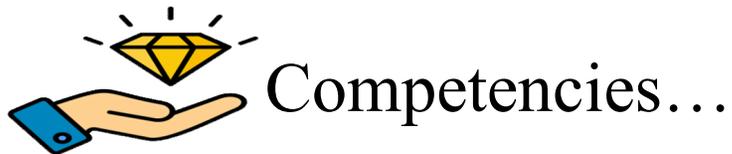
# Purpose of the module

- ☞ Introduce the major curriculum concepts ,components and major reforms of the new general education curriculum. 
- ☞ Provide reliable information to trainees about the qualities and knowledge areas of effective or ideal teachers.
- ☞ Provide opportunities to explore their students' differences and the mechanisms of accommodating the student differences in their classroom teaching through DI.
- ☞ Aware the application of gender-responsive and inclusive classroom environments.
- ☞ Apply the different active learning strategies that help students acquire the necessary knowledge, skills, and values.
- ☞ Provide the different concepts of classroom management and gadgets to create a conducive classroom environment for learners and managing large class sizes.
- ☞ Aware of the concepts, purposes, and tools of continuous assessment strategies.
- ☞ Aware the constructively aligned instructional planning and skills of developing it <sup>6</sup>



## Module Competencies

- After completing the training of this module, trainees are expected to:
  - ✓ Equip trainees with the knowledge, skills, and attitudes of the new curriculum reforms appropriate for developing competency-based curriculum.
  - ✓ Solidify the trainees' conceptual and practical understanding of learning and teaching with Ethiopia's new competency-based curriculum
  - ✓ Equip with the necessary knowledge and skills to identify diverse student characteristics, how they learn and know the contents, and accommodating these diversities through applying differentiated instruction in their classroom teaching.
  - ✓ Develop professional knowledge, professional practice, and professional engagement of trainees both individually and in groups.



## Competencies...

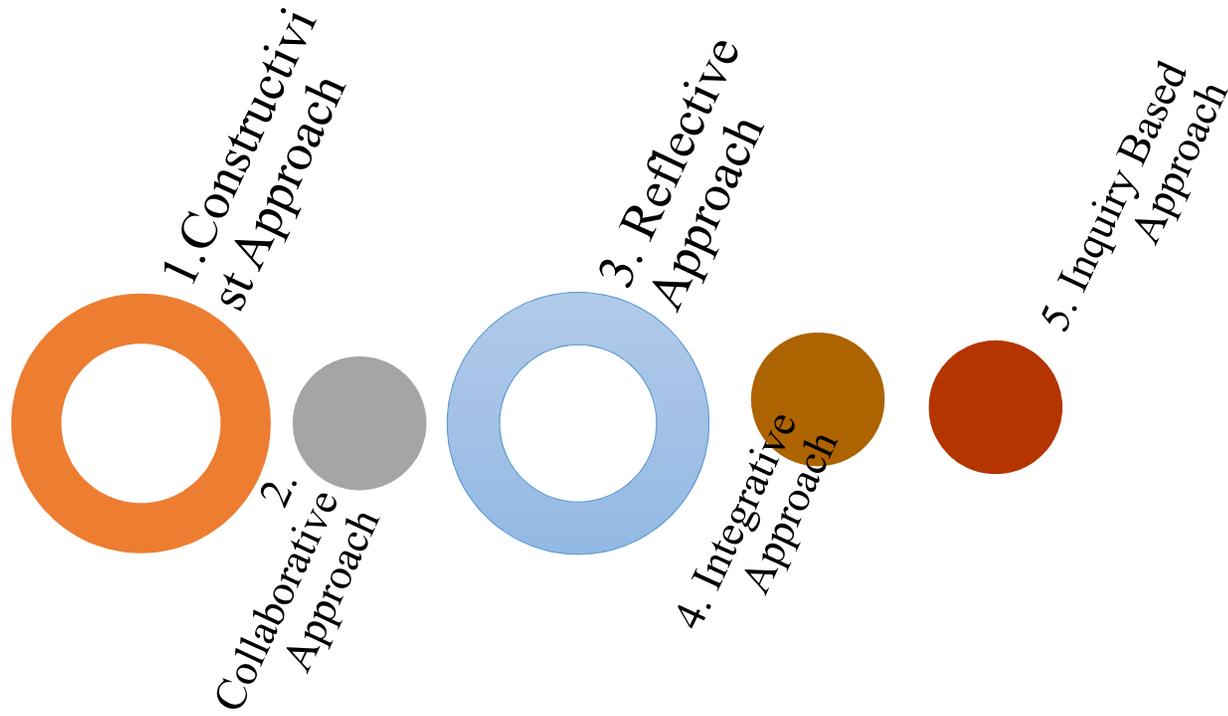
- ✓ Equip them with practice-based, context-based, and learner-centered training methods that they will use to deliver in their classroom teaching.
- ✓ Acquaint trainees with the knowledge, skills, and attitudes of applying the various active learning strategies in their classroom teaching practices.
- ✓ The desire to and conviction towards facilitation of learning as espoused in the reformed curriculum and creating and maintaining supportive and safe learning environments.
- ✓ Develop the capacity to assess, run follow-up or monitoring, provide feedback, and report on students' progress towards the desired level of competence using carefully designed tools.
- ✓ Equip trainees with the capability of developing lesson plans to implement effective teaching and learning.

# **Pedagogical Approaches**

Pedagogical approaches refer to the methods and strategies used by educators to facilitate learning. Different approaches can be employed based on educational goals, student needs, and subject matter.

Here are some common types and natures of pedagogical approaches:

# Pedagogical Approaches



- **The constructivist approach** is based on the idea that people actively construct or make their own knowledge, and that reality is determined by your experiences as a learner.
- **The collaborative/cooperative approach** involves trainees
  - ✓ working together on activities or learning tasks in a small group to process and synthesize information,
  - ✓ develop higher-level thinking, oral communication, self-management, and leadership skills,
  - ✓ promote student-faculty interaction, and increase in student retention, self-esteem, and responsibility.
- **Reflective Practice** is a method of assessing trainees'
  - ✓ thoughts and actions for personal learning and development through self and peer evaluations

- **Integrative learning** is a teaching pedagogy that helps trainees
  - ✓ connect concepts they're learning to real-world experiences,
  - ✓ adapt to the needs of a rapidly changing workplace, and
  - ✓ help learners develop the transferable skills needed and develop a deeper understanding and appreciation for their subject area.
- **The inquiry-based approach** encourages learners
  - ✓ to engage in exploration, investigation, research, and study.
  - ✓ It begins with presenting questions, scenarios, or problems that require critical thinking to solve,
  - ✓ which is vastly different from other approaches where facts are presented simply (7 E's -*engaging, exploring, explaining, extending, experimenting & interpreting, evaluating & communicating results*).

# Assessment Recommendations

- ✚ Both formative and summative assessment techniques will be employed.
- ✚ During the training process, continuous-based assessment will be conducted mainly for learning and feedback purposes.
- ✚ This ongoing assessment will be carried out to identify achievements and shortcomings in the delivery of the module and appraise the overall execution of the pedagogy.
- ✚ Finally, end-of-course assessment will be administered to gain a summative appraisal of the module.
- ✚ After trainees have completed the training and its impact on their actual school practices, a follow-up evaluation will be conducted using a questionnaire, interview, portfolio review, or classroom observation.

# Structure of the Module

- Unit One: The Concepts of Curriculum and the New Curriculum Reform (5 hrs.)
  - Session 1.1: Components of a curriculum
  - Session 1.2: Major shifts in the new curriculum and reasons for change
  - Session 1.3: Competence-based Curriculum and Instruction
- Unit Two: Teaching-Learning and Quality Teachers (8 hrs.)
  - Session 2.1: Knowledge areas of quality teachers
  - Session 2.2: Teaching, learning, and teacher quality
  - Session 2.3: Active learning strategies
  - Session 3.4: Experiential learning and inclusion of indigenous knowledge
- Unit Three: Differentiated Instruction (5 hrs.)
  - Session 3.1: Recognizing learners' diversity in classrooms and accommodating their diversity in learning
  - Session 3.2: Creating a gender-responsive and inclusive and classroom environment
  - Session 3.3: Instructional media usage versus students' learning styles and multiple intelligences
  - Session 3.4. Conducive classroom management & large class size
- Unit Four: Assessment and feedback practices (3 hrs.)
  - Session 4.1: Concepts and purposes of continuous assessment
  - Session 4.2: Tools of assessment and techniques of providing constructive feedback
- Unit Five: Creating and Implementing Constructively Aligned Instructional Plans (3 hrs.)
  - Session 5.1: Concepts of instructional planning and formulation of objectives
  - Session 5.2: Developing annual and lesson plans.

# Unit 1: The Concept of Curriculum & the New Curriculum Reform (5 hrs.)

## Unit Objectives

- After completing this unit, trainees will be able to:
  - ➔ Comprehend the concepts of curriculum.
  - ➔ Identify the components of curriculum materials teachers are expected to use.
  - ➔ Use appropriately the different curriculum materials in their classroom teaching.
  - ➔ Recognize the major reform areas and reasons for the reform.
  - ➔ Apply properly the major curriculum reforms in their classroom.
  - ➔ Appreciate the new curriculum reforms and major shifts.
  - ➔ Integrate horizontally & vertically the lessons they are teaching.
  - ➔ Analyze the concepts of competence-based curriculum & instruction.
  - ➔ Deliver competency-based instruction in their classroom teaching.

## Key Sessions

- **Session 1.1:** Concepts of curriculum and components of curriculum materials
- **Session 1.2:** Major reforms in the new curriculum and reasons of reform
- **Session 1.3:** Competence based curriculum and instruction

## **Unit 1: The Concept of Curriculum & the New Curriculum Reform....**

### **Session Objectives**

#### **Session 1.1:**

Concepts of curriculum & components of curriculum materials

- After completing this session, trainees will be able to:
  - Recognize the different concepts of curriculum.
  - Identify the planned and unplanned curriculum and their purposes.
  - Create awareness of the relevance of the informal, hidden, and null curriculum.
  - Understand the different components of the curriculum (teaching-learning) materials.
  - Apply both the planned and unplanned curriculum for students' learning.
  - Use the different curriculum (teaching-learning) materials jointly in their classroom teaching.

# Session 1.1

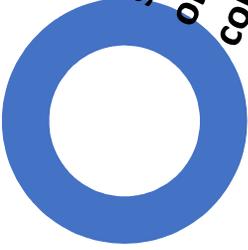
## Activities

- Do activity 1, 2 & 3 step by step.
  1. What is curriculum?
  2. Are schools addressing only the formal/planned curriculum?
  3. What major curriculum materials do you have at hand?
  4. What are the components of a flowchart and a syllabus?
  5. What is the link between the textbook & teachers' guide?
- Give Activity 4 as a home task for trainees.

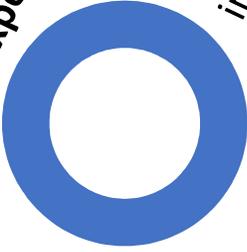
## Key Ideas

- *Curriculum*, as a dynamic field of study, has been characterized as elusive, fragmentary, and confusing.
- *Curriculum* is the vehicle through which a country empowers its citizens with the necessary knowledge, skills, attitudes, and values that enable them to be socially and economically engaged and empowered, for personal and national development.

# Curriculum...



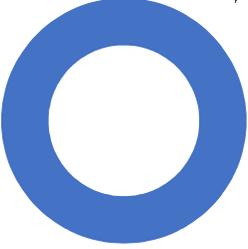
*A master plan  
for formulation  
of objectives,  
selection and  
organization of  
contents &  
learning  
experiences*



*A planned  
sequence of  
instruction*



*Both planned  
& unplanned  
instruction*



*The planned  
interaction of  
pupils with  
instructional  
content,  
materials,  
resources, and  
processes, and  
evaluating the  
attainment of  
educational  
objectives.*

# Types of curriculum

## **Hidden curriculum..**

- Hidden/implicit/convert/silent/invisible curriculum;
- The hidden curriculum is all those things that we teach in schools that are not written down in the syllabus documents..
- can be defined as the lessons that are taught informally, and usually unintentionally, in a school system..
- all the things that student pickup throughout their academic career that is not explicitly thought as part of the formal curriculum..
- These include behaviors, perspectives, and attitudes that students pick up while they are at school..
- The hidden curriculum comprises the unspoken or implicit values, behaviors, procedures, and norms that are not part of the formal curriculum;

cont'd

**null curriculum..**

- is that which is not taught. Sometimes the teacher ignores some content or skill, deliberately or unknowingly.. A teacher may consider some idea unimportant and ignore it. Similarly, teacher may avoid detailed description of some topic for the one or other reason, for example, evolution in biology..

