

Pedagogy

Its importance
in education &
learning



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OTHER NOTES

PEDAGOGY

- QUESTIONS & ANSWERS
- PEDAGOGY IN SHS

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- QUESTIONS & ANSWERS

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- QUESTIONS & ANSWERS

PEDAGOGY IN PRIMARY & JHS

*BASED ON NTC CONTENT
AREAS FOR 2023 GTLE*

THE SOLUTIONS 0249966700/0240342212

CURRICULUM

- Concept of Curriculum and Syllabus
- The philosophy, the goal and objectives of the primary curriculum
 - Types of curriculum Standard based and Objective based
 - Components of the curriculum
 - Curriculum terminologies
 - Core competences

MEANING OF CURRICULUM

The origin of ‘Curriculum’ is Latin meaning ‘**course**’; derived from “**curro**” and “**curree**” – racecourse – meaning to run or move quickly. Simply, ‘Curriculum’ can be referred to as a set of course, related content and coursework offered at a school or university. When seen as prescriptive, a ‘curriculum’ could generally be a syllabus which specifies what topics that students should learn and understand and to what level to achieve a defined grade or standard.

A syllabus lists topics learners should study in a particular subject at school or college.

Over the years, however, some individuals have attempted to provide a precise definition of ‘Curriculum’. Notably among them are: John Kerr who defined curriculum as “***All the learning, which is planned and guided by the school, whether it is carried on in groups or individually, inside or outside the school.***” From this definition is the: 1. recognition that learning is planned and guided 2. appreciation of schooling, school and outside school practices including subjects and lessons.

Cronbleth (1992) sees curriculum as answering three fundamental questions of what knowledge, skills and values are most worthwhile? Why are they most worthwhile? How should the young acquire them? And for Tanner and Tanner (1980), curriculum is defined as “the planned and guided learning experiences and intended outcomes, formulated through the systematic reconstruction of knowledge and experiences under the auspices of the school, for the learners’ continuous and wilful growth in personal social competence”

In Ghana, two main types of curricula are in operation currently. These are the **standards-based curriculum and the objective-based curriculum**. The objective based curriculum is operational only at the Senior High and Senior High Technical Schools level.

BROAD, MIDWAY AND NARROW DEFINITIONS

In its broadest sense a curriculum may refer to all the courses offered, the experiences and the activities learned in a school.

In its midway definition, curriculum is defined as all the learning which is planned and guided by the school.

In its narrower sense a curriculum may also be referred to as a defined and prescribed course of studies, which students must fulfill in order to attain a certain level of education.

For example, **in this University, first year students are supposed to register a certain number of courses within the first year of the first semester.**

SOME BASIC DEFINITIONS

According to **Taba (1962)** “*curriculum is a way and manner of preparing young people to participate as productive members of our society*”

Kerr (1968) describes curriculum as *all the learning which is planned and guided by the school, whether it is carried in groups or individually, inside or outside of the school.*

Bishop (1985) considers curriculum as “*learning experiences to be organised by teachers within and outside the school, to enable learners to adopt positive attitudes to learning, to apply*

knowledge and skills and to develop their taste and a balanced sense of values”.

Tamakloe (1992) defined curriculum as “*a composition of a selection of socially valued knowledge, skills and attitudes which a learner/student is made to acquire through various forms of planning*”.

Themes that are important

This means that:

curriculum is an on-going or a continuous process

curriculum is not static but allows for change to take place

curriculum is restricted

curriculum seeks to educate individual

BASIC COMPONENTS OF THE SCHOOL CURRICULUM

In simple terms every school curriculum must at least have the following components; these are “**the what, the how, the when and the why**”. That is the;

Content: the subject matter (the what)

Methodology: the manner or method of instruction (the how)

Time frame: the order of instruction (the when)

Rationale: the goals, aims or objectives (the why)

Characteristics of the School Curriculum

- By nature curriculum is an educational activity.
- Curriculum is designed by the school and for the school. It responds to the changing needs of the society.
- Curriculum is a school activity but can also end up occurring outside the school. It is always meant to be a positive activity.
- Curriculum is a continuous process.

Determine the philosophy, the goal and objectives of the primary curriculum

Teaching Philosophy

This suggests that teachers create learning opportunities for learners to participate in the teaching process actively. For example, the BSC encourages teachers to:

- Use innovative, creative, and practical ways of teaching school subjects.
- Help create new knowledge and apply knowledge to solve problems in creative and innovative ways.

Learning Philosophy

Teaching all the subjects in the schools should be an active, contextualised process of constructing knowledge based on learners' experiences rather than merely acquiring knowledge that is put into no context. Learners are knowledge constructors who operate as researchers.

Teachers serve as facilitators by providing the enabling environment that promotes the construction of learners' knowledge based on their previous experiences. This makes learning more relevant to learners and leads to the development of critical thinkers and problem solvers. In this regard,

- teachers serve as facilitators by providing the enabling environment that promotes the construction of learners' knowledge based on their previous experiences
- teachers motivate learners to develop critical thinking and problemsolving skills
- learners take responsibility for their learning and actively engage in the learning process.

The Rationale for the Basic School Curriculum (BSC) (Standards-based Curriculum)

The rationale for developing the BSC is to promote and achieve quality teaching and learning in schools that will equip learners to develop the relevant knowledge, skills, competencies, values, and attitudes required of a global citizen. Apart from the general rationale for the BSC, there is the subject-specific rationale

- *Differentiate between the types of curriculum*

Standards-Based Curriculum

The Standards-Based Curriculum (SBC) ensures that the content of the curriculum is set to specific national or international standards. It specifies a series of skills, values, and competencies one needs to acquire and develop at specified stages of learning. For example, all children at a specified grade (e.g., P6) are supposed to be able to exhibit certain:

- knowledge (such as being able to read and write appropriately for that grade level)

- skills (performing manipulative skills in specified subjects)
- proficiency (achieving at least the expected minimum performance for a specific grade level) 3
- apply the knowledge and skills in other areas of learning or solve real-life problems

Simply, Standards-Based Curriculum places emphasis on what learners need to know, understand and be able to do.

