



Ministry of Education,
Science, Technology and Sports

EFFECTIVE PARTICIPATORY TEACHING AND LEARNING



PREAMBLE

Strengthening education quality through teacher effectiveness is critical and a top priority agenda in all nations. In Sub Saharan Africa, almost all countries have been involved in Education Reforms, especially in developing new curricular. The need has been driven by changing demands in education such as meeting Sustainable Development Goals and in particular **Goal 4; Education for Sustainable Development (ESD)** advocating for quality inclusive education that will enable all individuals to contribute to sustainable development. In order to realize this, teacher competence and teacher performance is critical. Teachers are challenged to be highly resourceful, well informed and possess effective teaching skills (Wen, Penga, McNessa, & Sally, 2014). (UNESCO, 2015) advocated for teachers to use interactive learner-centered teaching and learning, action oriented transformative pedagogy that supports participation, collaboration, problem oriented and inter-intra disciplinary approaches, however, the Education Sector Analysis Report - ESSA (2019) points out that there is a skills gap among teachers' current skill sets and competencies.

In Uganda, The New thematic curriculum (2004), for the primary schools, advocates for rapid development of Literacy, numeracy and life skills. The Revised Primary Teacher Education (PTE) curriculum, launched in 2013 (LaMendola 2014), aims at strengthening teachers' practical and interactive ability by increasing pedagogical competence to meet challenges of the 21st Century. The MoES, through the department of Teacher Instructor Education and Training (TIET), in collaboration with Non-Government Organizations (NGOs), are currently implementing education interventions aimed at improving pedagogical practices of teachers in the primary schools and primary teachers colleges. The effectiveness of a teacher is greatly measured by knowledge and pedagogical skills possessed and ability to use them appropriately to create conditions that sustain learners in the learning process, hence increasing their capacity to learn. Active teaching and learning gained popularity as an effective approach and has been adopted by the recent education reforms in Uganda and indeed worldwide.

It is in this regard that the Ministry of Education and Sports, through the Department of Teacher Instructor Education and Training (TIET) and Education Local Expertise Centre Uganda (ELECU) have developed a simple teacher handbook taking teachers at all levels through the various indicators of participatory methods of teaching. It spells out how the teacher can effectively use these indicators to activate learning during the classroom teaching and make it more interactive and participatory.

The Department of Teacher Instructor Education and Training therefore calls upon all teachers at various levels to make use of this handbook to facilitate active teaching and learning in education institutions.



Dr. Jane Egau Okou

COMMISSIONER TIET

Introduction

The need to strengthen the quality of teachers hence increase their competence and education quality is critical and currently, it is a top priority agenda in all nations. In Sub Saharan Africa, almost all countries have been involved in Education Reforms, especially in developing new curricular. The need has been driven by changing demands in education such as meeting Sustainable Development Goals and in particular Goal 4; Education for Sustainable Development (ESD) advocating for quality inclusive education that will enable all individuals to contribute to sustainable development. In order to realize this, teachers' competence and teacher performance is critical. They are challenged to be highly resourceful, well informed and possess effective teaching skills (Wen, Penga, McNessa, & Sally, 2014). (UNESCO, 2015) advocated for teachers to use interactive learner-centered teaching and learning, action oriented transformative pedagogy that supports participation, collaboration, problem oriented and inter-intra disciplinary approaches.

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However ELECU during the implementation of MOSIQUE project identified that despite all these interventions, active teaching/ learning practices are rarely and inadequately utilized by the teachers to activate learning as advocated by the recent educational reforms. Many teachers have abandoned effective methods of teaching and instead concentrate on drilling and "coaching" students in order to pass the national examinations Otaala, Maani & Bakaira (2013) Okonye; 2007). Otaala et al; I, (2013) further observe that practical methodologies such as active learning of teacher training have been undermined and are inadequately implemented in the Teacher Training Programs in Uganda. According to TIISA Report by MoES (2012,2014) as well as UNEB (2011), in a report of the National Assessment of Progress of Education (NAPE), the quality of PTC graduates is very low, they lack effective teaching skills and competence in handling classroom teaching and learning. Furthermore, NAPE 2011, 2013,2015) have consistently shown that about 75% of teachers in Uganda do not meet the expected proficiency in teaching. Similarly The world Bank service delivery (2013) indicators found that 4 out of 5 teachers did not possess the minimum knowledge in pedagogy.

It is in this regard that ELECU has developed a simple teachers' handbook taking teachers at all levels through the various indicators of Active teaching and learning practices. It spells out how the teacher can effectively use these indicators to activate learning during the classroom teaching.

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01

THE CONCEPT OF PARTICIPATORY METHODOLOGY

Teaching is a process that facilitates and promotes learning i.e. brings changes in the learner in order to achieve desired outcomes. An outcome is what learners can demonstrate after a learning experience. Learning outcomes can be content, skills or attitudes. Examples of learning outcomes are: ability to read and write; solve mathematical problems; communicate, and work cooperatively; and interpret situations /events. In order for learners to benefit in classroom instruction and achieve intended learning outcomes, teachers should use participatory methods of teaching and learning.

What is meant by participatory methods?

These are methods which provide opportunity for the learners to get actively involved in their own learning. With this method, the pupils explore, interact with the learning materials, share views and ideas, learn in groups, investigate, make decisions, observe, and solve practical problems. These methods are experiential as pupils learn by doing activities. Participatory methods are also called active learning or learner-centered learning, because these methods take account of learners needs; abilities, interest, age, background, and experiences, including special needs.

Examples of participatory methods

Participatory methods include: games, role plays, experimentation, discussion, inquiry based, problem-solving, projects, rhymes, storytelling, debate, and case studies.

What is the role of the teacher in using participatory methods?