**Planned/ Written curriculum...**

- Overt/explicit. Part of formal instruction of schooling experience..
- it is a specific and comprehensive plan which intends to ensure that the educational goals of the system are being accomplished at a school...

## Session1.2: Major reforms in the new curriculum and reasons for the reform

### Session Objectives

- After this session, trainees will be able to:
  - ✓ Understand the major reforms made in the general education curriculum
  - ✓ Analyze the reasons for changing the old curriculum.
  - ✓ Apply the major curriculum reforms in their classroom teaching
  - ✓ Appreciate the new reforms in the education structure and contents of each subject matter.
  - ✓ Identify the general education learners' profiles and general education learning areas learners are expected to take at different grade levels.

### Activities

1. Compare the previous reforms of TESO and PgDT in our teacher education programs? What were their strengths and weaknesses?
2. Currently also a new education reform was made. Why do you think is a curriculum reform needed?
3. Mention the critical problems of the previous general education curriculum of Ethiopia.
4. Differentiate the new curriculum reforms from the old.

# Key Ideas

## The new curriculum reform is:

- Competence based
- Indigenous knowledge focused
- Involving the 12st C skills
- Practice oriented
- Involving moral education
- Vocationalization of education
- Digitalising the curriculum

## Education structure of General education

- pre-primary,
- Primary (Grades 1-6),
- Middle level (Grades 7-8), and
- Secondary education (Grades 9-12).

 2(3)-6-2-4

## Lists of subjects

- Pre-primary
  - Primary
  - Middle
  - Secondary
- 

Pre-primary	Primary	Middle Level	Secondary	
			Grades 9 &10	Career & Technical Subjects (G.11 &12)
First language	First language	First Language	<u>Common Subjects</u>	Natural Science
Environmental Science	Federal language	A Federal Language	English	<u>Common Subjects</u> English, Mathematics
Personal & Social-Emotional Development	English, Mathematics Environmental Science	English Mathematics General Science Social Studies	Mathematics IT	Physics, Chemistry Biology, IT, Agriculture
Performing & Visual Arts Mathematics	Moral Education Performing & Visual Arts	Citizenship Education Citizenship Education	Physics, Biology Chemistry, Geography History	<u>Area based Subjects</u> Manufacturing Construction
Health & Physical Education	HPE	Performing & Visual Arts, HPE, IT	Citizenship Education Economics	Information Technology Health, Agriculture
		Career & Technology Education	First Language Health & Physical Education <u>Optional Subjects</u> A Federal Language Performing & Visual Arts	<b>Social Science</b> <u>Common Subjects</u> English, Mathematics, Geography, History, Economics, IT <b>Area based subjects</b> Language & Social Science Business, Performing & Visual Arts

# Day Two

## Unit Two: Teaching, Learning, and Quality Teachers (8 hrs.)

### Module Objectives

- *Understand the qualities of ideal or effective teachers*
- *Analyse the different professional attributes and standards of general education teachers*
- *Recognise the TPACK of teachers and other knowledge areas*
- *Understand the different active learning strategies to address learning diversity.*
- *Apply the various active learning strategies in their classroom teaching.*
- *Differentiate the roles of students and teachers in active learning*
- *Integrate experiential learning and inclusion of indigenous knowledge in the curriculum*
- *Appreciate the values of indigenous knowledge for students' learning.*

### Sessions

- **Session 2.1:** Quality teachers and professional attributes
- **Session 2.2:** Teaching, learning and qualities of ideal teachers
- **Session 2.3:** Active learning strategies
- **Session 2.4:** The roles of the teacher and students in active learning
- **Session 2.5:** Experiential learning and inclusion of indigenous knowledge

## Session 2.1: Quality teachers and their professional attributes

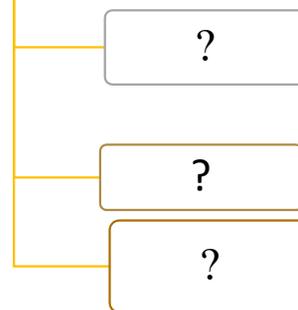
### Session Objectives

- After completing this session, trainees will be able to:
  - *Understand the characteristics of quality teachers*
  - *Identify the major professional attributes or knowledge areas of quality teachers*
  - *Apply a variety of content and pedagogical knowledge in their teaching.*
  - *Apply technological pedagogical content knowledge in their teaching lessons.*

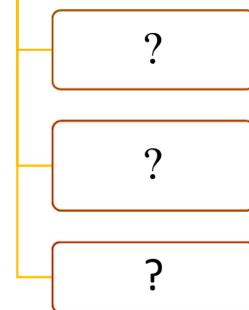
### Activity 1

- Let trainees do Activity-1 in the module referring to characteristics of an effective teacher.

Characteristics of effective teachers



Ineffective teachers



# Qualities of an Effective Teacher

## • *(a). knowledge of subject matter*

- Knowing the subject well to teach with confidence
- Preparing daily for effective teaching
- Selecting appropriate materials, methods and learning experiences
- Reading extensively around the subject matter

## • *(b). knowledge about human behavior*

- He/she should know how a human being develop and learn
- He/she should be able to reflect on a pupil's performance and make suggestions for improvement
- He/she should be able to identify fast, medium and slow learners
- He/she should find ways of assisting slow learners.

# Qualities of an effective teacher

- ***(c). display of attitudes that foster learning and genuine human relation ship***

- He/she must be friendly
- He/she must be sympathetic
- Treating pupils as human beings(with respect)
- Ability to explain difficulties with patience
- Being firm and impartial
- Show interest in pupils as well as their parents
- He/she must always strive to motivate pupils

- ***(d). Teaching skills***

- He/she must be versatile
- Using a variety of skills
- Ready to adapt to changes
- Focusing on the 3Hs (head, hand & heart)



## Activity 2: Professional Attributes of teachers

- What are the three domains or professional attributes?
- Mention eight standards general education teachers are expected to meet.
- The three Domains:



### The 8 Standards

#### Ⓢ *Professional Knowledge*

- *Know students and how they learn*
- *Know the content and how to teach it (PCK)*

#### Ⓢ *Professional Practice*

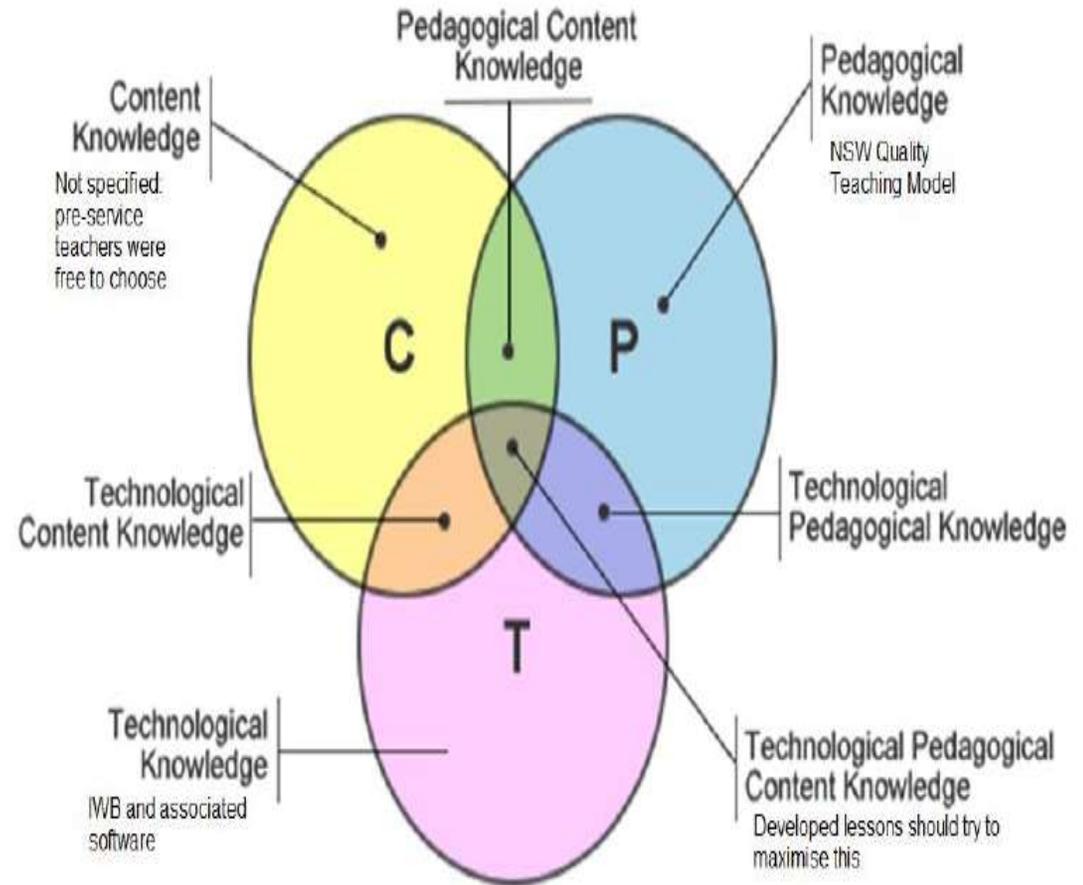
- *Plan for and implement effective teaching and learning*
- *Create and maintain supportive and safe learning environments*
- *Assess, provide feedback and report on student learning*
- *Integrate ICT to support the teaching and learning*

#### Ⓢ *Professional Engagement*

- *Engage in professional learning*
- *Engage professionally with colleagues, parents/care givers and the community*

## Activity 3: Teachers' TPACK

- Teachers' TPACK:
  - Knowledge of the subject matter
  - Pedagogical knowledge
  - Technological knowledge
  - Pedagogical content knowledge
  - Technological pedagogical knowledge
  - Technological content knowledge
- Technological pedagogical content knowledge (TPACK)



## Session 2.2: Teaching, learning, and teacher quality

### Session objectives

- *Define what teaching is properly*
- *Realize the concepts of learning based on different theories*
- *Identify the characteristics and principles of teaching*
- *Make aware of the qualities of ideal teachers that are appreciated by their students and the community.*
- *Demonstrate the major characteristics of ideal teachers in their classroom teaching.*

### Activities

- Activity 1. From trainees' teaching experience, define teaching based on the behaviorist, cognitivist, and constructivist views?
- What about learning?
- Is our current classroom teaching following the behaviourist or constructivist approach?
- When do trainees think they are effectively teaching?

# Teaching...

## Behaviourists

Teaching is focused on modifying or shaping student behaviour through reinforcement and repetition/practice.

Drills, practice exercises and the use of rewards and consequences are often included.

## Cognitivists

Teaching focuses on understanding how learners process, store and retrieve information.

Emphasis is given on mental processes (thinking, memory, knowing, & problem solving), active learning, scaffolding, use of prior knowledge, metacognition, & organised instruction, assessment and feedback.

## Constructivists

Constructivists: Teaching as a process of facilitating active construction of their own understanding and knowledge.

Active learning, reflection, meaningful contexts, knowledge construction, social interaction, etc. is there.

# Learning

## Behaviourists

- Learning as a relatively permanent change in behavior.
- This perspective emphasizes the role of external stimuli rather than internal mental states.
- Conditioning (classical & operant), observational learning are key principles

## Cognitivists

- Cognitive learning theory focuses on the internal mental processes involved in learning rather than observable behaviours.
- It focuses how people understand, process, and store information.

## Constructivists

- Learning by constructivists centers around the idea that learners actively construct their own knowledge and understanding through experiences and interactions with the world.
- (Knowledge is not passively received).
- Knowledge construction , student engagement, problem solving ,learning by doing...

## Session 2.3: Active Learning Strategies

### Session Objectives

- *Compare and contrast the teacher-centered approaches with student-centered (active learning)*
- *Define the term active learning*
- *Identify the different active learning strategies*
- *Analyze the different case scenarios.*
- *Understand the misconceptions of active learning*
- *Use the various active learning strategies*
- *Create favorable conditions for the active involvement of students*
- *Appreciate the active engagement of students and teachers in the active learning process*
- *Conduct microteaching using different active learning strategies.*
- *Identify the roles of students and teachers during the active learning*

### What is active learning?

- Active learning is an instructional approach that actively engages students in the learning process.
- Key characteristics are: student engagement, critical thinking, collaboration, feedback, application of knowledge, reflection, etc.