Characteristics of the standards-based curriculum

- comprehensibility (broad range of standards to be acquired)
- developing in-depth ideas (in all subject areas)
- application of knowledge and understanding
- accountability oriented

Objective-Based Curriculum

These are broad national and international behaviours learners are expected to exhibit at the end of a learning session. Here are two examples:

- A teacher teaching numeracy in grade 6 may expect that learners will be able to do addition and subtraction of 4-digit numbers at the end of the lesson.
- In an English Language lesson on grammar, a teacher may expect learners to be able to identify a noun in a sentence.

Characteristics of the objective-based curriculum

- Be sustainable within a reasonable amount of time
- Sequentially appropriate

- Be developmentally appropriate

COMPONENTS OF THE CURRICULUM

Class/Year	Strand Number	Sub-strand Number	Content Standard Number	Learning Indicator Number
Strand 3: Grammar Usage Sub-Strand 1: Grammar				
B7	B8	B9	B10	
B7.3.1.1: Apply the knowledge of word classes and their functions in Communication.	B8.3.1.1: Apply the knowledge of word classes and their functions in Communication.	B9.3.1.1: Apply the knowledge of phrases and clauses and their functions in Communication.	B10.3.1.1: Apply the knowledge of phrases and clauses and their functions in Communication.	
B7.3.1.1.1. Demonstrate command and application of nouns in text.	B8.3.1.1.1. Demonstrate command of the functions of nouns in situational analysis	B9.3.1.1.1. Identify and use noun phrases accurately in context	B10.3.1.1.1. Use the noun clause accurately in context	

is shown below:



CURRICULUM TERMINOLOGIES

Strands are the broad areas/sections of subject content to be studied.

Sub-strands are the topics within each strand under which the content is organised.

Content standard refers to the pre-determined level of knowledge, skill and/or attitude that a learner attains by a set stage of education.

Learning Indicator is a clear outcome or milestone that learners must exhibit yearly to meet the content standard expectation.

Exemplar refers to support and guidance, which clearly explains the expected outcomes of an indicator.

Performance indicator: This involves stating the lesson application.

CORE COMPETENCES

CORE COMPETENCIES In using this curriculum, we hope that certain core competencies will be developed in learners to help them develop our country, Ghana. These competencies include:

Critical Thinking and Problem Solving (CP)

This skill develops learners' cognitive and reasoning abilities to enable them analyse and solve problems.

Critical thinking and problem-solving skill enable learners to draw on their own experiences to analyse situations and choose the most appropriate out of a number of possible solutions. It requires that learners embrace the problem at hand, persevere and take responsibility for their own learning.

Creativity and Innovation (CI)

Creativity and Innovation promote the development of entrepreneurial skills in learners through their ability to think of new ways of solving problems and developing technologies for addressing the problem at hand. It requires ingenuity of ideas, arts, technology and enterprise. Learners having this skill are also able to think independently and creatively.

Communication and Collaboration (CC)

This competence promotes in learners the skills to make use of languages, symbols and texts to exchange information about themselves and their life experiences. Learners actively participate in sharing their ideas. They engage in dialogue with others by listening to and learning from them. They also respect and value the views of others including people they perceive to be different from them.

Cultural Identity and Global Citizenship (CG)

This competence involves developing learners to put country and service foremost through an understanding of what it means to be active citizens. This is done by inculcating in learners a strong sense of social and economic awareness. Learners make use of the knowledge, skills, competencies and attitudes acquired to contribute effectively towards the socioeconomic development of the country and on the global stage. Learners build skills to critically identify and analyse cultural and global trends that enable them to contribute to the global community.

Personal Development and Leadership (PL)

This competence involves improving self-awareness and building self-esteem. It also entails identifying and developing talents, fulfilling dreams and aspirations. Learners are able to learn from mistakes and failures of the past. They acquire skills to develop other people's needs. It involves recognising the importance of values such as honesty and empathy and seeking the well-being of others.

Personal development and leadership enable learners to distinguish between right and wrong. The skill helps them to foster perseverance, resilience and self-confidence. It helps them acquire the skill of leadership, self-regulation and responsibility necessary for lifelong learning.

Digital Literacy (DL)

Digital Literacy involves developing learners to discover, acquire, and communicate through ICT to support their learning. It also makes them use digital media responsibly

Teaching Methods

- Two main types of teaching methods: Teacher-centered and Child-centered
 - Factors that influence the choice of teaching methods
 - Complementary role of the two main methods of teaching
- Examples of learner- centered method of teaching such as role play, dramatization, group method, etc.
- examples of teacher- centered method of teaching such as lecture method, demonstration

The term **teaching method** refers to the general principles, pedagogy and management strategies used for classroom instruction.

Your choice of teaching method depends on what fits you —

your educational philosophy,

classroom demographic,

subject area(s)

school mission statement.

Choosing an instructional method then requires the instructor to consider at least three FACTORS

- 1) the learning objectives, to make sure the method is appropriate,
- 2) the nature of the materials and
- 3) how we want students to interact with this information.

Teacher-Centered Approach to Learning

Taken to its most extreme interpretation, teachers are the main authority figure in a teacher-centered instruction model. **Students are viewed as “empty vessels”** who passively receive knowledge from their teachers through lectures and direct instruction, with an end goal of positive results from testing and assessment. In this style, teaching and assessment are viewed as two separate entities; student learning is measured through objectively scored tests and assessments.

A teacher-centered learning environment is one in which:

- The focus is primarily on the instructor
- The teacher chooses the topics
- The teacher talks and the students listen
- What the teacher knows about the subject takes priority
- Students work alone/independently
- The teacher monitors and corrects student work as needed
- The teacher is solely responsible for answering students' questions
- The teacher evaluates students' performance and evidence of learning
- The classroom is typically quiet

examples of teacher- centered method of teaching such as lecture method, demonstration

Team Teaching:

The word ‘team’ is associated when two or more than two members join together to achieve some specific objectives. In team teaching too, two or more than two teachers with special abilities, competencies and specialization join together and teach in a classroom.

According to R.A. Singer (1964), team teaching may be defined “as an arrangement whereby two or more teachers cooperatively plan, teach and evaluate one or more class groups in an appropriate and agreed teaching plan in given length of time, so as to take advantage of specific competencies of the team members”.

Demonstration Method: Demonstration method works on the principle of activity centeredness and, to some extent, on child centeredness. Therefore, it is better off than the lecture method. Demonstration method is based on performing some activities or experiments in front of learners and learners minutely observe them.