- i. Structure the learning environment
- ii. Guide the learning process e.g. using probing questions, illustrations, relevant examples
- iii. Relate the teaching to the real life experience
- iv. Use varied instructional materials and media
- v. Use varied techniques within the lesson such as learning in groups
- vi. Use learners experiences and ideas
- vii. Differentiate tasks i.e. structure tasks in relation to the various learning needs
- viii. Continuously monitor and assess the learners during the teaching learning process
- ix. Provide constructive feedback
- x. Offer a warm, friendly, nurturing environment that encourages participation

Using participatory learning methods requires a teacher to have the following personal and professional qualities:

- i. Have a passion for teaching and a sound knowledge of subject matter
- ii. Prepares well for teaching and displays high organizational skills
- iii. Have effective communication skills
- iv. Be a reflective teacher, creative and resourceful, reflecting on your actions in order to improve
- v. Ability to build strong relationships with learners and community
- vi. A role model displaying high professional ethics and moral conduct
- vii. Have affection for the learners
- viii. Empathy – showing genuine concern, understanding, and being supportive
- ix. Humour – providing an environment of fun, Laughter without compromising learning.
- x. Concern and commitment
- xi. Attributes of honour such as honesty, cleanliness, punctuality, and respect for others etc.

You now understand that participatory learning is about the learner; all that the teacher does is about helping the learner. It is a complex interplay between the teacher, the learner, and the subject matter.

Reflection

1. What challenge would you anticipate in using participatory methodology?
2. How would you overcome this?

Children from Kimotozi, Nakaseke District using instructional materials



Believe that all children can learn, at their own pace, time, and through encouragement.

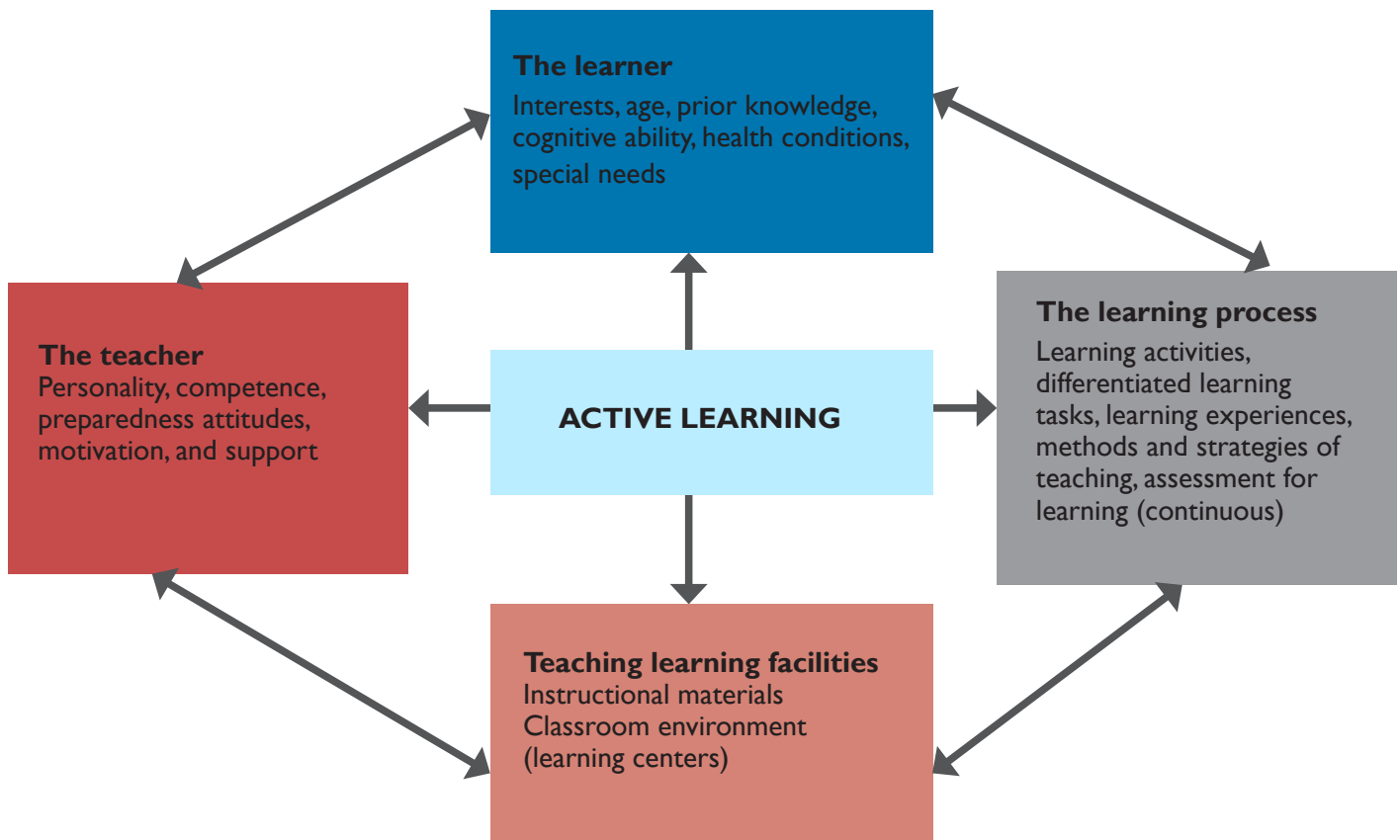
02

ACTIVE TEACHING AND LEARNING

Active teaching and learning involves guiding pupils through varied learning experiences in order to attain set competences. This calls for the teacher’s use of effective participatory methods and strategies. Active learning is based on learner-centered approaches of teaching which the teacher has to plan her/his teaching to suit learners’ interests, experiences, and abilities. In this approach learners are given the opportunity to perform activities that stimulate learning and enable them to discover knowledge on their own. This is opposed to a teacher-centered approach, which focuses more on what (the content), is taught rather than the learner. In this approach, the teacher transmits knowledge while learners listen passively.