# Ice breaker

1. What do you understand from the proverbs given?
2. *State the information in your own words. Give examples of it.*
3. *Foresee some of its consequences.*
4. *State its opposite or converse.*

There is a proverb by the Chinese, which says:

*"I hear, I forget;*

*I hear and see, I remember a little;*

*What I hear, see, and ask questions about or discuss with  
someone else, I begin to understand;*

*What I hear, see, discuss and do, I acquire knowledge & skill;*

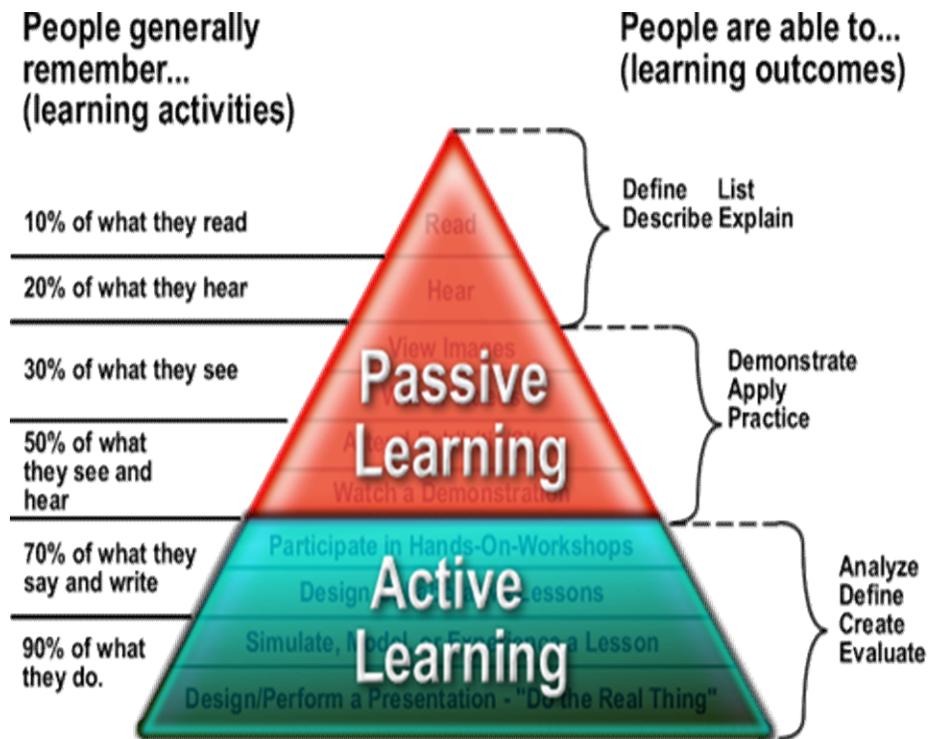
*What I teach to another, I master."*

## Activity 2

- 1. What makes teacher-centered teaching different from the learner-centered approach?
- 2. What is active learning? What makes learning “*active*”? How do teachers prepare students active from the start? Why is it necessary to make learning active?
- 3. How do they help students acquire knowledge, skills, and attitudes... actively? And how do they make learning unforgivable?
- 4. When do you think students are actively engaged in their learning? Just try to show trainees the following figure and try them to argue in favor or against the figure based on their prior experience.

## Brainstorming Questions

1. When do you think are students actively engaged in their learning?
2. How much do they acquire the knowledge and skills when they engage in reading only, hearing only, hearing and looking, saying and writing, and doing it practically?
3. How can you relate the issues of this figure with your instructional media usage? What do you understand in general from the picture?



## *Activity 3 Case based scenarios*

1. What are some of the differences between the two lessons described in the table below?

### Mr. Shaw's lesson

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Mr. Hammond's lesson

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

2. Which lesson do you think is more powerful? Why?
3. What are the strong and weak sides of Mr. Shaw and Mr. Hammond?
4. What type of teaching methods were the two teachers employing?
5. What is inquiry-based learning?
6. Why inquiry-based learning needed?

## Activity 4: Ask the trainees to list ALMs they know



## Activity 5: Guide then active learning strategies and how they work

### Group 1

Jigsaw  
discussion  
Brainstorming  
Inquiry-based  
learning  
Classification  
Demonstration  
Storytelling  
Cooperative  
learning

### Group 2

Hot seating  
Balloon gaming  
Future wheel  
method  
Mind mapping  
Crossover  
grouping  
Problem-solving

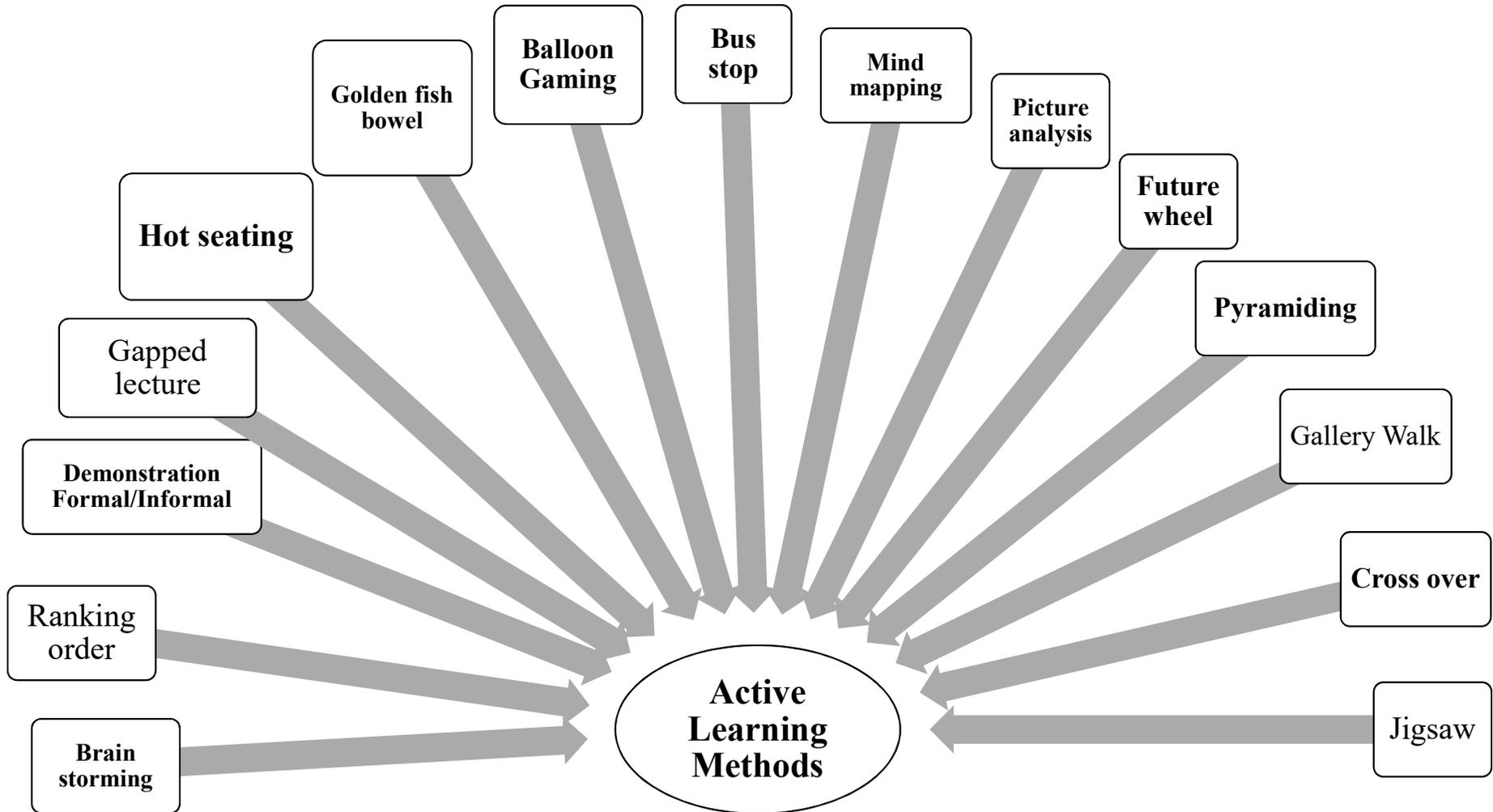
### Group 3

Discovery  
learning  
Spider diagrams  
Diamond  
ranking  
Debate  
Gapped lecture  
Field visit  
Flipped  
classroom

### Group 4

Gallery walk  
Action research  
Matching  
exercise  
Picture analysis  
Project method  
Goldfish bowl

# Some active learning strategies



<ul style="list-style-type: none"> <li>○ Action research</li> <li>○ Active listening</li> <li>○ Balloon gaming</li> <li>○ Brainstorming</li> <li>○ Bus stop</li> <li>○ Buzz group</li> <li>○ CAF (Consider All Factors)</li> <li>○ Case studies</li> <li>○ Competitions</li> <li>○ Comprehension activities</li> <li>○ Cooperative learning</li> <li>○ Creative writing</li> <li>○ Crossover groups</li> <li>○ Debate</li> <li>○ Demonstration (formal/informal)</li> <li>○ Drama</li> <li>○ Drawing pictures, maps, graphs</li> <li>○ Discovery learning</li> <li>○ Evaluation of lesson/programme</li> <li>○ Experiment</li> <li>○ Fieldwork</li> <li>○ Flashcards</li> <li>○ Future Wheel (also called consequence wheel)</li> <li>○ Games</li> </ul>	<ul style="list-style-type: none"> <li>○ Gallery walk</li> <li>○ Gapped lecture</li> <li>○ Goldfish bowl</li> <li>○ Hot seating</li> <li>○ Ice breaker/ starter activity/ warm-up</li> <li>○ Independent work</li> <li>○ Interviews</li> <li>○ Investigation</li> <li>○ ICT use</li> <li>○ Inquiry method</li> <li>○ Jigsaw groups</li> <li>○ Making models and resources</li> <li>○ Mastery learning – ‘practice makes perfect’</li> <li>○ Matching exercises</li> <li>○ Microteaching</li> <li>○ Mind map (sometimes called concept map)</li> <li>○ Newspaper or radio reporting</li> <li>○ Pair discussion</li> <li>○ Peer assessment</li> <li>○ Picture analysis</li> <li>○ Portfolio development</li> <li>○ Presentation</li> <li>○ Problem-solving</li> <li>○ Project work</li> <li>○ Pyramiding</li> <li>○ Questioning</li> <li>○ Question and answer</li> </ul>	<ul style="list-style-type: none"> <li>○ Quiz</li> <li>○ Ranking tasks (including diamond ranking)</li> <li>○ Reflection</li> <li>○ Research</li> <li>○ Roleplay</li> <li>○ Scenario analysis</li> <li>○ Self-assessment</li> <li>○ Small group discussion</li> <li>○ Spider diagram (similar to mind map, can be used to record results of brainstorming)</li> <li>○ Stimulus material</li> <li>○ Storytelling</li> <li>○ Target setting</li> <li>○ Thought bubbles</li> <li>○ Visits, etc.</li> </ul>
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# Day Three

## Session 3.4: Experiential learning & inclusion of indigenous knowledge

### Session Objectives

- *Define experiential learning and its cycles.*
- *Explore the experiential knowledge and indigenous knowledge practices of trainees.*
- *Relate the daily lessons with the prior experiences or experiential learning of students.*
- *Synthesize the indigenous knowledge with the knowledge of books*
- *Apply inclusion of indigenous knowledge in their classroom teaching*
- *Link the indigenous knowledge with 21st-century skills.*

### Activities

#### • Activity 1:

1. Are students coming to school without knowledge and skills gained through life experience?
2. How the indigenous people are controlling soil erosion, use medicines, construct buildings prepare food items and alcohol, etc,?
3. How do the local communities cultivate crops, rear, and adapt different animals?
4. What local medicines are you familiar with in your areas and for what purpose are they used?
5. What can the local community do to save a person heated by thunder?
6. What does the state of arbitration look like in our local communities?

## Activity 2

1. Mention various indigenous knowledge areas which encompass customs, traditions, traditional ecological knowledge, spiritual beliefs, and local language in your areas and contexts that are related to your subject matter and share with your colleagues how it works.
2. How does the integration of indigenous knowledge in our curriculum look like?

1. What is your opinion on integrating and applying indigenous knowledge with 21st-century skills?
2. What are the challenges of applying indigenous knowledge in classroom teaching?