Demonstration method has dual purposes. One, it is in accordance to the maxim of teaching concrete to abstract **i.e. concepts**, which are abstract in nature and harder to understand, can be demonstrated through an activity or experiment, which would facilitate the teacher to explain them easily and learners too can internalize them effectively. Second, learners can replicate the same demonstration where they can also understand concepts by doing. Moreover, demonstration helps learners develop their *motor skills*.

Lecture Method:

The word ‘lecture’ is derived from Latin word ‘**lectus**’, which means “**that which is read.**” It wasn’t until the 16th century that the word was used to describe oral instruction given by a teacher in front of an audience of learners. Presently, teacher uses lecture method that involves, primarily, an oral presentation given him/her to a group of learners.

Many lectures are supplemented by some sort of *visual aid, such as a slideshow, a word document, an image, or a film*. Some teachers may even use a whiteboard or a chalkboard to emphasize important points in their lectures.

It is the most conventional teacher centered instructional method where teacher transmits the knowledge and learners are the **passive recipients** of it. All the activities related to teaching-learning process in the classroom and beyond the classroom, are under the control of the teacher. These activities are planned and rigid in nature. Lecture method is generally applicable to learners who are studying in higher grades and above average. Average and below average learners feel disinterested in transaction of the content through lectures. This method fits into the contents wherein teacher has to extensively focus on **narration, memorization and information**. It is a method of instruction which is suitable to a classroom of large size wherein large syllabus is to be covered in limited time. It is not suitable to contemporary multicultural classrooms as it does not emphasize two cardinal principles of teaching activity and child-centeredness. As teacher, one should refrain from using lecture method in schools, especially up

to secondary level, as it is the stage where child learns better through concrete experiences rather than through mere abstract presentations.

Student-Centered Approach to Learning

While teachers are still an authority figure in a student-centered teaching model, teachers and students play an equally active role in the learning process.

The teacher's primary role is to *coach and facilitate student learning* and overall comprehension of material, and to measure student learning through both formal and informal forms of assessment, like group projects, student portfolios, and class participation.

In the student-centered classroom, teaching and assessment are connected because student learning is continuously measured during teacher instruction

A student-centered learning environment might look like one in which:

- The focus is shared by both the students and their teacher
- Students may have some choice in the topics they cover
- The instructor models a concept or challenge, then invites the students to explain or demonstrate it back to the class
- The students interact with their teacher and one another during the lesson
- Topics are delivered in familiar, everyday language students might use themselves; new vocabulary might get its own lesson
- Students work in pairs, in groups or alone depending on the activity
- The instructor refrains from constant monitoring but provides feedback or corrections when questions arise
- Students attempt to answer each other's questions, using their teacher as an information resource or facilitator
- Students evaluate their own learning alongside the teacher/instructor
- The classroom is busy and filled with energy

LEARNING-CENTRED PEDAGOGY

The learner is at the centre of learning. At the heart of the curriculum is an emphasis on learning progression and improvement of learning outcomes for Ghana's young people with a focus on the **4Rs – Reading, wRiting, aRithmetic and cReativity**.

It is expected that at each curriculum phase, learners would be offered the essential learning experiences to progress seamlessly to the next phase. Where there are indications that a learner is not sufficiently ready for the next phase a compensatory provision through differentiation should be provided to ensure that such a learner is ready to progress with his/her cohort. At the primary school, the progression phases are: pre-primary (KG1 – 2), primary phases (B1 – B3 and B4 to B6).

The curriculum encourages the creation of a learning-centred classroom with the opportunity for learners to engage in meaningful “**hands-on**” activities that bring home to the learner what they are learning in school and what they know from outside of school.

The learning centred classroom is a place for the learners to discuss ideas and through the inspiration of the teacher actively engage in looking for answers through working in groups to solve problems. This also includes researching for information and analysing and evaluating the information obtained. The aim of the learning-centred classroom approach is to develop learner autonomy so that learners can take ownership of their learning. It provides the opportunity for deep and profound learning to take place.

The teacher should create a learning atmosphere that ensures:

- Learners feel safe and accepted.
- Learners are given frequent opportunities to interact with varied sources of information, teaching and learning materials and ideas in a variety of ways.
- The teacher assumes the position of a facilitator or coach who: Helps learners to identify a problem suitable for investigation via project work.
- Problems are connected to the context of the learners' world so that it presents authentic opportunities for learning. xiv © NaCCA, Ministry of Education 2019
- Subject matter around the problem, not the discipline.

- Learners responsibly define their learning experience and draw up a plan to solve the problem in question.
- Learners collaborate whilst learning.
- Demonstrate the results of their learning through a product or performance.

It is more productive for learners to find answers to their own questions rather than for teachers to provide the answers and their opinions in a learning centred classroom

Teaching –learning methods that are child –centred.

Below are a number of teaching –learning methods that promote learner centred learning

Asking questions	Role play/Drama	teaching, Teaching with
Discussions Debate Group	Simulation, etc. discovery /	archival, botanical, and
work Homework Guided	inquiry learning, problem-	museum collections
learning Individual	based learning, project-	pair work
assignment Practical work	based learning, case-based	

Differentiation and Scaffolding

- Explain the concept differentiated learning and scaffolding.
- Differentiate between the various types of differentiated learning.
 - Outline the types of scaffolding.
- Demonstrate understanding and the use of differentiated instructional approaches in diverse learning environment.
 - Identify the various learning styles of learners.
- Analyze Lev Vygotsky’s theory and its implication in the classroom.

Differentiation and Scaffolding

Differentiation is a process by which differences (learning styles, interest and readiness to learn) between learners are accommodated so that all learners in a group

have the best chance of learning. Differentiation could be by content, tasks, questions, outcome, groupings and support. Differentiation as a way of ensuring each learner benefits adequately from the delivery of the curriculum can be achieved in the classroom through

(i) Task (ii) Support from the Guidance and Counselling Unit and (iii) Learning outcomes.

Differentiation by task involves teachers setting different tasks for learners of different abilities. Example: in sketching the plan and shape of their classroom some learners could be made to sketch with free hand while others would be made to trace the outline of the plan.

Differentiation by support involves the teacher giving needed support and referring weak learners to the Guidance and Counselling Unit for academic support.