What is active learning?

Active learning refers to a set of teaching strategies in which learners are actively engaged and participate in learning activities under the guidance of the teacher. Such activities include: learning games; paired discussions in small groups; role playing; problem solving activities; think-pair-share, and collaborative learning.



The illustration above shows that the elements of active learning are integrated. The learner's abilities, aptitudes, values, home background, all determine the capacity to engage in learning activities. The teacher on the other hand should have the best practices, sound pedagogical principles, and subject knowledge to make the lessons more interesting and insightful for the learners. It also calls for a good teacher-learner relationship and an open learning environment where different opinions are equally respected and where there is no fear of ridicule from either one's peers or the teacher.

Characteristics of active learning

- i. Promotes learners' participation and engagement and so increases their interest and motivation to learn.
- ii. Involves students in learning-process activities rather than passive listening.
- iii. Provides more frequent and immediate feedback to students.
- iv. Promotes deeper learning and leads to development of higher order skills and competences such as critical thinking, problem solving, and communication.
- v. Learners master the concepts learnt and so are able to retain and apply what is learnt.
- vi. Learners are able to monitor their own learning and so take greater responsibility over it.
- vii. Improves interpersonal skills, such as team spirit, collaboration, collective responsibility.
- viii. Creates opportunities for differentiated instruction.
- ix. Promotes understanding: "I hear and I forget. I see and I remember. I do and I understand."

Guidelines for teachers to implement active teaching and learning in the classroom

- i. Provide a variety of learning styles and strategies including individual and group activities.
- ii. Provide learners' the opportunity to touch, manipulate, and experiment; this will enable them to use their senses to learn. Experiential learning has a more lasting effect.
- iii. Allow learners opportunities to ask questions, solve problems, and think independently.
- iv. Respect and trust that all learners can learn. Provide differentiated tasks to enable each learner to reach her/his own pace and realize intended outcomes.
- v. Integrate the content across all the learning areas.
- vi. Provide for extensive discussion to improve communication abilities as well as expressive opportunities.
- vii. Structure the learning environment with educative learning centers of varied areas of learning.
- viii. Conduct continuous assessment (for learning) intended to help each learner to make progress in her/his learning.

03

ENGAGING LEARNERS ON TASK

Participatory learning requires that the teacher plans his/her lessons to ensure that learners are using all the allocated time of the lesson to learn. When a pupil is concentrating, engaged in learning activities, it can be said that she/he is On-Task and so that pupil is learning. On the other hand, when the learner is not doing any learning activity, or is engaged in doing an activity which is not related to what the teacher is doing, she/he is Off-Task, and therefore that pupil is not learning. A good teacher will always want to ensure that all the learners are On-Task; remember all children have a right to education and to learn. When pupils are not learning, the teacher has denied them the opportunity to learn.

Students learn according to what they do, not according to what their teacher does. Therefore the teacher has to keep all the learners engaged in learning during the lesson. This is done by providing them opportunities to learn by doing carefully selected learning activities and learning experiences. The more learners spend time on doing learning activities, the greater is the increase in learning.

There are two types of On-Task activities

1. Active on Task: the learner her/himself is actively doing something e.g. reading, doing an exercise, writing, taking part in the discussion, demonstrating, explaining, describing.
2. Passive on Task: The pupil is listening to the teacher, peers' presentation, or observing a demonstration

Roles of an interactive teacher

What is interactive teaching? This is the type of teaching in which learners are given the opportunity to express their ideas, brainstorm, reflect on them with the teacher and peers, and agree on consensus. The following are some of the roles of a teacher in maintaining an interactive classroom:

Controller: Teacher controllers determine what the learners do. They ensure that the learners are engaged in learning activities. They can often predict what is going to happen in their classroom because everything is mapped out ahead of time.

Director: The teacher structures the classroom in such a way that the learners are given direction.

Manager: Plans lessons and activities but allows the learners to take up responsibility to display their own creativity and develop their expertise or practice.

Facilitator: This is a less directive role in facilitating the learning process. The teacher motivates learners by preparing the learning environment and providing guidance that will lead learners to explore and discovery on their own rather than transmitting knowledge to them.

Resource: This is the least role less directive.

Note that in a participatory methodology, the teacher should sufficiently use active on-task behavior and less of passive on-task behavior.

Review Table 1 and reflect on your class behavior during previous lessons.

Table 1: On-task and off-task behaviour

On-task behaviour (all focused on the current lesson)	Off-task behavior (not focused on the current lesson)
<ul style="list-style-type: none"> Participating in a discussion Responding to the teacher Doing seat work exercises Carrying out an experiment Explaining to peers Listening Paying attention Counting Reading a book Working cooperatively with others 	<ul style="list-style-type: none"> Playing with objects Inappropriate gestures Throwing things Lying on the bench Sleeping Making noise Daydreaming, Looking out of the window Disturbing other children Yawning and feeling bored

04

SCHEMING AND LESSON PLANNING

A. SCHEMES OF WORK

Schemes of work are essential for efficient teaching and learning. A scheme of work is an interpretation of the syllabus. It is a plan which consists of the number of lessons planned to cover a specified period of time; a term, or a year of study. Making a scheme of work requires a lot of time hence it calls for the patience and commitment of the teacher. A high level of organization and critical thinking is also required if a teacher is to develop a quality and comprehensive scheme of work.

It is important that a scheme of work should be ready by the beginning of the term (year), since it is a working tool providing an overview of what to be taught. It is also intended to guide in developing lesson plans. Before planning a scheme of work, one has to take into consideration the goals and objectives of education, the course content, and how much focus is allocated for each topic. The syllabus therefore is a teacher's major reference when developing a scheme of work.