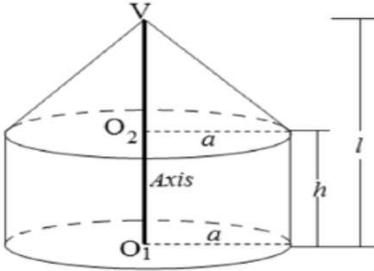
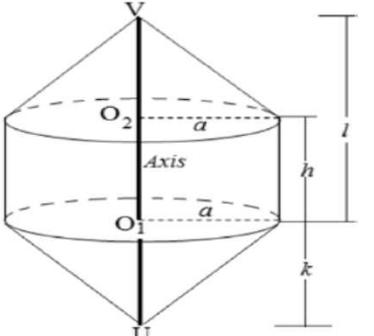
# Inclusion of Indigenous knowledge & experiential learning ....

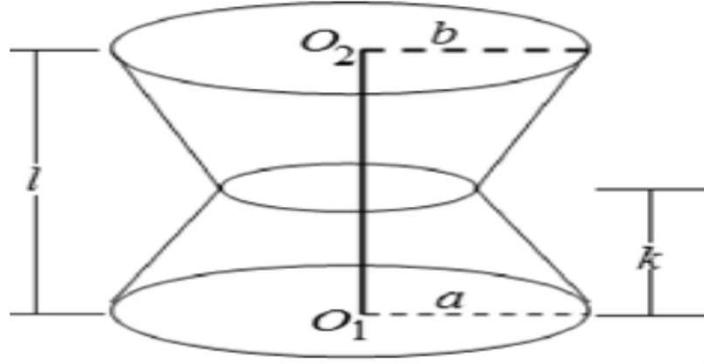
## Activity 3:

✚ Discuss on the following activities by analysing the pictures associated with it.

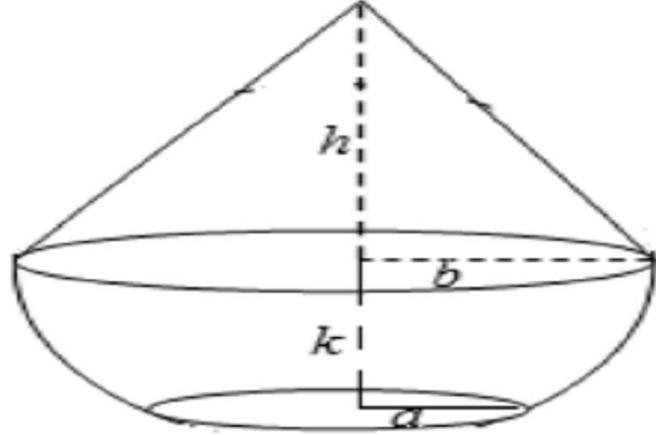
➡ Are students coming to school without prior experience of indigenous knowledge?

➡ Why the mathematics teachers are teaching students about a Circle and circle formula (to find circumference, diameter, radius, arc, etc)?

Local material	Corresponding Global picture	Measurement
		<p>Volume and surface area of cone and cylinder</p>
		<p>Volume and surface areas of cones and cylinders from a realistic perspective</p>



*Volume and surface areas of frustums.*



*Volume and surface areas of cone and sphere*



Tadesse Melesse (PhD)

# Experiential learning

- It is the process of learning through experience..
- It is an educational method that focuses on skills, knowledge, and experience gained outside of the traditional classroom settings...this includes internships, field trips, visiting museums, cultural institutions, practicum (Teaching experience), etc...
- Lessons learned from past experiences..
- Learning through reflection on doing..
- Allowing students to apply their knowledge and skills in practical situations..
- It is a constructivist learning theory defined as “ learning by doing”..
- It encourages peoples to do things and reflect on what happened..

## Cont'd

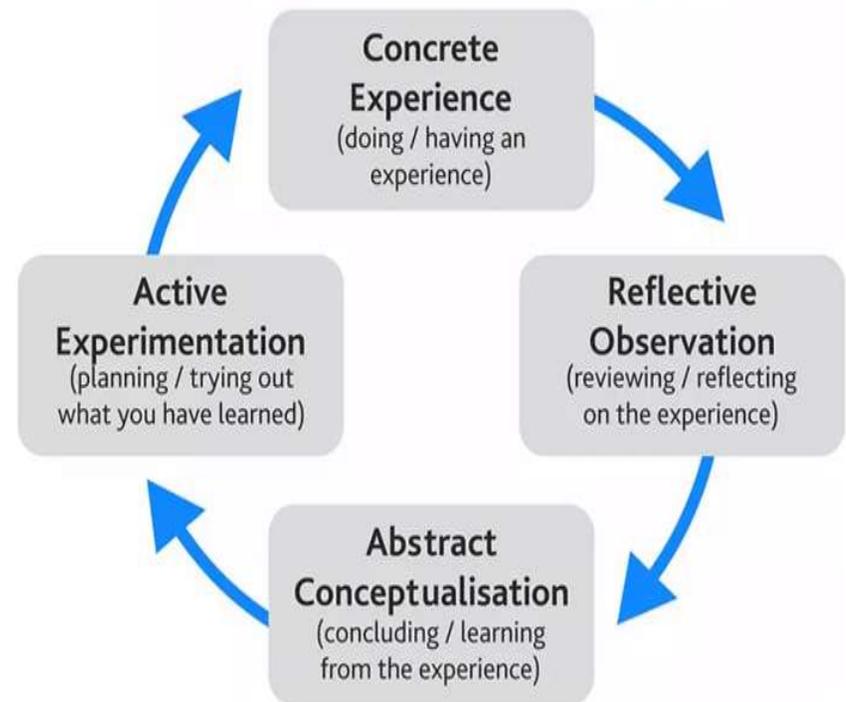
- It aims to develop understanding, developing skills; promote personal growth by connecting theory with real-world practice..
- Experience is taken as a source of learning and development..
- Students to practice what they learn almost immediately..
- Hands-on activities...
- Four major characteristics that need to be applied for a type of learning to qualify as experiential learning;
  1. concrete experience stage;
  2. reflective observation stage;
  3. abstract concept stage;
  4. active experimentation stage.
- David Kolb is best known for his work on this theory. He published this model in 1984, getting his influence from other great theorists including John Dewey, Kurt Lewin, and Jean Piaget.

## Activity 4

### Case study

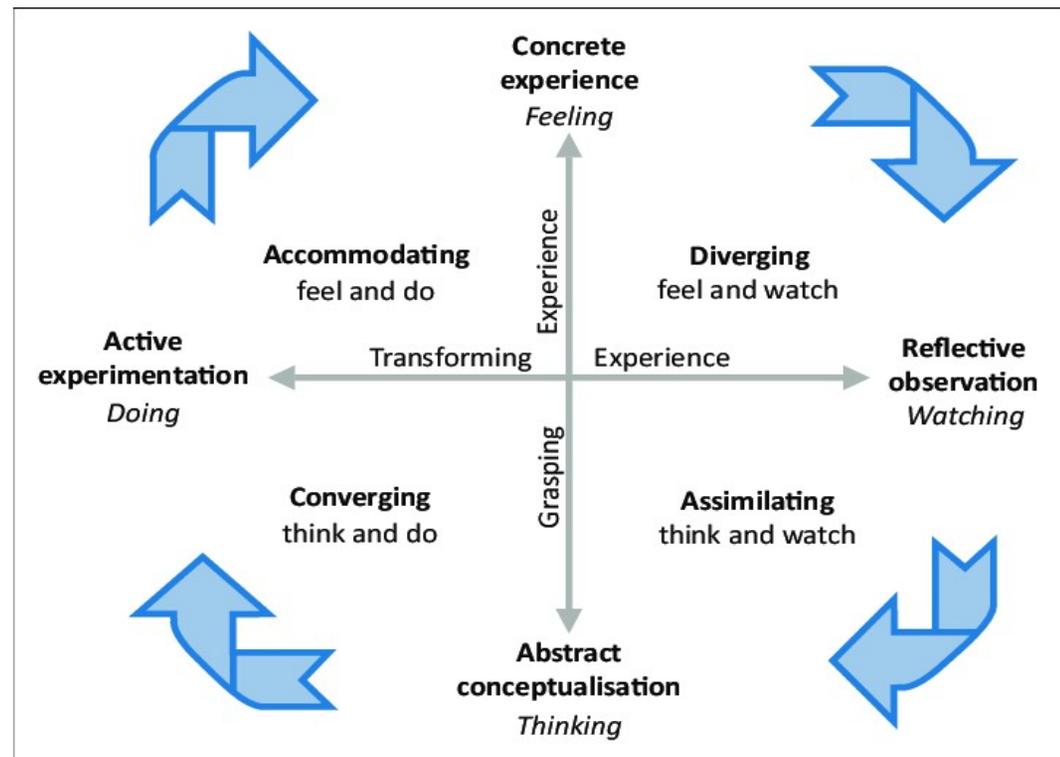
- Let's say, those people in Bahir Dar who are living along the borders of Lake Tana are repeatedly suffering from malaria. So, based on the four steps of Kolb's Cycle of experiential learning, how can these people get relieved from this problem? What can you do step by step for this problem?

### The Experiential Learning Cycle



# Experiential learning...

- The experiential learning programme aims to promote professional skills and knowledge through hands-on experience, building confidence and ability to work in project mode and acquire enterprise management capabilities.
- There are four major characteristics of experiential learning theory: *concrete experience, reflective observation, abstract concepts, and active experimentation.*



## Unit 3: Differentiated Instruction (5 hrs.)

- **Unit Objectives**

- *After completing this unit, trainees will be able to:*
  - *Understand the presence of diverse learners in the classrooms,*
  - *Recognize and respect the learners' diversity in the classrooms,*
  - *Address learners' diverse needs, interests, readiness, learning styles, and multiple intelligences by applying differentiated instruction strategies in their classroom teaching.*
  - *Create gender responsive and inclusive classroom environment while teaching.*
  - *Use various instructional media to address learners' diverse learning styles and multiple intelligences accordingly.*
  - *Appreciate the presence of diversity in the classrooms for knowledge, skill, and value sharing.*
  - *Identify the different classroom management techniques*
  - *Create a conducive classroom environment for all students' learning.*
  - *Identify the root causes of student misbehaviors.*
  - *Apply the diverse techniques of managing large class-size in their teaching*
  - *Use the preventive and curative techniques of handling student misbehaviors.*

## Key Topics

- **Session 3.1:** Recognizing learners' diversity in classrooms and accommodating their diverse learning
- **Session 3.2:** Creating gender responsive and inclusive classroom environment
- **Session 3.3:** Instructional media usage versus students' learning styles and multiple intelligences
- **Session 3.4.** Creating conducive classroom management
- **Session 3.5:** Managing large class-size and techniques of classroom management

## Session 3.1: Learners' diversity in classrooms and accommodating their learning

### Session Objectives

- *After completing this session, trainees will be able to:*
  - *List exhaustively the major differences of students in the classrooms*
  - *Apply various differentiated instruction strategies in their classroom teaching to accommodate students' learning diversity.*