Differentiation by outcome involves the teacher allowing learners to respond at different levels. Weaker learners are allowed more time for complicated tasks.

FOUR WAYS TO DIFFERENTIATE INSTRUCTION

According to Tomlinson, teachers can differentiate instruction through four ways: 1) content, 2) process, 3) product, and 4) learning environment.

1. Content

As you already know, fundamental lesson content should cover the standards of learning set by the school district or state educational standards. But some students in your class may be completely unfamiliar with the concepts in a lesson, some students may have partial mastery, and some students may already be familiar with the content before the lesson begins.

What you could do is differentiate the content by designing activities for groups of students that cover various levels of **Bloom's Taxonomy** (a classification of levels of intellectual behavior going from lower-order thinking skills to higher-order thinking skills). The six levels are: remembering, understanding, applying, analyzing, evaluating, and creating.

Students who are unfamiliar with a lesson could be required to complete tasks on the lower levels: remembering and understanding. Students with some mastery could be asked to apply and analyze the content, and students who have high levels of mastery could be asked to complete tasks in the areas of evaluating and creating.

Examples of differentiating activities:

- Match vocabulary words to definitions.
- Read a passage of text and answer related questions.
- Think of a situation that happened to a character in the story and a different outcome.
- Differentiate fact from opinion in the story.
- Identify an author's position and provide evidence to support this viewpoint.
- Create a PowerPoint presentation summarizing the lesson.

2. Process

Each student has a preferred learning style, and successful differentiation includes delivering the material to each style: visual, auditory and kinesthetic, and through words. This process-related method also addresses the fact that not all students require the same amount of support from the teacher, and students could choose to work in pairs, small groups, or individually. And while some students may benefit from one-on-one interaction with you or the classroom aide, others may be able to progress by themselves. Teachers can enhance student learning by offering support based on individual needs.

Examples of differentiating the process:

- Provide textbooks for visual and word learners.

- Allow auditory learners to listen to audio books.
- Give kinesthetic learners the opportunity to complete an interactive assignment online.

3. Product

The product is what the student creates at the end of the lesson to demonstrate the mastery of the content. This can be in the form of tests, projects, reports, or other activities. You could assign students to complete activities that show mastery of an educational concept in a way the student prefers, based on learning style.

Examples of differentiating the end product:

- Read and write learners write a book report.
- Visual learners create a graphic organizer of the story.
- Auditory learners give an oral report.
- Kinesthetic learners build a diorama illustrating the story.

4. Learning environment

The conditions for optimal learning include both physical and psychological elements. A flexible classroom layout is key, incorporating various types of furniture and arrangements to support both individual and group work. Psychologically speaking, teachers should use classroom management techniques that support a safe and supportive learning environment.

Examples of differentiating the environment:

- Break some students into reading groups to discuss the assignment.
- Allow students to read individually if preferred.
- Create quiet spaces where there are no distractions.

SCAFFOLDING

in education refers to the use of a variety of *instructional techniques* aimed at moving learners progressively towards stronger understanding and ultimately greater independence in the learning process.

It involves breaking up the learning task, experience or concepts into smaller parts and then providing learners with the support they need to learn each part. The process may require a teacher assigning an excerpt of a longer text to learners to read and engaging them to discuss the excerpt to improve comprehension. The teacher goes ahead to guide them through the keywords/ vocabulary to ensure learners have developed a thorough understanding of the text before engaging them to read the full text.

Common scaffolding strategies available to the teacher are:

1. give learners a simplified version of a lesson, assignment, or reading, and gradually increase the complexity, difficulty or sophistication over time.
2. describe or illustrate a concept, problem, or process in multiple ways to ensure understanding;
3. give learners an exemplar(s): or model of an assignment they will be asked to complete;
4. give learners a vocabulary lesson before they read a difficult text;
5. describe the purpose of a learning activity clearly and the learning goals they are expected to achieve; and
6. describe explicitly how the new lesson builds on the knowledge and skills learners were taught in a previous lesson

THE TYPES OF SCAFFOLDING you use in your classroom will look different based on your goals, lesson and students. Generally, scaffolding supports fall into three categories:

1. **Sensory** — Use physical and visual elements, manipulatives and visual aids together. Sensory scaffolding also includes modeling in front of the class, since images and gestures help paint a whole picture of the lesson.
2. **Graphic** — Mind maps, graphic organizers and anchor charts are classroom staples, but they can also help students draw relationships between abstract concepts. Guide students through how to read them for maximum effectiveness.
3. **Interactive** — Collaborative learning is an important part of the classroom, whether it’s between teachers and students or among students. Strategies like “think-pair-share” and jigsaw groups (where small groups are responsible for learning and teaching part of the lesson) are tried-and-true methods for effective collaboration.

According to one study, using a range of different supports in your instruction can help students, especially English language learners, effectively engage with grade-level objectives and content.

According to Iris Tabak: Distributed Scaffolding are of three types

1. Differentiated scaffolding
2. Redundant scaffolding
3. Synergetic scaffolding

Differentiated scaffolding – The basic type which can be most effectively used to recall the previously learnt or make connections between the previously learnt concepts. This can be an activity designed which involves all the previously learned or picture based. Some numeracy games or vocab games, poems or literary activities can also be used in this case.

Redundant scaffolding – The current learning topic or the learning outcome focus should be provided with a number of support work which may include document reference, research work, project work, assignments on the same topic of learning.

Synergetic scaffolding – A complete view of the topic to be provided can be given using different type of approach to the same problem. Changing variables is one such approach. Giving problems which may ultimately lead to same solution is also one approach. For example – Increase in health issues during rain, Change in colour of marble wall, change in drinking water colour, skin burns during rain can all focus on one major issue of Pollution

- *Identify The Various Learning Styles Of Learners.*

1. Visual learners

How to recognize visual learners in your class: Someone with a preference for visual learning is partial to seeing and observing things, including pictures, diagrams, written directions and more. This is also referred to as the “spatial” learning style. Students who learn through sight understand information better when it’s presented in a visual way. These are your doodling students, your list makers and your students who take notes.

How to cater to visual learners: The whiteboard or smartboard is your best friend when teaching these types of learners. Give students opportunities to draw pictures and diagrams on the board, or ask students to doodle examples based on the topic they’re learning. Teachers catering to visual learners should regularly make handouts and use presentations. Visual learners may also need more time to process material, as they observe the visual cues before them. So be sure to give students a little time and space to absorb the information.