What are the elements/components of a scheme of work?

The basic information: This includes week, lesson, and date.

The topic or theme preceded by the subtopic: Indicate precisely the aspect which is to be covered.

The competences (or the objectives) of the theme/lesson of study: A competence is an ability to do something. Examples of abilities include: Ability to draw, ability to write, ability to count, and ability to label the parts of a system. Competences are stated in terms of individual learners i.e. what a learner can do. It is not generalized. This implies that the teacher has to ensure that each learner at his pace is helped to achieve this competence. Competences emphasize learning by doing. These must be stated in behavioral terms. The Uganda Primary Curriculum is competence based. Primary 1-3, follows a thematic approach, and the subject-based curriculum Primary 4-7 spells out language to be developed to boost children's literacy as well as subject competences.

The content (subject matter): This is what the learners will learn. It consists of the comprehensive key ideas, knowledge (facts, concepts, and ideas), skills and attitude. A good lesson should strive to develop all these aspects; this is called holistic development.

The learning activities and learning experiences: These are what the teacher has planned for the learners to do in order to achieve the intended competences. They may include experiments, solving number problems, writing, observing and interpreting pictures, specimens and environment, reading an essay/text book, constructing sentences, drawing and labeling diagrams such as maps, listening to different sounds, and watching a film. The learning activities will portray the assessment procedure that will be used to gauge the progress of learning by individual learners. Pupil's activities are the basis of children's learning.

The methods and techniques: These refer to the teachers instructional (delivery procedure). They include: role-play, small group discussion, think-pair share, discovery/inquiry, project, brainstorming, reciting, demonstration, interactive lectures and many others.

The learning resources (teaching learning aids): Learning can best be achieved when learners interact with the learning materials. A teacher should strive to have an instructional/learning material in every lesson because they support learning by providing an experience. These include print and non-print material equipment, specimens, real objects, pictures, text books, wall charts and maps, abaci, and others. They help the teacher to explain new concepts clearly, resulting in better student understanding of the concepts being taught.

Lifeskills and values: These are skills needed by an individual in order to lead a productive, fulfilling to cope with challenges. They are not taught directly during the teaching but learners experience them through the activities and methods used.

References: Is the title and page of the textbook used to derive the content.

What are the benefits of making a scheme of work?

- i. It builds confidence when making a lesson plan.
- ii. It breaks the syllabus into manageable teaching units.
- iii. Once made, it saves a lot of time since it clearly spells out what to do at a specified time.
- iv. All the topics will be covered if the scheme of work is followed well.
- v. It clearly guides in the achievement of objectives/competences and differentiated learning objectives.

B. LESSON PLANNING

Lesson planning is a process of identifying, reflecting, and aligning content, methods, learning activities, learning experiences, and resources in order to have an effective lesson delivery and so achieve intended learning outcomes. Good lesson planning is a vital and essential process of teaching and learning. A lesson plan is derived from the schemes of work i.e. interpretation of the scheme of work. It is a visualization of how the instruction will flow; it is teaching before the real lesson. A well-prepared teacher will always be able to conduct a successful lesson.

The elements of a lesson plan

A lesson plan consists of elements that are closely integrated. They include the following: objectives / competences; content/subject matter; learning activities and learning experience.

Teaching aids / media and evaluation procedure

A good lesson plan also consists of assessment procedures in which a teacher systematically monitors how pupils are progressing towards meeting the learning competences. Teachers continuously assess the learner during the teaching learning process i.e. continuous assessment. This will give teachers information about how a learner is progressing. Continuous assessment caters for individual needs.

Timing

Teachers plan different learning activities and assessment on time. They make sure students are active for the larger part of the lesson.

Typically, a lesson will contain four phases: introduction, presentation of new information, stabilization, and practicing with new information and evaluation.

Basic structure of a lesson plan

Preliminary section: This provides information such as the class, the subject, the number of the learners and the time in which the lesson will be taught. The kind of learning activities, instructional materials, grouping, and the length of the lesson is based on the information revealed in this section.

Step 1: Introduction: Getting learners ready to learn; e.g. calling attention with a related activity to the lesson (song, game, mental activity, physical etc.) review of homework, doing corrections, orientating to the new lesson.

Step 2: Presentation: This is a stage of lesson the actual lesson development. New concepts are introduced through various appropriate learning experiences and learners are engaged in doing learning activities, (doing activities, observing, carrying experiments, rhymes games, reading, trying out, interpreting, role playing etc.). The learners are also engaged in interacting with learning instructional materials. The teacher uses planned methods such as interactive lecture, role play, group discussions, inquiry /discovery methods to enable learners gain planned competences.

Step 3: Practice: Use, apply the concept taught (practicing language vocabulary, solving number problems, discussing daily applications of what has been learnt)

Step 4: Production: Creativity: Pupils create their own work using learnt knowledge/skills (drawing, writing an essay or a poem, constructing sentences, modeling)

Step 5: Lesson evaluation: The teachers find out whether learners have grasped what was learnt during the lesson. This is done using oral questions, written exercise, and simple project work. Assessments can also be done throughout the stages of the lesson to inform how learners are progressing in their learning.

05

CONCEPT BUILDING

Concept building is a process in which new concepts are introduced to the minds of the learners. This is important because, once the concept has been clearly grasped in the learners mind it forms a foundation of learning of that specific topic. It is essential for the transfer of knowledge and skills. Every lesson has a topic where new words or concepts are introduced to the learners, for instance in the following examples: in teaching Mathematics to young lower grade pupils, you will need to introduce the concepts of 'subtraction or comparing sets'. In a science lesson the teacher may have to introduce concepts such as evaporation, sanitation, density, mass using active learning strategies.