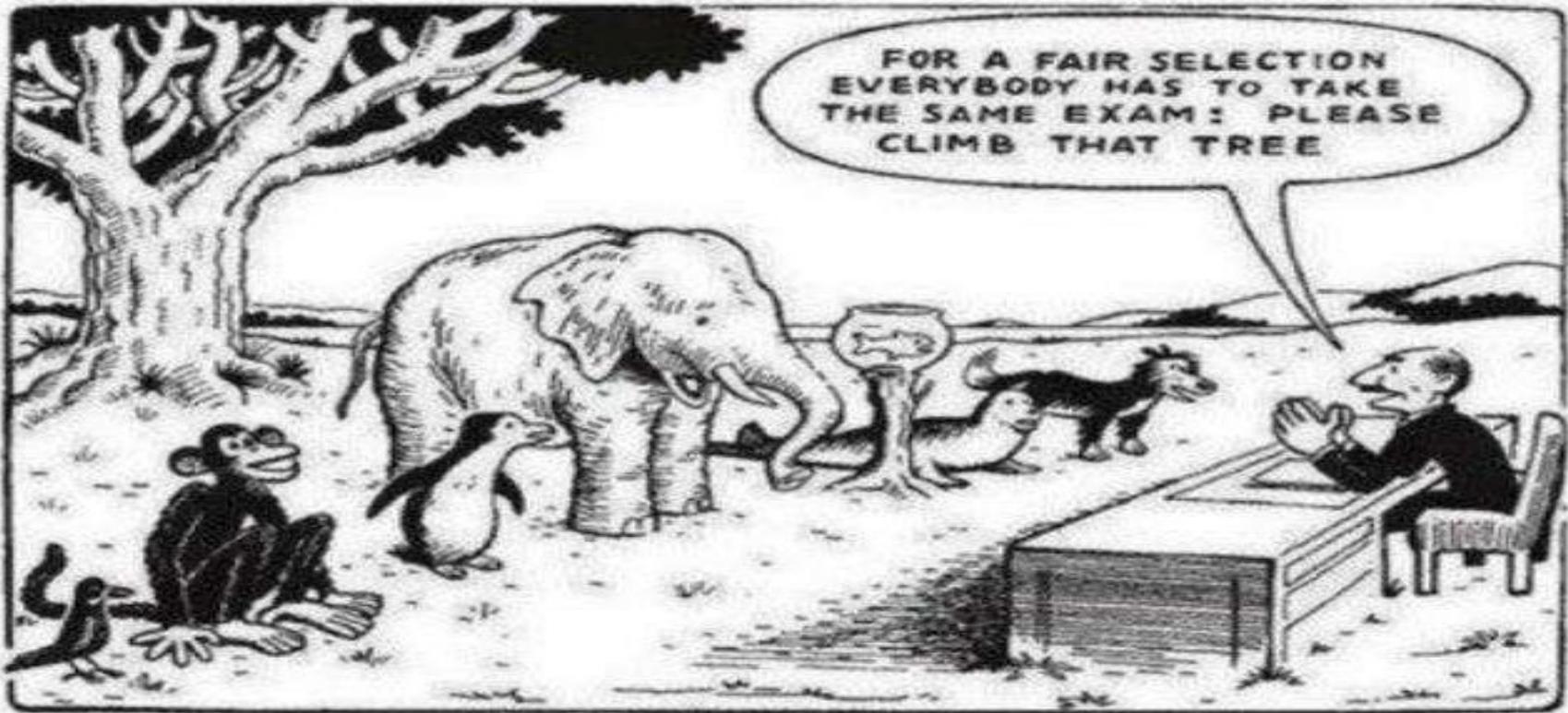
### Activities

- **Activity 1:**
  1. Are all students in the classroom the same? If not what are their differences?
  2. If all students in the classroom are diverse, what were the methods of teaching you have employed to address the diverse needs and interests of students?

## Activity 2

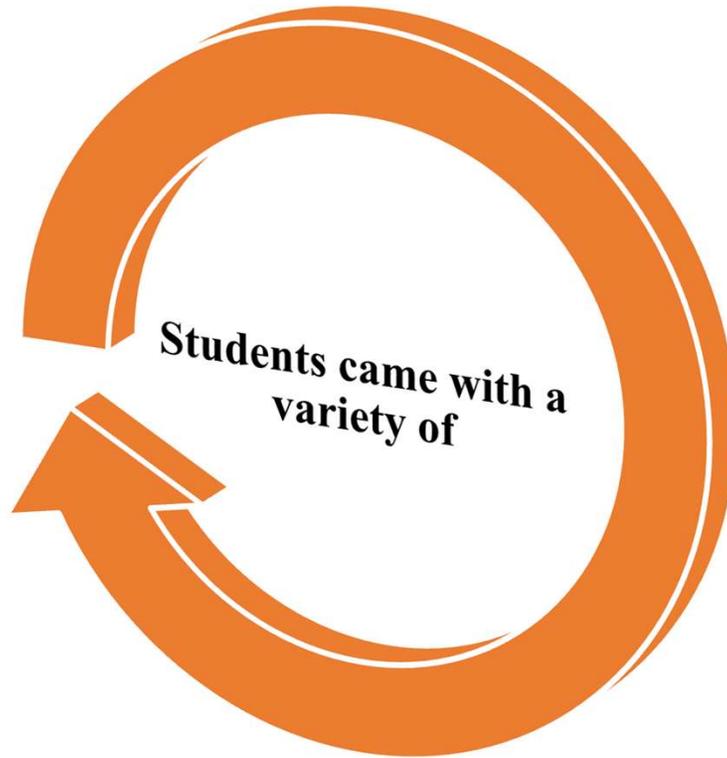
1. Is a one-size-fits-all approach or differentiating instruction according to students' learning diversity important in the current classroom teaching? Why?
2. What is differentiated instruction (DI) for you? What are the components and strategies of DI?
3. What makes DI different from universal design for learning (UDL)?
4. Is it possible to differentiate contents/ lessons, methods of teaching, assessment strategies, and learning environment in the same classroom teaching? Why?
5. How is a homogenous assessment practice possible for heterogeneous class students in our context?
6. What type of strategies can you apply content, method, assessment, and learning environment differentiations?

**Activity 3:** Is our classroom teaching different from this?



## **Key Ideas:**

**No two students are exactly alike!!!**



- **Readiness levels**
- **Educational experiences**
- **Interests**
- **Learning styles**
- **Intelligences**
- **Personal experience**
- **Learning profiles**

## UDL vs DI

### Differences and interconnections of UDL and DI

**UDL** focuses on creating inclusive learning environments from the start, incorporating flexible materials and methods that benefit all students. UDL through three components: Representation (the what of learning), Action & Expression (the how of learning), and Engagement (the why of learning).

**DI** is a systematic approach to planning curriculum and instruction for academically diverse learners that focuses on modifying (1) content, (2) process, (3) product, and (4) learning environments in response to students' needs.

DI modifies teaching to meet individual student needs, adjusting content, process, product, and learning environment.



## UDL

- UDL is an overarching approach focused on the inclusive design of the whole learning environment at the onset.
- It aims to ensure all students have full access to everything in the classroom, regardless of their needs and abilities.
- UDL provides multiple means of engagement, representation, action & expression to all learners from the start.
- Students are encouraged to **self-differentiate** and choose the best path for themselves.

## DI

- Differentiation is a strategy aimed at addressing/adjusting each student's individual levels of readiness, interest, and learning profiles.
- The teacher modifies content and processes to address the needs of each student and directs students to specific activities
- Differentiation is done **after the data is collated and trends are noticed.**
- The goal is to provide a responsive and optimal learning environment for individuals/groups of learners.
- DI is **doing what's fair for students.**

## UDL

- **Proactive-** anticipate the existence of learner variability and plans for it before a lesson begins.
- UDL proactively evaluates the classroom instruction and environment and provides access to the content on the front end;
- Evaluates environment, classroom, culture
- Intentional prior planning
- Focuses on variability

## DI

- **Reactive-**
- DI reactively evaluates individual students and modifies on the back end.
- Evaluates the student
- Cause/effect based planning & intervention
- Focuses on individual disability

## UDL

### “Fix the lesson”

Plan the lesson in *anticipation* to student needs

Build the tools and methods of differentiation right into the lesson

Occurs *prior* to instruction  
(Proactive)

Meet individual needs

Give all students access to the same high quality content

Create highly supported, engaging learning environment

Provide multiple ways to develop knowledge and skills

Emphasize critical thinking and strategic learning

Adjust student progress during learning and adjust as needed

Occurs during “independent” practice

## DI

### “Fix the student”

Modification *in response to* learner needs and preferences as they are identified *during* and *after* instruction

Occurs post-instruction

(Reactive)

## Session 3. 2: Creating a gender-responsive and inclusive classroom environment

### Session Objectives

- *Identify where there are specific and impairment-related differences in classroom teaching.*
- *Understand the concept of inclusive and gender-responsive pedagogy.*
- *Create a conducive learning environment for both females and males and students with special needs.*
- *Apply gender-responsive and inclusive classroom teaching for all students in the classrooms.*

### Activities

- **Activity 1**
  1. What is gender? What is gender equity?
  2. Why is gender agenda for schools and the community?
  3. Based on your prior experience, is there gender stereotyping in your classroom teaching?
  4. In your schools, what major challenges do you identify in female students' learning compared to male students?
  5. Is your classroom teaching-learning approach for male and female students the same? Why?
  6. What is gender-responsive pedagogy?
- **Do Activity 2 in a similar manner**

## Activity 2

1. In your schools, are there students with special needs (i.e., visually impaired, deaf, blind, mentally retarded, emotionally disturbed, and intelligent students)? If No, why so? If Yes, How are you supporting them?
2. Are there supporting learning materials (e.g., braille for the blind, hearing devices, sign languages, and also trained teachers with inclusive and special needs education)?
3. How can you address the problems of students with special needs in the classroom teaching while teaching them with other 'normal' students in the same classroom? What treatment and support mechanisms are provided for them in the classrooms and outside the classroom?
4. Can you share the major strategies you apply to accommodate these differences? What are also the major challenges you faced? What solutions did you use for the challenges you faced?

## Session 3.3: Learning styles and multiple intelligences of learners and Instructional media usage

### Session Objectives

- *Identify the diverse learning styles and multiple intelligences of individual students.*
- *Treat students in classrooms to use and develop their unique intelligence, talents, and learning styles.*
- *Apply the different instructional media for their lessons by considering the different learning styles and multiple intelligences of students in their classroom teaching.*

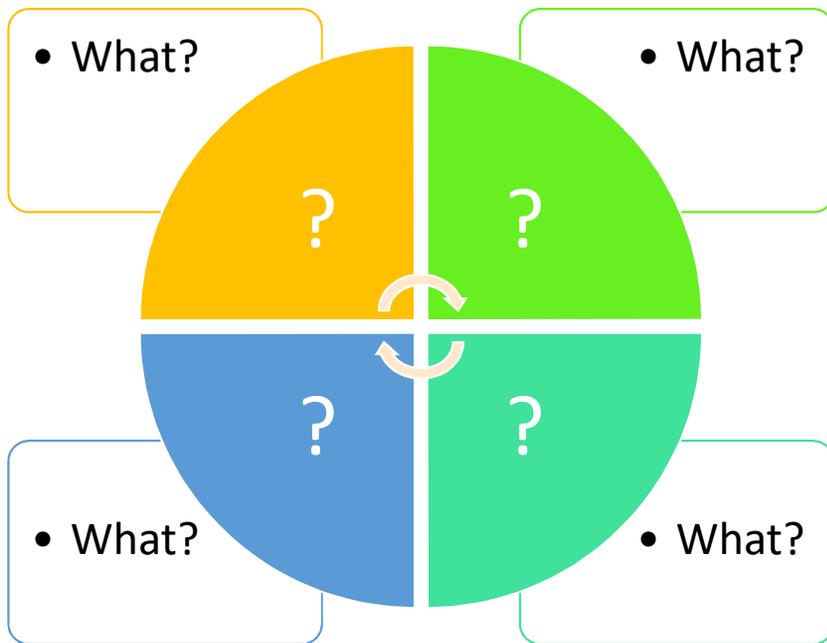
### Activities

#### Activity 1:

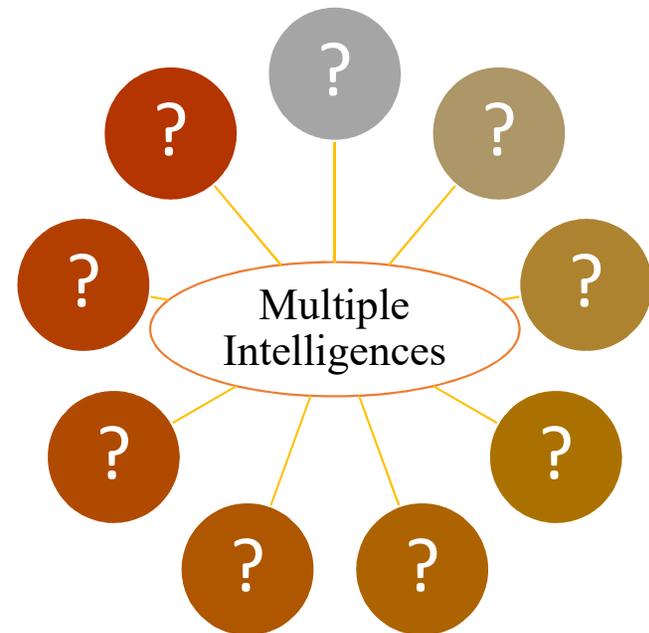
1. What types of students are learning in the classrooms? Or, are they all the same?
2. How can you characterize the behaviors of students during your classroom teaching?
3. In your lesson teaching, are you using the same instructional media for all students or different? Do all students have the same learning styles?
4. In your experience, what are the diverse learning styles individual students are applying in their classroom teaching? What about the students' multiple intelligences?