2. Auditory learners

How to recognize auditory learners in your class: Auditory learners tend to learn better when the subject matter is reinforced by sound. These students would much rather listen to a lecture than read written notes, and they often use their own voices to reinforce new concepts and ideas. These types of learners prefer reading out loud to themselves. They aren’t afraid to speak up in class and are great at verbally

explaining things. Additionally, they may be slower at reading and may often repeat things a teacher tells them.

How to cater to auditory learners: Since these students generally find it hard to stay quiet for long periods of time, get your auditory learners involved in the lecture by asking them to repeat new concepts back to you. Ask questions and let them answer. Invoke group discussions so your auditory and verbal processors can properly take in and understand the information they're being presented with. Watching videos and using music or audiotapes are also helpful ways of learning for this group.

3. Kinesthetic learners

How to recognize kinesthetic learners in your class: Kinesthetic learners, sometimes called tactile learners, learn through experiencing or doing things. They like to get involved by acting out events or using their hands to touch and handle in order to understand concepts. These types of learners might struggle to sit still and often excel at sports or like to dance. They may need to take more frequent breaks when studying.

How to cater to kinesthetic learners: The best way teachers can help these students learn is by getting them moving. Instruct students to act out a certain scene from a book or a lesson you're teaching. Also try encouraging these students by incorporating movement into lessons: pacing to help memorize, learning games that involve moving around the classroom or having students write on the whiteboard as part of an activity.

Once kinesthetic learners can physically sense what they're studying, abstract ideas and difficult concepts become easier to understand.

4. Reading/writing learners

How to recognize reading/writing learners in your class: According to the **VARK Modalities theory** developed by Fleming and Mills in 1992, reading/writing learners prefer to learn through written words. While there is some overlap with visual learning, these types of learners are drawn to expression through writing, reading articles or books, writing in diaries, looking up words in the dictionary and searching the internet for just about everything.

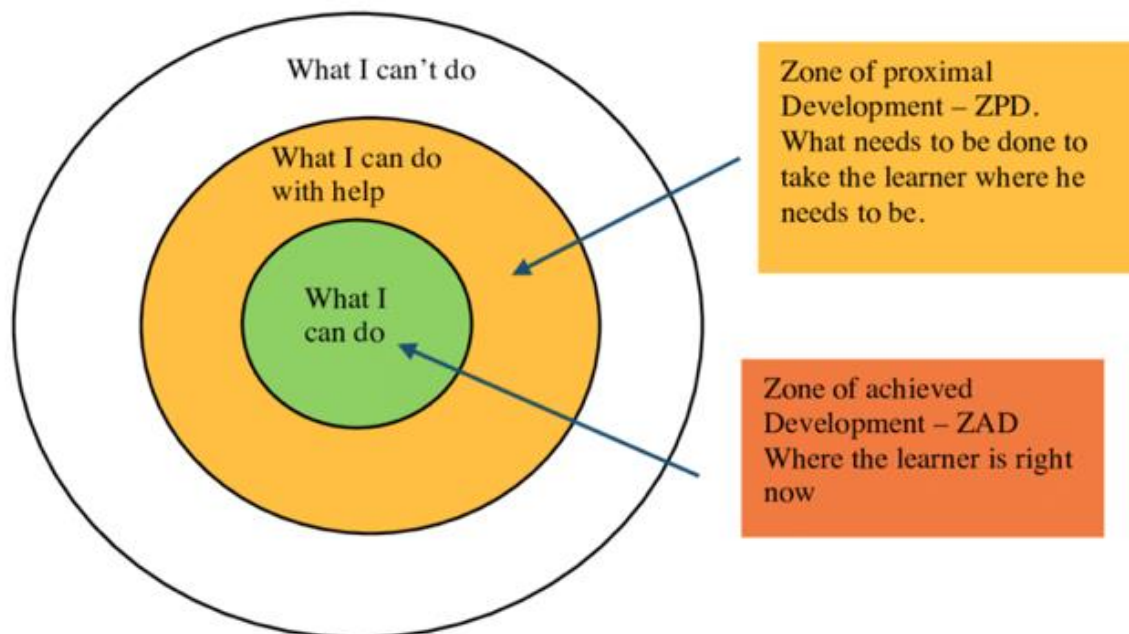
How to cater to reading/writing learners: Of the four learning styles, this is probably the easiest to cater to since much of the traditional educational system tends to center on writing essays, doing research and reading books. Be mindful about allowing plenty of time for these students to absorb information through the written word, and give them opportunities to get their ideas out on paper as well.

Embrace all types of learning

Understanding these different learning styles doesn't end in the classroom. By equipping students with tools in their early years, teachers are empowering them for their futures. Pinpointing how a child learns best can dramatically affect their ability to connect with the topics you're teaching, as well as how they participate with the rest of the class.

Vygotsky's Zone of Proximal Development and Scaffolding

Vygotsky created the concept of the zone of proximal development, often abbreviated as ZPD, which came to be a central part of his theory. *Language is the way that a child communicates with others after they are born and they continue to learn by interacting with those around them.* Building on his idea of social interaction as the basis for learning, he broached the value of a mentor or teacher in the life of a student.



[Vygotsky](#) declared some controversial statements that went against prominent educational research at the time. He dismissed the idea that there was no ideal age for learning and instead introduced ideal stages for learning, a similar opinion as Piaget. He also explained that the cognitive growth increased less for students with a higher intelligence than a lower intelligence when they entered school.

He coined this term relative achievement, a method that highlights the departure point of student learning and not just the end result. This led Vygotsky into the idea of the 'zone of proximal development,' as it assessed the change in cognitive development of students and not just the final outcome. Students benefit directly from the social interactions in class, and ideally, reach their learning potential with the help of their teacher.

Vygotsky consistently defines the zone of proximal development as the difference between the current level of cognitive development and the potential level of cognitive development. He maintains that a student is able to reach their learning goal by completing problem-solving tasks with their teacher or engaging with more competent peers. Vygotsky believed that a student would not be able to reach the same level of **learning by working alone**. As a student leaves his zone of current development, he travels through the zone of proximal development towards his learning goal.