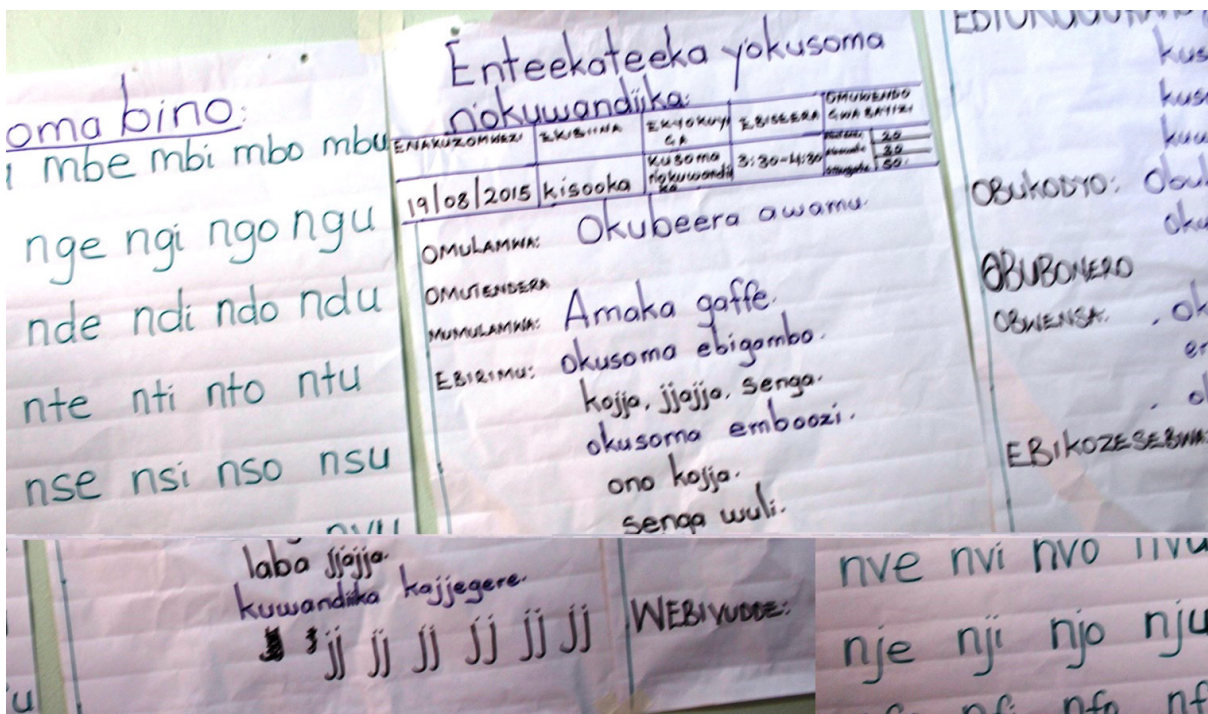
What is a concept?

This is a representation of a picture of something in one's mind. It is a mental picture, or a perceived idea about an object, person, or event.

There are different categories of concepts and they include:

- Concrete concepts: These can be observed, i.e. seen, touched or even heard. Examples are, water, furniture, bicycle, shape, colour
- Abstract concepts: These cannot be seen; examples are; an atom, weight, energy
- Process concepts: Evaporation, germination, photosynthesis

Active teaching and learning requires that these concepts should be introduced to the learners in effective and efficient ways so that they can easily be understood by learners.



Guidelines for effective strategies in concept building

A teacher should create a rich realistic context for the learners; this can be done by using real material (concrete) to explain concepts e.g. ball for round or an egg for oval shapes.

- i. It is also important for the teacher to use the prior knowledge of the learners (what they already know about the topic/concept). Research shows that if learners can connect new concepts to prior knowledge, learning becomes more effective; these concepts become part of the long-term memory (Perkins D.N. 1992. Smart Schools. Better Thinking and Learning for Every Child. New York: The Free Press.)
- ii. Teachers should allow learners to practice concept building: Learners will make mindmaps or word spiders, listing their associations, and make relationships with the new concept e.g. "Ball is round", "clay-pot", "evaporate- heat".
- iii. Teachers should use active learning strategies to engage learners: Stimulate active learning e.g. think-pair-share method, role play, and games.
- iv. Use a drawing before or after the lesson: Children draw what they already know or what they have just learnt.
- v. Teachers should provide opportunity for the learners to observe a situation, interpret pictures or talk about events.
- vi. Provide opportunity to reflect: Children reflect on what they have learnt or what they still want to know (From: Marzano, 2008. Dimensions of learning).

06

ASSESSMENT DURING THE TEACHING AND LEARNING PROCESS

What is assessment?

Assessment refers to finding out how much a learner knows or can do. It can be summative also called assessment of learning i.e. assessing learners to find out what they have achieved as a result of learning. It is done at the end of the lesson, topic, or course of study. Assessment can be formative also called assessment for learning i.e. assessing to find out how the learner is progressing during the teaching and learning process or during the course of study. In this handbook, focus is placed on assessment for learning (formative) type of assessment to activate learning.

Types of formative assessment

Continuous Assessment: It is the in-built, periodic and systematic method of assessing and evaluating a person's attributes. Information collected from continuous behaviour of pupils will help a teacher to better understand their strengths and weaknesses in addition to providing a comprehensive picture of each student over a period of time.

Assessment for learning: Assessment for learning can be described as a process by which results of assessments are used by the teacher to adjust teaching and learning strategies during the learning process. It also helps planning and modifying teaching and learning programs for individual learners, identifying pupils' strengths and building on them to identify students' learning needs.

Note: The two types of assessment are used interchangeably to have a similar meaning as approaches to teaching and learning that create feedback used to improve learning performance.