# Learning styles & Multiple intelligences....

## *Learning Styles*

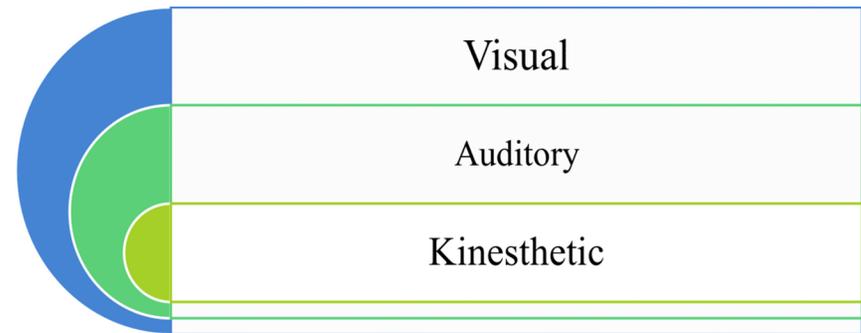


## *Multiple intelligences*

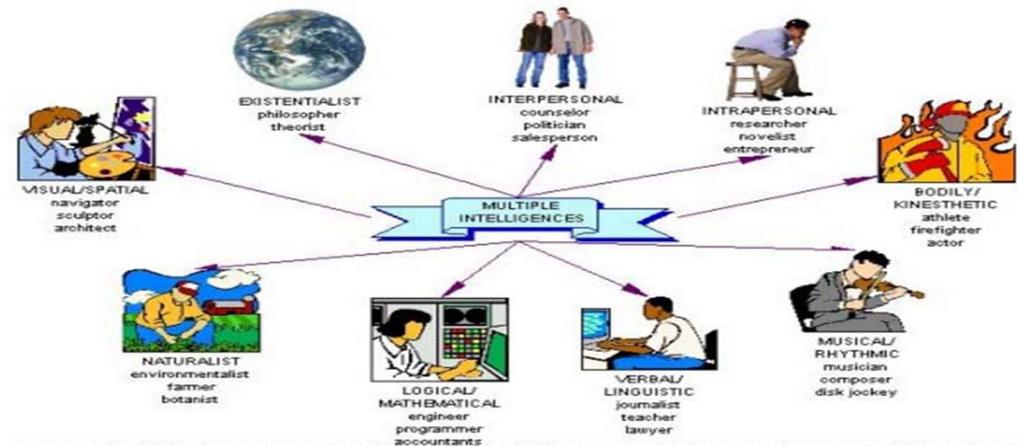


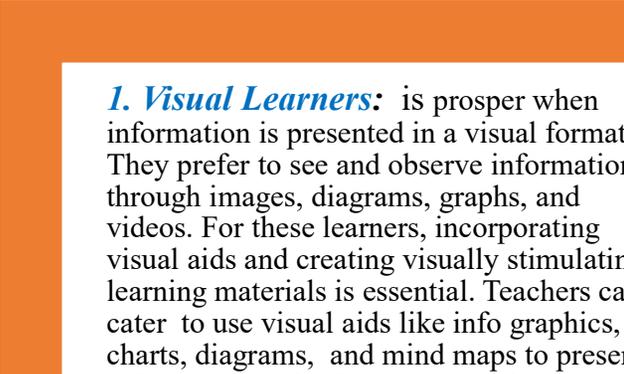
1. How can you treat students in classrooms to address their unique intelligence, talents, and learning styles?
2. What type of instructional media are you frequently applying in teaching your subjects? While using different instructional media, are you considering the learning styles and multiple intelligences of students?
3. What type of instructional media do you think is appropriate for visual, auditory, and kinesthetic /tactile learners?

## Learning Styles

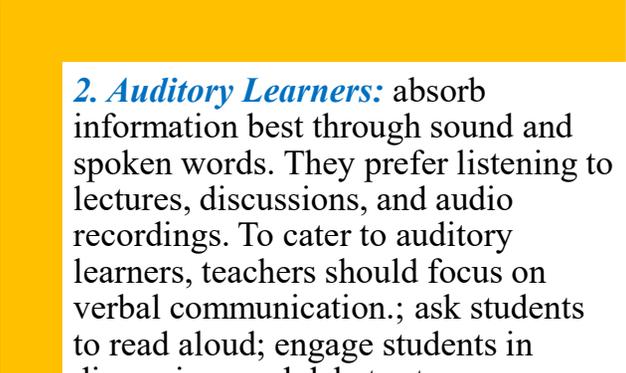


## • Multiple intelligences

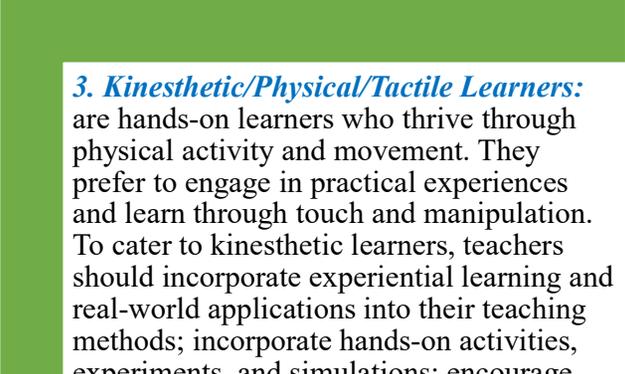




**1. Visual Learners:** prosper when information is presented in a visual format. They prefer to see and observe information through images, diagrams, graphs, and videos. For these learners, incorporating visual aids and creating visually stimulating learning materials is essential. Teachers can cater to use visual aids like info graphics, charts, diagrams, and mind maps to present information and enhance comprehension and retention; provide opportunities to create their own visual representations of concepts; incorporate videos, animations, and slideshows to reinforce concepts; encourage visual note-taking and the use of colour coding to organize information; and provide written instructions and handouts to supplement verbal explanations.



**2. Auditory Learners:** absorb information best through sound and spoken words. They prefer listening to lectures, discussions, and audio recordings. To cater to auditory learners, teachers should focus on verbal communication.; ask students to read aloud; engage students in discussions and debates to encourage active listening; use lectures, podcasts, and audio recordings to deliver information; encourage students to explain concepts verbally or participate in group discussions; and provide opportunities for students to present their ideas and findings orally.



**3. Kinesthetic/Physical/Tactile Learners:** are hands-on learners who thrive through physical activity and movement. They prefer to engage in practical experiences and learn through touch and manipulation. To cater to kinesthetic learners, teachers should incorporate experiential learning and real-world applications into their teaching methods; incorporate hands-on activities, experiments, and simulations; encourage students to participate in role-plays, skits, or physical demonstrations; use manipulatives, models, or interactive technology to reinforce concepts; provide opportunities for students to engage in practical applications of knowledge and provide opportunities for movement during lessons, such as incorporating gestures or allowing students to work in groups

## Session 3.4: Conducive classroom management and managing large class size

### *Session Objectives*

- *Identify the conducive classroom environment setting for students' learning*
- *Analyze the pros and cons of the different sitting arrangements*
- *Realizing the techniques of managing large class size in their teaching*
- *Appreciating large class size as an opportunity for experience sharing than as a challenge.*
- *Identify various classroom management approaches and how they work*
- *Recognize the different classroom student misbehaviors and causes of the misbehavior*
- *Devise preventive and curative mechanisms or techniques for student classroom misbehavior.*

### ACTIVITIES

#### • Activity 1

1. What does the classroom setting refers to?
2. What types of sitting arrangements do you know? Mention them with their advantages and limitations. Which type of sitting arrangement is mostly applied in the classrooms?
3. Is a flexible group arrangement or a fixed group arrangement advantageous? Why?
4. Is there large class size in your schools? How large is it?
5. Is large class size an opportunity or a challenge?
6. What techniques can you apply to manage large class size in classroom teaching?

## Activity 2.

- 1. Mention what types of classroom management approaches they are applying in their classroom teaching.
- 2. Compare the strong and weak sides of the following classroom management approaches

<b>Authoritarian approach</b>	<b>Instructional/ Democratic approach</b>	<b>Cookbook approach</b>	<b>Lessiez-faire/ Permissive approach</b>	<b>Intimidation approach</b>
• _____ • _____ • _____ • _____	• _____ • _____ • _____	• _____ • _____ • _____ • _____	• _____ • _____ • _____ • _____	• _____ • _____ • _____ • _____

## Activity 3:

1. What are misbehaviors to you?
2. What is the root causes of the student misbehavior? Try to guide the trainees to discuss the root causes by framing their discussion as teacher related, student related, school leadership related, parent/ community related misbehaviors.
3. How can you tackle or minimize students' classroom misbehaviors?
4. What are *preventive* techniques?
5. What are also *curative* techniques for student classroom misbehavior?

# Classroom Mgt approach

## **Cookbook classroom Mgt approach**

- It is a highly structured and prescriptive method (something involves telling students what they do) where teachers follow (emphasizes) on a set of predefined clear rules and procedures strictly..

## **Intimidation classroom Mgt approach**

- It is like the authoritarian approach..
- It relies on instilling fear or apprehension in students to maintain control and compliance..
- It involves authoritarian tactics such as harsh form of punishment, or threats, force..

# Classroom Mgt approach

## **Democratic classroom Mgt approach**

- High-trust relationship..
- Shared power between teachers and students..
- Respect for students ideas and contributions
- Provide a safe, risk-free place to practice democratic skills..
- Students have right to establish their own rules, take responsibility for their own behaviour..

## **Laissez-faire classroom Mgt approach**

- Is a style where teachers display little behavior to control students and demand little from them..
- Giving students freedom to execute what they feel correct and suitable for them..
- The teacher here does not impose a view over his students..

## *Day Four*

# Unit Four: Assessment and feedback practices for students' learning (3 hrs.)

### *Unit Objectives*

- Understand the concepts of assessment and continuous assessment
- Analyze the purposes of continuous assessment for learning and grading.
- Recognize the various tools of assessment to be used before, during, and after instruction to address learners'
- Apply the different assessment tools to address learners' diverse needs, interests, readiness, learning styles, and multiple intelligences.
- Appreciate the use of continuous assessment for students' learning progress and feedback.
- Recognize the various techniques of providing constructive feedback.

### **Key Sessions**

- Session 4.1: Concepts, purposes and characteristics of assessment
- Session 4.2: Tools of assessment and techniques of providing constructive feedback

## Session 4.1: Concepts, purposes, and characteristics of continuous assessment

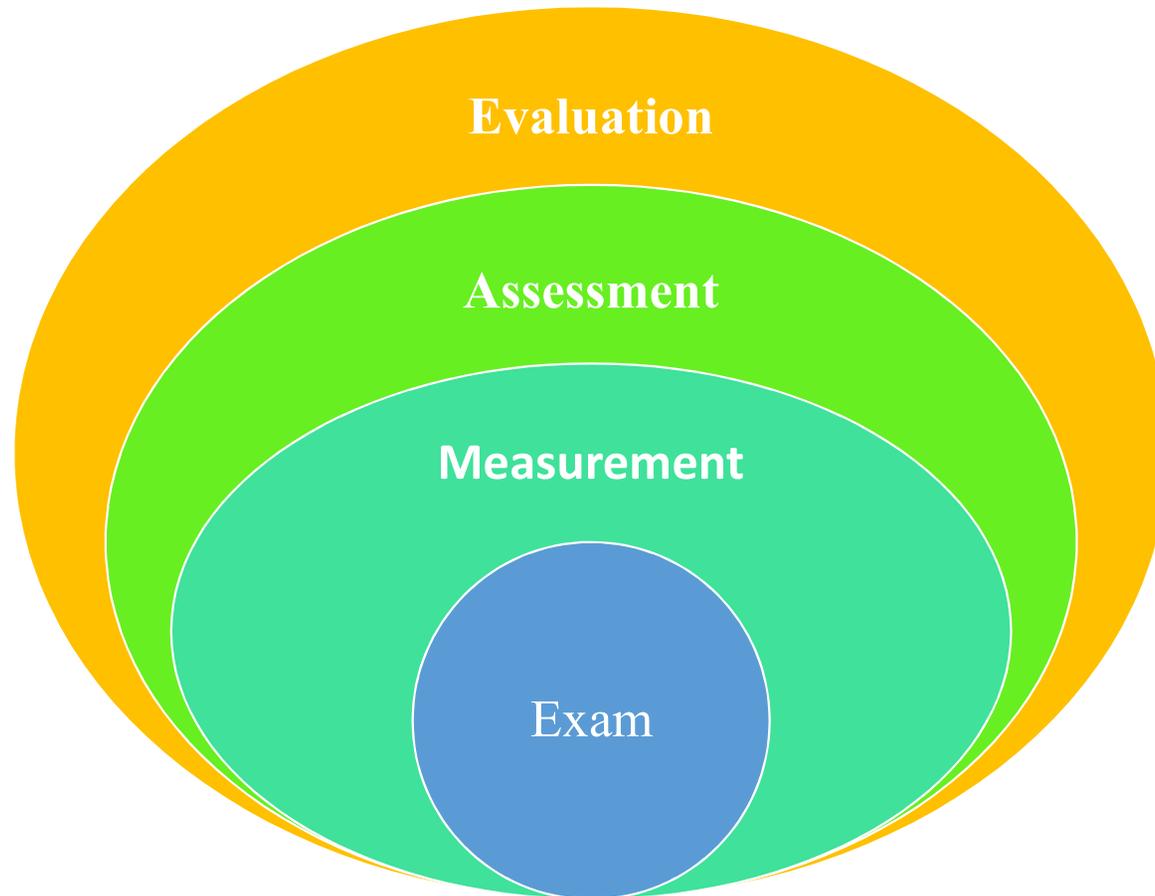
### *Session Objectives*

- *Understand the concepts of assessment and continuous assessment,*
- *Differentiate the concepts of assessment from measurement and evaluation*
- *Analyze the different types of continuous assessment.*
- *Recognize the characteristics of continuous assessment.*
- *Differentiate the purposes of continuous assessment before, during, and after instruction*
- *Apply different assessment techniques before, during and after instruction.*

### **Activity 1**

1. Are students learning what they are supposed to be learning?
2. How can you check whether your students are learning or not? How frequently are you assessing?
3. What is continuous assessment for you? How can you differentiate assessment from measurement and evaluation?
4. When do you think is assessment provided? For what purpose is assessment used?
5. Is assessment part of the teaching-learning process? How?
6. What are you going to assess? How can you assess the knowledge, skills, and attitudes of students? What assessment tools can you apply to measure knowledge, skill, and attitudes?