The zone of proximal development consists of two important components: **the student's potential development and the role of interaction with others**. Learning occurs in the zone of proximal development after the identification of current knowledge. The potential development is simply what the student is capable of learning

Scaffolding

To help learners achieve independence, Vygotsky outlined **scaffolding as a tool for growth**. Learners complete small, manageable steps in order to reach the goal. Working in collaboration with a skilled instructor or more knowledgeable peers help students make connections between concepts.

As learners grow within their zone of proximal development and become more confident, they practice new tasks with the social support that surrounds them. Vygotsky maintains that learning occurs through purposeful, meaningful interactions with others.

How Vygotsky Impacts Learning

Many psychologists, including [Piaget](#) and [Bandura](#), have assessed the cultural influences on learning, however, only Vygotsky claims that they are inherently woven together. He felt that studies should be analyzing the individual within the society and not the individual itself.

Only then could you observe the level of growth, as it is social interaction itself that promotes mental development. While morals, values, and thoughts are believed to be influenced by society, the process of learning is not seen as something that is mimicked. Vygotsky outlined that interactions with others created growth by making connections between concepts. To summarize, Vygotsky's views on cognitive development can be grouped into four main points, outlined as follows:

- the relationship between the student and the teacher is central to learning;
- society and culture influence the attitudes and beliefs of a student towards learning and education;
- language is the primary tool used in the development of learning in children, including the transfer of sociocultural influences; and

- students benefit greatly in programs that are student-led, as they can use the social interaction to grow towards their potential level of development.

Curriculum – Learning goals and curriculum outlines should be designed around social interaction between students and tasks.

Instruction – The idea of scaffolding is the basis of instruction. Students can achieve their learning potential with guided instruction from their teacher. The teacher constantly reassesses the levels of achievement of the student and creates the next task as a building block to the goal. As an added benefit, the student also learns problem-solving skills from performing leveled tasks on their own.

Assessment – Evaluations are catered to each student based on their zone of proximal development. As teachers strive to see the potential level of cognitive development in all students, assessments must cover a range of abilities. Some students may achieve a higher level with support from their teacher than others.

On a more practical note, many wonder how this type of learning can be implemented in schools. Scaffolding seems to be a cycle – the teacher is constantly evaluating the progress of a student throughout a learning activity and consistently responding according to their needs.

This means that the teacher adjusts the difficulty of the tasks and learning goals in order for the student to meet the expectations. The zone of proximal development indicates the level of task that the student can accomplish independently, which, in turn, demonstrates the actual activity that can be accomplished with guided support from the teacher. As they create learning goals, teachers must keep in mind the fact that each student will have unique personality traits that will affect their zones.

To summarize, students require many opportunities to demonstrate their point of learning in order for the teacher to create the next steps and support each need. The gradual release of responsibility, which we know as scaffolding, allows students to gain independence in learning tasks as they reach their goals. The teacher begins by offering a strong presence and close guidance; this may include demonstrations, facilitating activities, or explicit teaching of ideas.

As the student moves through the zone of proximal development towards the goal, the teacher gradually releases control to the student as they approach their level of

potential learning. The tasks become progressively more difficult as the student gains more knowledge and comes closer to reaching their potential level of cognitive development. Some suggest that all tasks should be on the higher end towards the optimal level of the zone of proximal development in order to main the interest of the student. Scaffolding is used as a tool to achieve the potential learning outcomes of a student.

The question remains then: is the theoretical idea of zones of proximal development really that different from what experienced teachers do in the classroom? Vygotsky's theory is centered on the idea that social interaction is critical to cognitive development. With the exception of some large classes, students actively engage with their teacher and with each other. Collaborating with peers is encouraged but cannot be over-used, as it may actually cause stagnant growth in some cases. Additionally, the teacher is the most educated on the learning process, automatically assessing many factors related to the student's potential growth.

Language tasks in education are still the best indicator in cognitive development. Such activities allow chain reactions to occur that begin with solid communication skills, lead to clarification of inner speech and continues with growth in thought patterns. However, one must not view language activities as exclusive: it does not mean that a student possesses a low level of cognitive ability if they are unable to orally express themselves.

Language is complex, and some do not grasp the subtle meanings present in communication. Other types of intelligence, such a musical and bodily-kinesthetic, are not necessarily compatible with learning-centered on language. It is important to note, however, that early development of language offers an advantage to children in our society, as it offers favoritism towards other educational skills.

Currently, the value of educational software has been inconsistent in relation to Vygotsky's theory. As there is such a broad variance in computer-based programs available, it is challenging to evaluate its effect on learning. Social interaction looks different when on a computer; now students may be interacting with a human-like software program. Some artificial intelligence systems offer great responses to questions and misunderstandings, but others are not as advanced. There is great hope that a sophisticated program could assess a student's zone of proximal development

and respond appropriately, but for now, the wide range of programs available are too unpredictable.

Challenges to scaffolding in education

Even though scaffolding has many benefits for learners, there may also be some [challenges](#) in a classroom setting.

To properly scaffold, the teacher needs to have an understanding of a student's ZPD to make sure the student works at an appropriate level.

Scaffolding works best when a student is working within their skill level. If they're working above their ZPD, they won't benefit from scaffolding.

The following are also potential problems in the classroom when it comes to scaffolding:

- It can be very time consuming.
- There may not be enough instructors for each student.
- Instructors need to be properly trained to get the full benefit.
- It's easy to misjudge a student's ZPD.
- Teachers need to take an individual student's need into account.

INCLUSION

- Inclusion
 - Challenges of inclusive practices
- Approaches and strategies in managing inclusive classroom
 - Importance of inclusive

Inclusion

The constitution of Ghana entitles all learners to be provided with quality education (MoE, 2015). Inclusive Education ensures access and learning for all learners, especially those disadvantaged (MoE, 2015; United Nations, 2016).

The guiding principle of inclusive education is that schools should accommodate all children regardless of physical, intellectual, social, emotional, linguistic, or other conditions. This should include disabled and gifted children, street and working children, children from remote or nomadic populations, 20 children from linguistic, ethnic, or cultural minorities and children from other disadvantaged or marginalised areas or groups.

Inclusive education also takes into consideration gender issues such as the unfair treatment of females or males based on false assumptions about what they can or cannot do. This refers to the socially constructed differentiated roles assigned to both sexes, whereby both men and women are expected to conform to and perpetuate the roles and behaviours that have been assigned to them.