Guidelines of assessment of learning

- i. Assessment for learning occurs throughout the learning process the teacher and the pupil are interacting continuously. The role of the teacher is to create an environment such as positive relationship, friendly, non- threatening, encouraging and supportive.
- ii. The teacher's role is to align instruction to suit particular learning needs of her/his pupils.
- iii. A teacher should select and adapts materials and resource to cater for individual/ varying abilities in her/his classroom.
- iv. The teacher should also endeavor to differentiated teaching strategies and learning opportunities for helping individual students move forward in their learning.
- v. It calls for the teacher to provide immediate feedback and direction to learners.
- vi. A teacher is required to use records of assessment to modify her/his teaching and learning strategies.

07

QUESTIONING AND ANSWERING

Questioning is an interactive skill and technique which can lead to successful instruction or communication. It is by far one of the most fundamental aspects of active teaching and learning. Children's level of achievement and engagement depends on the type of questions asked. Teachers commonly use questioning at all grade levels. A study from the early 80s indicates that teachers ask 300 to 400 questions a day (Levin and Long, 1981). Note that questioning during the teaching-learning process is most effective when a teacher plans them in advance. This will enable the teacher to phrase the questions clearly and to present them in an organized and logical sequence. When prepared earlier, the teachers will also be able to reflect clearly on the level of thinking that learners are expected to develop through the questioning.



Categories of questions:

These are the thinking levels based on Bloom's taxonomy:

- i. **Creating:** Requires a learner to use original creative thinking to solve a problem. Action verbs include: write an essay, develop, predict.
- ii. **Evaluating:** Requires that a learner makes judgment on the whether an idea, a program is worth according to set standards. Action verbs include: decide and justify
- iii. **Analyzing:** Requires that a learner solves a problem by examining relate or facts or information
- iv. **Applying:** Requires a learner to apply applying what he/she has learned in everyday use to solve practical problems. Action verbs include: clarify, select, use, design, solve.
- v. **Understanding:** Requires that a learner clearly explains a concept in his/her own word. Action verbs include: describe, compare, contrast, explain.
- vi. **Remembering:** requires that the student recognize or recall information. E.g. Action verbs include: Action verbs include: what, where, state, name, list

Higher order thinking skills



Lower order thinking skills

Closed questions

These require limited answers. Learners will answer yes / no, correct / wrong or simply list, identify, name etc. They require memory. They are usually of a lower cognitive level and used to check what a learner has remembered from the information taught. Examples of closed questions are: “What is the capital of Ethiopia?” or “Lake Victoria borders three countries. Right or wrong?” or “List five types of vegetation.” “Name the regions of Uganda”. Closed questions are good to use when you want to recall information from your learners.

Open-ended questions

These require many answers from the learners. These types of questions may be used to check learners’ understanding of new knowledge. They require learners to compare, contrast, explain relationships, generalize, analyze, and they are usually of a higher cognitive level and so they develop higher thinking skills of learners. Examples of open-ended questions are: “Explain in your own words how clouds are formed.” or “Why do we cook before eating food? Explain in your own words what happened when....?”

Why should teachers use questioning?

Good teaching always starts from questioning. Questions focus the students’ attention on what is to be learned. This kind of questions however should be pitched to the pupils’ experiences (prior Knowledge), level of their understanding. Questions are useful to the learners in the following ways:

- i. Questions develop the interests of the learners and motivate them to be actively involved in the lesson.
- ii. Learners are encouraged to think further and more deeply hence develop critical thinking abilities of the learners.
- iii. Questions also activate mental processes and thus make the learners aware of their own learning progress.
- iv. The learners are also stimulated to learn on their own (independent learning).

Techniques of good questioning

Wait time: This means the amount of time a teacher allows after a question is asked and or before responding after a pupil stops talking. More wait time promotes achievement, improves retention, and cognitive processes.

Feedback: Providing feedback is very important (refer to feedback in the next topic)

Asking questions	Answering questions
Create trust all children are able	Give pupils time to think
Ask easy question first	encourage answers from a variety of pupils
Avoid closed questions	Look at pupils when they are talking
Use a language matched with pupils ability level	Do not interrupt when they are responding
Ask questions to the a group- the whole class	Do not embarrass
Allow wait time (ask-pause-pick - pause-feedback)	Do not disagree immediately
Ask one question at a time	Build on pupils' response by asking further
Avoid threatening when asking questions	Ask students to clarify their responses
Allow more students questions and feedback	Make sure everybody has heard the answer
Distribute questions evenly across the class	Offer constructive feedback
Use appropriate variety and mix the different levels of questions	

08

PROVIDING FEEDBACK TO THE LEARNERS

Feedback is the foundation for learning; it is part of the learning process. The skill of providing feedback to the learners has been proven to increase and improve pupils' learning outcomes. Teachers, therefore, must have the ability to provide effective feedback to the learners in order to promote their learning.

What is the meaning of feedback?

Feedback is evaluative information provided by the teacher, peer, book, parent, report card and self/ experience) regarding aspects of one's performance or understanding. In the teaching-learning situation, feedback is a teacher's constructive response/guidance given to a pupil during the process of learning. Feedback has a positive effect on learners' achievements. Assessing learners without providing feedback is meaningless; feedback helps learners understand what is required of them and how they should perform different tasks.

Types of feedback

Feedback on self-level: This kind of feedback is psychological, directed to the pupil. It is the lowest level of feedback and it does not enhance achievement or learning. Examples of such feedback is "well done," "very good", "clap for him", "You have done well". It only comforts the pupil, but does not direct her/him from the task. E.g. $1+3=6$, "well tried" has not helped the pupil to focus on the task, but has only comforted him.

Feedback on task level: This is the feedback directed to the task done by the learner. It is also referred to as corrective feedback. This feedback leads to new knowledge or information for example learning to solve a problem, or performing an activity well. An example may be "that is correct" or "that is incorrect". It focuses the learner on the task to find out why it is correct or not. This is a common type of feedback. It is better than praise in promoting a learning achievement.