# What is the difference???



# Key concepts...

**Measurement:** The explicit quantification of the results obtained through testing.

**Assessment:** collecting information to check students' attainment of the required learning outcomes

**Evaluation:** The placing of value or interpretation of a measurement and assessment. It is providing decisions based on assessment results

**Evaluation** = Measurement + Assessment + value judgment

**Evaluation** = Quantitative (measurement) + qualitative description (non-measurement) + value judgments.

# Activity

1.

# Assessment

- **What is assessment?**
  - The word ‘assess’ comes from the Latin verb ‘**assidere**’ meaning ‘to sit with’.
  - In assessment one is supposed to sit with the learner.
  - This implies it is something we do ‘**with**’ and ‘**for**’ students.
- **What is continuous assessment?**
  - ongoing process of gathering and interpreting information about student learning.
  - a means for collecting information to check students’ attainment of the required objectives.
  - process of gathering pupils’ responses to an educational task.
  - It enables one self **adjust** to learning

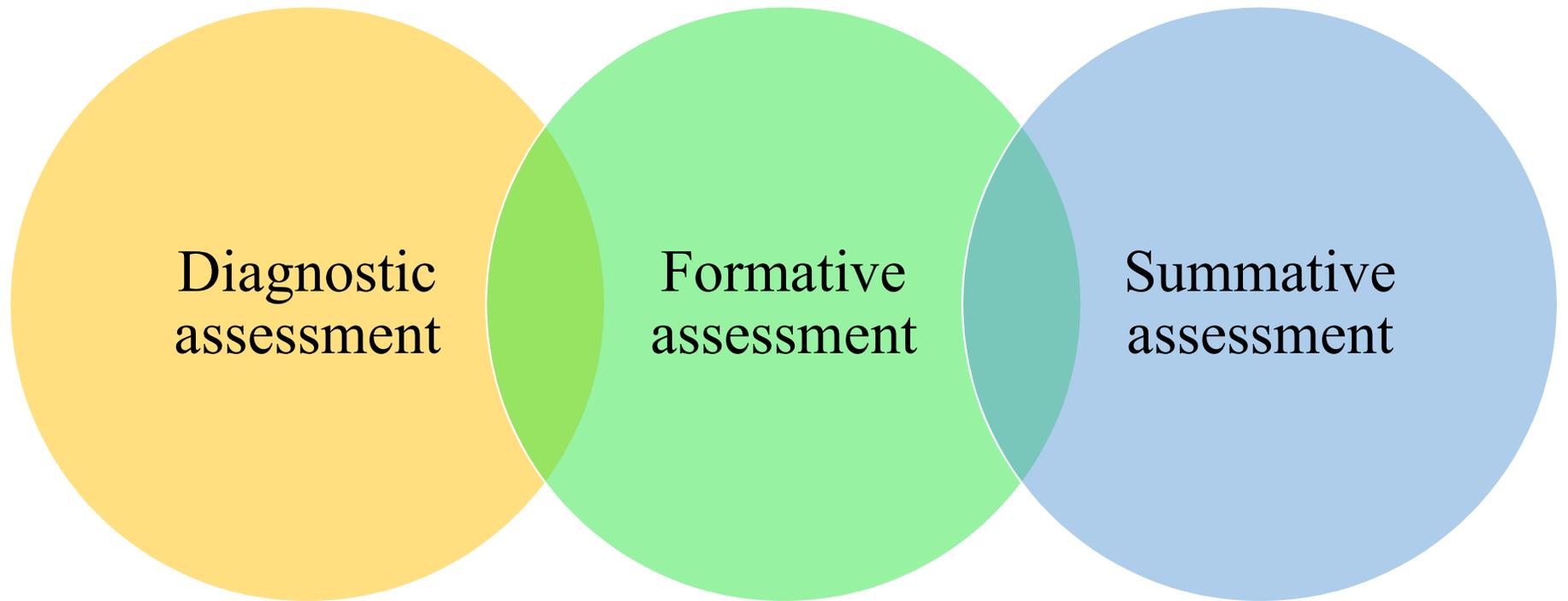
# Activity

1. Why are we going to assess?
2. How can we assess students **knowledge**, **skills** and **attitudes**?
3. Which assessments are useful and which are not?

## Why we assess students?

- Incentive to learn
- Feedback to student
- To inform instruction
- Modification of learning activities
- Selection of students
- To decide success or failure
- Feedback to teacher
- Gather evidence of student learning
- To motivate students
- Increase student achievement
- To assign grades/ranks.

# Types of Assessment



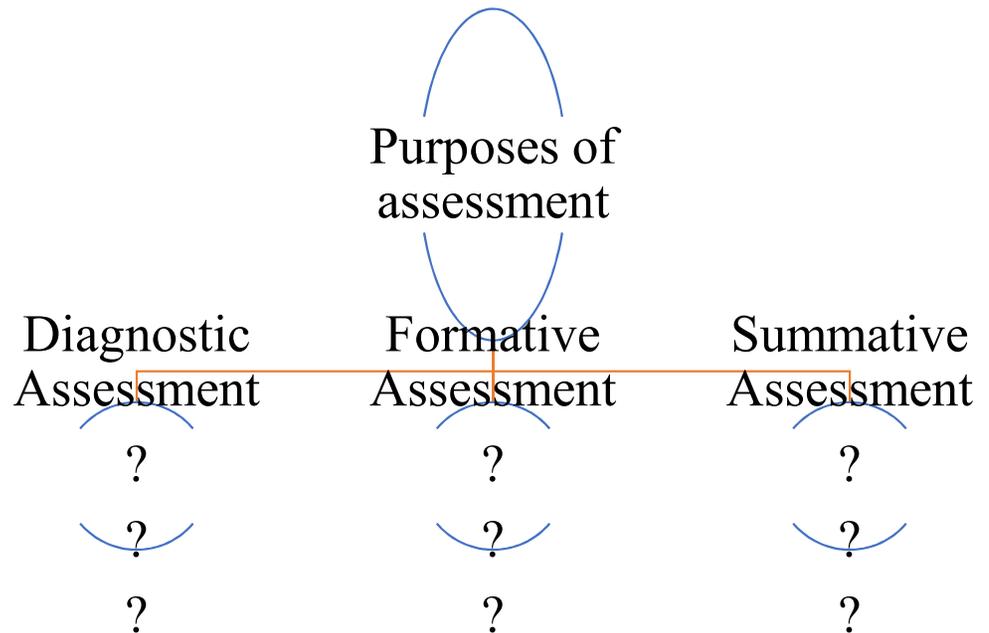
# Session 4.2: Tools of assessment and techniques of providing constructive feedback

## Session Objectives

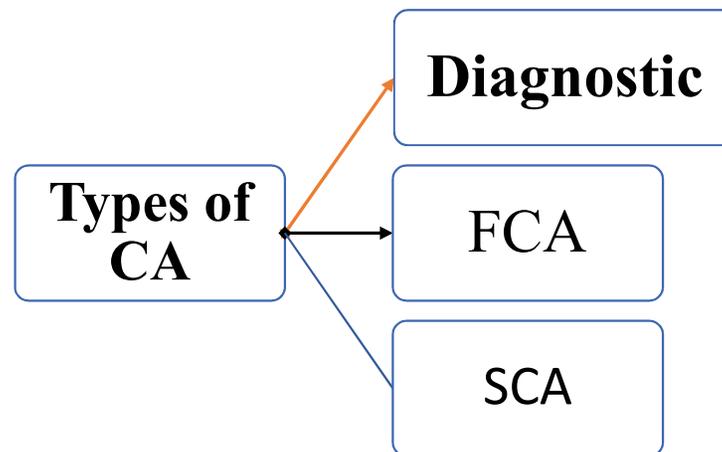
## Activities

- *List the various assessment tools to be employed before, during, and after the instruction*
- *Understand the purposes of feedback*
- *Appreciate the importance of feedback to improve trainees' learning and learning progress.*
- *Apply different feedback techniques before, during, and after instruction.*

- Activity 1: Purposes of Assessment



***It is not the assessments themselves that are Diagnostic, formative or summative but how they are used.***

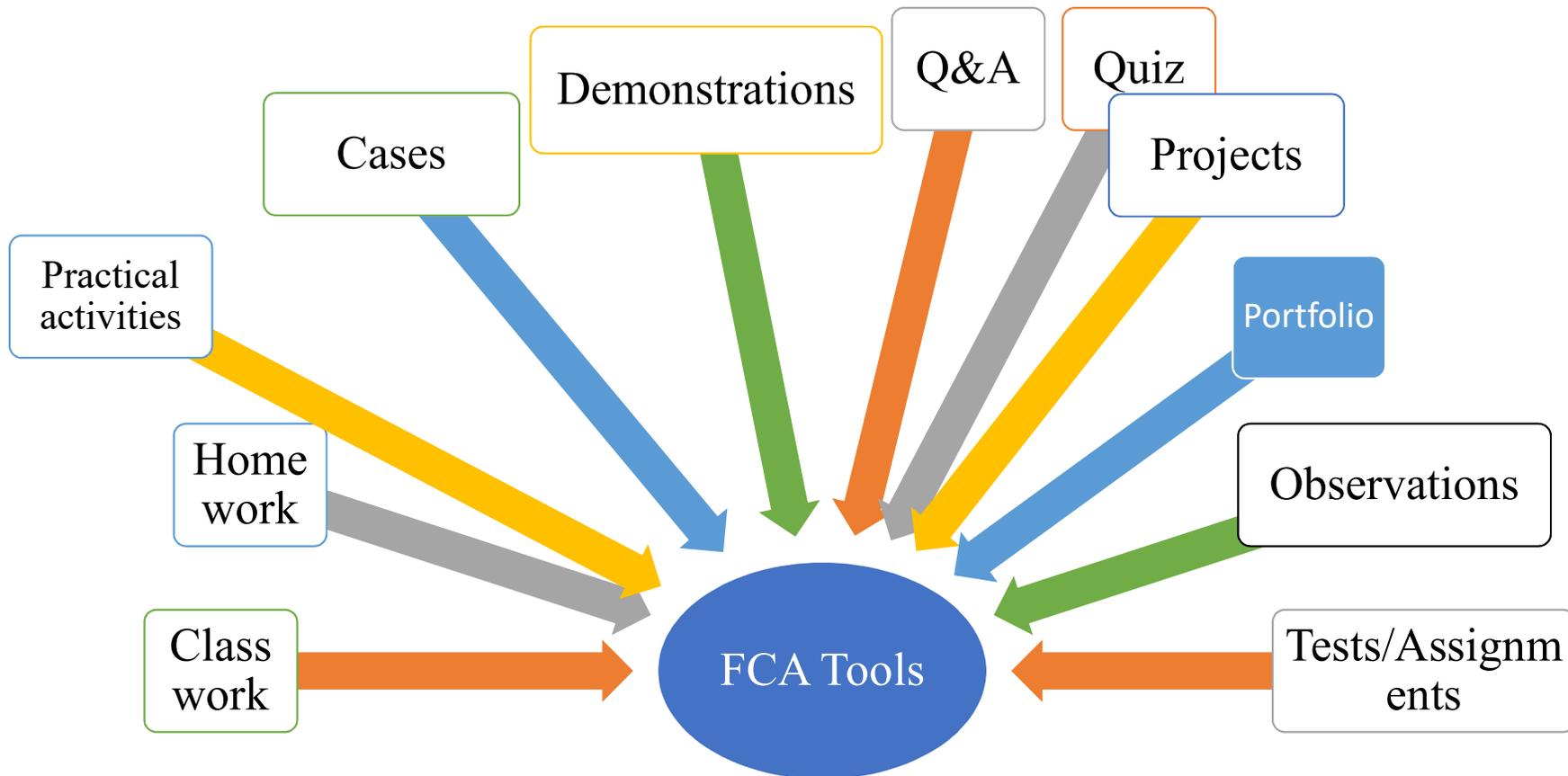


# Formative Continuous Assessment (Assessment **for** learning)

- ➡ It is to assist the learning process by providing feedback
- ➡ It is continuously gathering evidence about learning.
- ➡ It has the greatest impact on student learning.
- ➡ It is diagnostic and remedial
- ➡ It is **non-graded**
- ➡ Can be done formally or informally for feedback.
- ➡ It is process oriented (**cultivating the learner**)
- ➡ Carried out during instruction
- ➡ It is part of the teaching method.