Activities that promote inclusive education, teaching, and learning

1. Placing learners in mainstream classes with appropriate support
 2. Changes in content, teaching methods, and strategies for teaching (Using Gender Equality and Social Inclusion (GESI) responsive pedagogy)
 3. Flexibility in assessment (content, process, environment, and output)
 4. Whole systems approach: with the support of education ministries
 5. Whole school approach: with the support of school leadership
 6. Developing positive attitudes toward all learners
 7. Removing all barriers to learning and participation (visual, hearing, audiovisual support)
- eTC

The need for inclusive education

1. Learners educated in inclusive settings are more likely to have learner engagement, make friends, and have fewer challenging behaviours (Bui et al., 2010).
2. Learners with disabilities have the greatest access to the general education curriculum when attending general education classes (Ryndak et al., 2014; Wehmeyer & Shogren, 2017).
3. Learners with intellectual disabilities and autism make more academic progress in inclusive classrooms than in segregated (Kurth & Mastergeorge, 2012).
4. Learners without disabilities made comparable or greater gains in literacy and numeracy when taught in inclusive classes (Waldron, Cole, & Majid, 2001)

Challenges in Inclusive Education

While the benefits of inclusive education are evident, there are several challenges that hinder its effective implementation:

Limited Teacher Training and Support:

One of the primary challenges in inclusive education is the lack of comprehensive training and support for teachers. Teachers require specialized knowledge and skills

to effectively meet the diverse needs of students. Insufficient training can lead to inadequate instructional strategies and limited understanding of individual students' needs, thus hindering their progress.

Lack of Accessible Resources and Infrastructure

Another significant challenge is the lack of accessible resources and infrastructure. Schools often lack assistive technologies, inclusive learning materials, and appropriate physical accommodations, such as ramps or elevators. Without these resources, students with disabilities may face barriers to learning and participation.

Attitudinal Barriers and Stereotyping

Attitudinal barriers and stereotypes present substantial obstacles to inclusive education. Prejudices and misconceptions about students with disabilities can result in low expectations, discrimination, and exclusion. It is crucial to address these attitudes and promote inclusive mindsets among educators, students, and the community.

Inadequate Collaboration and Communication

Inclusive education requires effective collaboration and communication among various stakeholders, including teachers, support staff, parents, and community members. However, limited collaboration and communication between these groups can impede the provision of individualized support and hinder the progress of students with diverse needs.



Inclusive is such a quality of action that allows equal access to opportunities and resources for people who would otherwise be excluded or marginalized, such as those with physical or mental disabilities or members of other minority groups. |

Image: UNICEF

Overcoming Challenges in Inclusive Education

To overcome the challenges mentioned above, it is essential to implement the following strategies:

Enhanced Teacher Training and Professional Development:

To address the challenge of limited teacher training and support, it is crucial to invest in comprehensive and ongoing professional development programs. Teachers should receive training on inclusive teaching practices, differentiated instruction, and strategies for supporting diverse learners. Professional development opportunities can include workshops, seminars, online courses, and peer collaboration. By equipping teachers with the necessary skills and knowledge, they can effectively meet the needs of all students in inclusive classrooms.

Provision of Accessible Resources and Infrastructure

To tackle the issue of limited accessible resources and infrastructure, schools and educational institutions must prioritize the provision of inclusive learning materials, assistive technologies, and physical accommodations. This can include accessible textbooks, digital learning platforms, Braille materials, sign language interpreters, and adaptive devices. Additionally, schools should ensure that physical infrastructure is designed to be inclusive, with features such as ramps, accessible restrooms, and sensory-friendly spaces. By investing in these resources and infrastructure, students with disabilities can fully engage in the learning process.

Promoting Inclusive Attitudes and Awareness

Addressing attitudinal barriers and stereotypes requires a comprehensive approach. Schools should implement awareness campaigns, training sessions, and workshops to promote inclusive attitudes and understanding among educators, students, and the wider community. Encouraging empathy, respect, and acceptance can help break

down barriers and create an inclusive culture within the educational environment. It is crucial to foster an environment where diversity is celebrated, and differences are seen as strengths rather than limitations.

Encouraging Collaboration and Communication

Effective collaboration and communication are vital for successful inclusive education. Schools should establish collaborative structures, such as multidisciplinary teams, where educators, support staff, parents, and community members work together to develop individualized plans and support strategies for students. Regular communication channels, including parent-teacher conferences, meetings, and digital platforms, should be established to ensure open dialogue and shared decision-making. By fostering collaboration and communication, a strong support network can be created, facilitating the holistic development of all students.

Successful Inclusive Education Models

Several inclusive education models have proven successful in promoting equal opportunities for all students:

The Inclusion Model: A Whole-School Approach

The inclusion model involves creating an inclusive environment throughout the entire school. It emphasizes collaboration, shared responsibility, and the provision of support for all students. In this model, students with disabilities are integrated into general education classrooms, and additional support is provided through co-teaching, specialized instruction, and accommodations. This approach promotes positive social interactions, builds friendships, and fosters a sense of belonging among all students.

The Co-Teaching Model: Collaboration in Action

Co-teaching involves two or more educators working together to deliver instruction in the same classroom. One teacher may have expertise in special education, while the other specializes in general education. By sharing responsibilities, co-teachers can effectively meet the diverse needs of students. This model promotes

collaboration, maximizes student engagement, and provides individualized support within the general education setting.

The Individualized Education Program (IEP) Model

The Individualized Education Program (IEP) model involves developing individualized plans for students with disabilities. The IEP outlines specific goals, accommodations, and support services tailored to each student's unique needs. This model ensures that students receive personalized attention and support, enabling them to access the curriculum and make meaningful progress.

The Role of Parents and Communities in Inclusive Education

Parents and communities play a crucial role in supporting inclusive education:

Parental Engagement and Advocacy

Parents should be actively involved in their child's education and be empowered to advocate for their rights. Schools should establish strong partnerships with parents, involving them in decision-making processes, and providing support and resources to enhance their understanding of inclusive education. Parents can also participate in workshops and training sessions to learn about inclusive practices and strategies to support their child's learning at home. By fostering a collaborative relationship between parents and educators, the educational experience of students can be greatly enhanced.