Feedback on process level: This kind of feedback is aimed at encouraging a learner to complete a task. It is feedback given to the learner about an approach or way of doing a task leading to creating a final product. Examples may include: when completing a project; when working through the steps of a mathematical problem; or when carrying out an investigation. This feedback enhances deeper learning because it guides the learner to detect errors while working; the learner is given cues to find out more information; and it is more interactive.

Guidelines for providing feedback for learning

- i. Good feedback should enable the pupil to learn, and explain what the pupil is doing correctly or incorrectly. The feedback given should be educative in nature.
- ii. The feedback should be given in a timely manner so the pupil responds to it positively and remembers it; if it is delayed the likelihood of forgetting is high.
- iii. The feedback provided should be clear to the pupil and directed to a specific skill or knowledge. It should be focused on a process rather than the result.
- iv. When providing feedback, be sensitive to learner needs. Avoid discouraging, it damages self-esteem. Provide encouragement. Compliment, correct and compliment.
- v. Avoid judging the pupil, focus on what has been done rather than who did it.
- vi. Provide feedback after the learners have attempted the solution.
- vii. Avoid communicating your attitude towards the learner e.g. use of the voice, body language, facial reactions, and other gestures.
- viii. Avoid comparing learners.

09

GROUPWORK

The social training that results from learning in a group is one of the most valuable means of learning. It is a way in which the children learn how to deal with varying opinions; they learn to accept and respect each other. They cooperate and work as a team for a collective outcome. Apart from this social function, group learning is a powerful way of constructing knowledge.

What is group learning?

Group learning is a collaborative, participatory, learner-centered approach in which learners are collectively involved in constructing knowledge and applying skills. Group work is not sitting in groups. A teacher can arrange the seating arrangement so that the learners are in groups, yet they do work individually. During effective group work the members of the group (4-6 people) need each other to complete a complex task. The complex task contains several smaller tasks. Each group member is responsible for working on his or her different smaller task. All input together will lead to resolution of the complex problem. Everybody is equally responsible for the result.

A group consists of 4-6 pupils. However, grouping learners will depend on the class size, the nature of the assignment, and the available space.



Children from Keera in group forming words

Guidelines for organizing effective group work

- i. Setting clear ground rules for groupwork.
- ii. Designing assignments carefully to suit learner needs to ensure that all members of the group will be active.
- iii. Designing assignments that directly relate to the learning competences of the course and directly to the content that has been taught.
- iv. Teachers need to monitor each group, provide feedback and assist when necessary. This may prove to be more time-consuming than traditional teaching formats.
- v. Groupwork should be designed in a way to promote assessment that is valid, fair, and accurately reflects the knowledge and performance of all group members.
- vi. Ensure that the group leadership is effective especially in encouraging all members to participate.

Reflection

- I. What consideration should a teacher bear in mind when grouping learners for a learning activity?

10

USING TEXTBOOKS

High quality textbooks and learning materials are essential instruments for effective teaching. In general, governments that decide to enhance the quality of teaching and learning pay a lot of attention to the development of appropriate text books to enhance learning because they are a resource for both teachers and students. Textbooks are usually written by one or more expert teachers, college professors, or educationalists who are knowledgeable in their field.



Guidelines for effective use of textbooks

- i. Have questions that direct pupils to look for the information in the text.
- ii. All the activities and content are related to the objectives and the lesson at hand.
- iii. Ensure that all the learners have access to the text.
- iv. Select the text which is pitched

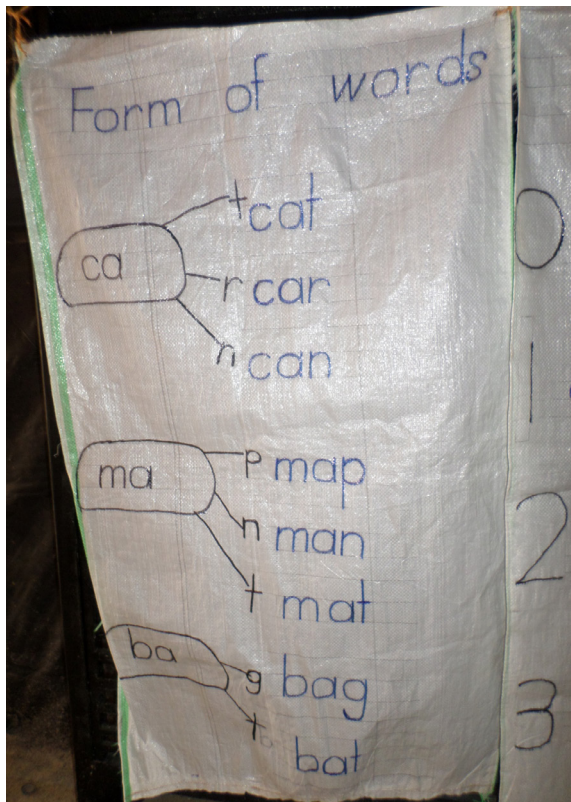


USING WORKSHEETS

A work sheet can be referred to as a sheet or a specific simple print, consisting of specially prepared exercises in the form of questions or instructions for the learners to answer /follow. It is intended to give learners the opportunity to learn through discovery or practice with an aim of gaining mastery in a specific skill and knowledge.