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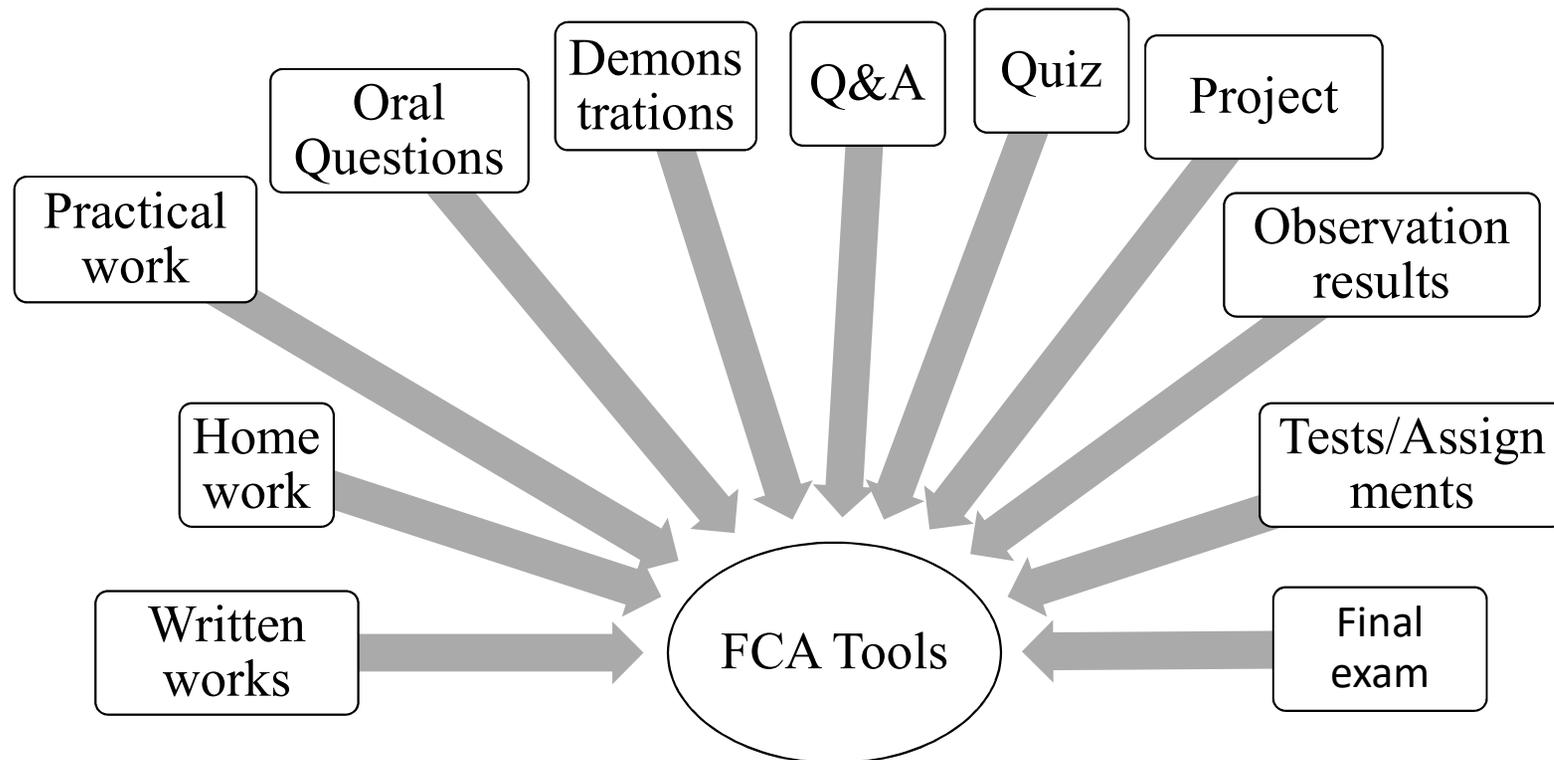
# Tools of FCA



# Summative Continuous Assessment: (Assessment of Learning)

- ➡ at the end of a unit/term/semester.
- ➡ the purpose is to gather evidence of student achievement after instruction.
- ➡ used primarily to make decisions for grading or certification purpose.
- ➡ to judge the learner's overall performance.
- ➡ for checking mastery
- ➡ to pass or failure
- ➡ to determine what has been learned from the lesson,
- ➡ to summarize student progress.

# Tools of SCA (But for grading purpose)



## Assessment for Learning

## Assessment of Learning

During learning	After learning (at the end)
to provide information to improve achievement	Used to certify student competence
Used to identify and respond to student needs	Used to rank and sort students
<b>Purpose:</b> improve learning	<b>Purpose:</b> measure or audit attainment
<b>Focused</b> on the learning process.	<b>Focused</b> on the products of learning.
<b>Collaborative:</b> Teachers & students work together.	<b>Teacher directed</b>
<b>Fluid-</b> Ongoing process	<b>Rigid-</b> fixed time

# Unit Five: Creating and Implementing Constructively Aligned Instructional Plans (3 hrs.)

## Unit Objectives

- Understand the concepts and purposes of instructional planning
- Differentiate the components of instructional planning.
- Formulate objectives based on Bloom's taxonomy of the three objective formulation domains in a balanced manner,
- Develop the annual plan for their subject areas,
- Develop sample lesson plans in specific lessons.
- Appreciate the importance of developing a constructively aligned annual plan and daily/weekly lesson plans.
- Evaluate the previously developed annual plans and lesson plans and make the necessary improvements.

## Key Topics

- Session 5.1: Concepts of instructional planning and formulation of objectives in planning
- Session 5.2: Developing annual plan and lesson plans.

## Session 5.1: Concepts of instructional planning and its components

### Session Objectives

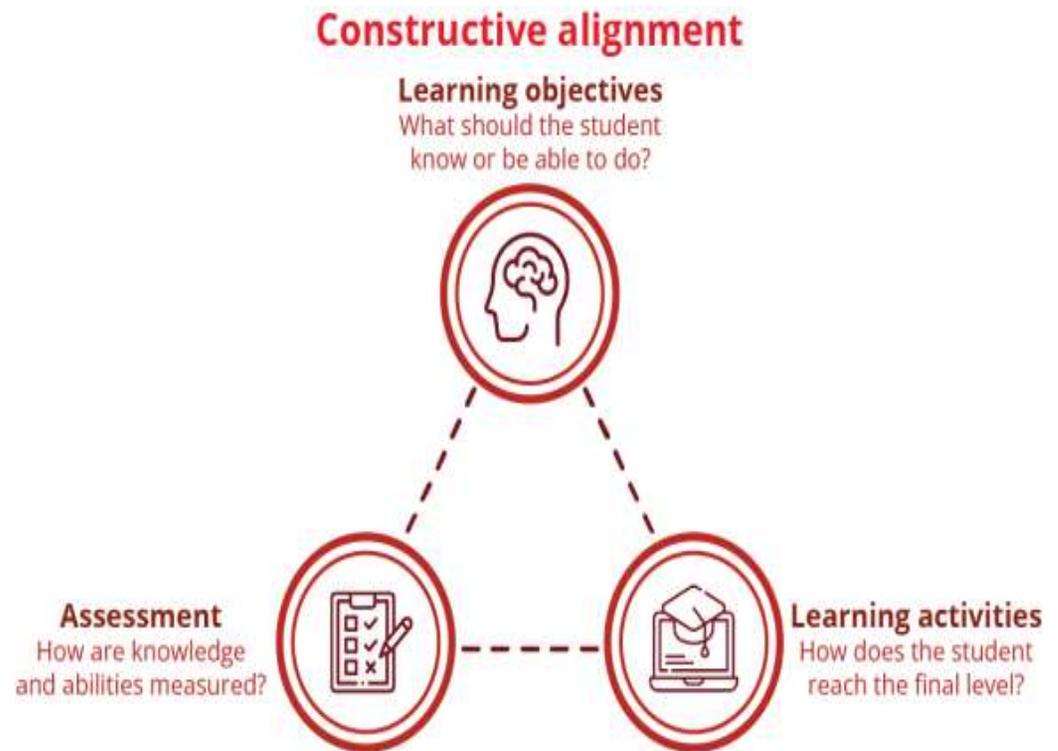
- *Identify the concepts of instructional planning,*
- *Analyse the characteristics and purposes of instructional planning,*
- *Address the key instructional planning questions to be included during instructional planning.*
- *Identify the major components of instructional planning.*

### Activities

- **Activity 1:**
  - 1. what is instructional planning?
  - 2. what is its purpose?
  - 3. What are the basic question addressed in instructional planning?

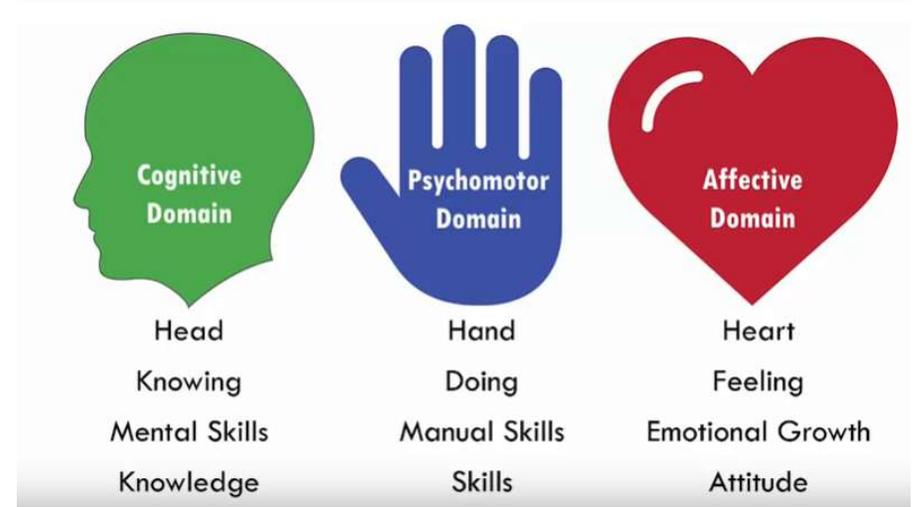
# Activity

- What is constructive instructional alignment?
- Effective teaching involves aligning the three major components of instruction: learning objectives, assessments and instructional activities.
  1. Discuss how these components are aligned:
  2. What should the student know or be able to do?
  3. How does the student reach the final level?
  4. How are knowledge and abilities measured?



## Activity

1. *How are you formulating objectives for annual plan and daily lesson plan of your subjects?*
2. *How is the composition of the three domains of objectives?*
3. *What are the major differences in stating objectives for annual plan and daily lesson plan?*
4. *How can you state SMART objectives for a lesson plan?*
5. *Formulate SMMART Objectives for a single lesson using the 3 Hs.*



## Bloom's Taxonomy of objectives (try to balance the domains)

### **Cognitive**

- Knowledge
- Understanding
- Application
- Analysis
- Evaluation
- Creating

### **Psychomotor**

- Imitation
- Manipulation
- Precision
- Articulation
- Naturalization

### **Affective**

- Receiving /Attending
- Responding
- Valuing
- Organization
- Characterization

# Further discussion points