The different types of worksheets

- i. **Fill in blanks /completion worksheets:** missing letters, missing words or numbers completing sentences
- ii. **Answering questions:** After reading a short story about a drawing, or a picture relating to a topic learnt i.e. interpreting
- iii. **Practical activity worksheet:** Contains instructions that the learners will follow to discover a fact, e.g. in an experiment
- iv. **Matching worksheets:** Word to word, picture to picture, object to function or to an idea. E.g. “anopheles mosquito –transmits malaria”
- v. **Ordering numbers:** In ascending or descending order, in series
- vi. **Rearranging sentences and ideas:** To make a story
- vii. **Number games:** Counting, addition, multiplication
- viii. **Puzzles:** Spellings
- ix. **Snakes and ladders:** Creative on the different topic across the subjects e.g. on immunization, HIV, vocabulary



Worksheets may fulfill at least four functions

- i. **Making textbook assignments available.** There may not be enough textbooks available in the classroom. A teacher may copy exercises from the textbook and distribute these as worksheets to the students.
- ii. **Accommodating fast and slow learners.** Some textbook assignments are readily completed by some students while other students struggle. Both groups would benefit from extra assignments. The fast learners could be challenged; the slow learners could be offered easier or more structured tasks. Worksheets, therefore, can be used to help learners gain confidence.
- iii. **Offering a variety of activities.** The challenge to offer a variety of learning activities to stimulate learning. Worksheets could be designed to offer a variety of extra exercises on top of those in the textbook. This requires adapting them to individual needs. In this way the teacher may also reach students with different learning styles.
- iv. **Assessing students' progress.** Before creating a worksheet, teachers should know precisely what objective it should serve. What should students learn by completing the assignments on the worksheet? It is advisable to mention these objectives clearly on the worksheets.

How can a teacher use worksheets to activate learning?

- i. Encourage learners to work in groups and discuss as peers to work through the activities.
- ii. Differentiate worksheets so that learners progressively work at their pace.
- iii. Use the worksheets during the lesson so children can follow the lesson development as they do the activities.
- iv. Ensure that there are precise instructions on how to use them so that they use them maximally.
- v. Make sure that the objectives are clearly set and learners understand them.

As a teacher you can design worksheets for different purposes. There is no limit to the kind of questions, types of exercises and assignments you can include in a worksheet. It is important you balance between assignments that contribute to comprehension or ability to apply subject matter. Try to avoid memorization worksheets.

12

INSTRUCTIONAL MATERIALS

Instructional materials are those materials that the teacher uses to facilitate her/his delivery of the lesson. These may include equipment like test tubes, markers, and chalkboards. The learning materials can be explained as those materials from which the learners can derive the content, and concepts of the lesson. Examples include: specimens to be reacted; leaves to be studied; and an essay to be read. Effective teaching and learning will take place when a teacher has good communication skills and uses instructional teaching and learning materials to achieve the teaching and learning objectives. Teaching learning materials are used to transfer to the learners the skills, knowledge, and attitudes to succeed academically.

Instructional materials are important in the following ways:

- i. They can be used in leading a discussion and building abstract concepts.
- ii. For explaining the content of the theme topic or lesson.
- iii. Demonstrating skills and conducting experiments.
- iv. Instructions for carrying out some activities can be written on charts.
- v. Teaching learning aids when developed well can be an effective means of communication.

What is the value of instructional materials?

- i. The delivery of instruction will be motivating to the learners; this means the use of teaching learning materials makes learning interesting and meaningful.
- ii. Teaching learning aids make the learning interactive. When the learners interact with the learning material they make use of their senses so they learn through experience.
- iii. The learners also develop positive attitudes towards learning as well as good relationships with the teacher.
- iv. Knowledge acquired will be retained for a longer time.
- v. Different skills and values will be acquired by learners such as observation, manipulation, critical thinking, and responsibility.
- vi. Students will be actively involved during lessons.



A variety of instructional materials

Categories of instructional materials include:

Non-projected /Visual materials

- i. Three dimensional teaching learning materials include: Real objects (regalia) e.g. live animals and plants, non-living such as stones, wood, models such as cut-outs, abacus, and specimens.
- ii. Two dimensional teaching learning materials: These include: graphs, diagrams, posters, maps, globes, illustrations, charts in pictorial or graphic, numeric or verbal material. They also include chalkboard, models, graphs, pictures, cartoons, printed materials: e.g. Text books, magazines, bulletins, information sheets, worksheets, flash cards and sentence cards.

Projected or power driven materials

- i. Audio aids: These include, radio, discs, cassettes
- ii. Audio-visual: These include television, sound, films and videos

Guidelines for effective use of instructional materials for teaching and learning:

- i. Select the material which is appropriate to the topic and lesson i.e. relevant in developing the competences of the lesson. This means that it should be able to portray the right facts, attitudes and values.
- ii. Ensure that the teaching-learning material should lead to the achievement of lesson objectives.
- iii. The material should be adapted to the level of understanding of the learners.
- iv. The teaching learning material should be reasonably sized, bold, and seen easily by the learners.
- v. It is important that the teachers provide enough time to use the instruction material to benefit the learners.
- vi. The learners should be able to handle the teaching-learning material.
- vii. Availability of the material in the school.
- viii. Some teaching-learning materials which may be expensive to produce can be improvised so that they are cost-effective and frequently used.

Qualities of good instructional materials

- i. They should be durable: Can be re-used for a long period of time; this will provide time for developing other instructional materials.
- ii. They should be attractive: Helps to capture the attention of the learners to manipulate and critically observe and generate basic learning points.
- iii. Material should be relevant: Convey correct accurate information; the content intended to be portrayed should be easily observed from the learning material.
- iv. Safe and easy to handle: Learners can easily manipulate the material without harm, or frustration.
- v. Suitable to the learners: Should suit their age, interest, and experience and ability level of the learners.

EDUCATION LOCAL EXPERTISE CENTRE UGANDA

Education Local Expertise Centre Uganda (ELECU)
P. O. Box 5200 Kampala | Plot 3271, Kansanga off Ggaba Road, Kampala, Uganda
Tel: +256 414 501541 | Email: elecu@lec-uganda.org