Community Support and Partnerships

Communities play a vital role in creating an inclusive educational environment. Local organizations, businesses, and community members can contribute by providing resources, mentorship programs, and inclusive recreational activities. Collaborating with community organizations can also help in raising awareness, challenging stereotypes, and promoting inclusive attitudes. By involving the community in inclusive education efforts, a supportive network can be established that benefits all students.

Promoting Policy Changes and Advocacy Efforts

To promote inclusive education on a broader scale, it is essential to advocate for policy changes and allocate sufficient resources:

Policy Changes

Advocacy efforts should focus on influencing policy changes at the national and local levels. Policies should prioritize inclusive education and provide guidelines for the implementation of inclusive practices in schools. These policies should emphasize the rights of students with disabilities and outline strategies for teacher training, resource allocation, and support services. By advocating for inclusive policies, we can create a legal framework that supports and safeguards the rights of all learners.

Advocacy Organizations

Collaborating with advocacy organizations that champion inclusive education can amplify efforts for change. These organizations play a crucial role in raising awareness, lobbying for policy reforms, and providing support and resources to educators, parents, and communities. By joining forces with advocacy organizations, individuals and educational institutions can contribute to a broader movement towards inclusive education.

LESSON PLAN

- Components of the lesson plan
- Measureable and achievable objectives
 - Structure of the lesson plan
 - Relevance of a lesson plan

DEFINITIONS OF SYLLABUS, SCHEME OF LEARNING AND LESSON PLAN

- **A syllabus** lists topics learners should study in a particular subject at school or college.
- **A scheme of learning** is a guideline that defines the structure and content of an academic course and maps out clearly how resources (e.g. books, equipment, time) and class activities will be utilised or implemented.
- **A lesson plan** is a teacher’s detailed description of the course of teaching and learning for a lesson.

YEARLY SCHEME OF LEARNING (BASIC)

WEEK NUMBER	TERM 1	TERM 2	TERM 3
1			
2			
3			

TERM SCHEME OF LEARNING

WEEK NUMBER	STRAND	SUB - STRAND	CONTENT STANDARD	INDICATOR	RESOURCES
1					
2					

WEEKLY SCHEME OF LEARNING			
WEEKENDING:		PERIOD	SUBJECT
DURATION:	REFERENCE:	STRAND	
CLASS:	CLASS SIZE:	SUB -STRAND:	
CONTENT STANDARD:	INDICATOR	LESSON:	
PERFORMANCE INDICATOR			CORE COMPETENCIES:
TEACHING LEARNING RESOURCES:			
KEYWORDS:			
DAYS	PHASE 1: STARTER Introduction (Preparing the brain for learning)	PHASE 2: MAIN (New Learning including Assessment and lesson development)	PHASE 3: REFLECTION /Plenary (Learner and Teacher)
MONDAY			
TUESDAY			
WEDNESDAY			
THURS			
FRIDAY			

Relationship among curriculum, syllabus, scheme of learning and learning plan

According to Tamakloe et al. (1996), there are relationships among instructional programmes (syllabus), preparing a scheme of work and drawing up lesson plans. Thus, a scheme of work guides a lesson plan; the syllabus guides a scheme of work; and the national curriculum guides the syllabus. In Ghana, NaCCA, an agency of the Ministry of Education (MoE), is solely responsible for planning the syllabus, whilst classroom teachers oversee the implementation of the syllabus at all the various pre-tertiary levels of education.

Conditions necessary for effective lesson plan preparation

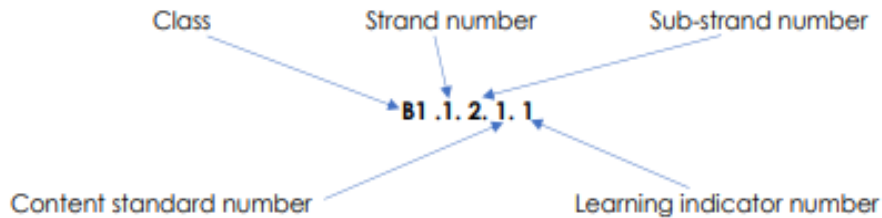
1. Good mastery of the subject matter of the topic to be taught.
2. Good revision of what is to be taught to refresh the teachers' memory and ensure accuracy.
3. The teacher must consult the scheme of work (learning) that contains the learning areas intended to be taught.
4. The teacher should consider the ages and ability of the learners when planning the lesson (learning).
5. Attention should be given to the choice of the channel for communicating with the learners about what is to be learned.
6. Availability of adequate, relevant, quality teaching-learning resources to enhance the teaching and learning process

A. TEMPLATE FOR PLANNING A WEEKLY LESSON PLAN-JHS

Week Ending							
Date:		Period:			Subject:		
Duration:					Strand:		
Class		Class Size:			Sub-Strand:		
Content Standard (Broad goals of the lesson)		Learning Indicator:			Lesson:		
Performance Indicator		Core Competencies: Creativity and Innovation, Communication and Collaboration, Personal Development and Leadership, Critical Thinking and Problem Solving, Digital Literacy, Cultural Identity and Global Citizenship.					
Teaching Learning Resource (TLR)							
Keywords:							
Reference (s)							
DAY	Phase 1: Starter (Preparing the brain for learning)		Phase 2: Main (New Learning including assignment)		Phase 3: Plenary/Reflections (Learner and Teacher)		
	Learners'/ Teachers' Activities	Resource	Learners'/ Teachers' Activities	Resource	Learners'/ Teachers' Activities	Resource	
MONDAY							
TUESDAY							
WEDNESDAY							
THURSDAY							
FRIDAY							

Components of a Learning Plan

A unique annotation is used to label the class, strands, sub-strands, content standards and learning indicators in the curriculum for easy referencing.



Strands are the broad areas/sections of subject content to be studied. Sub-strands are the topics within each strand under which the content is organised.

Content standard refers to the pre-determined level of knowledge, skill and/or attitude that a learner attains by a set stage of education.

Learning Indicator is a clear outcome or milestone that learners must exhibit yearly to meet the content standard expectation.

Exemplar refers to support and guidance, which clearly explains the expected outcomes of an indicator.

Performance indicator: This involves stating the lesson application.

Core competencies The core competencies describe a body of skills teachers at all levels should seek to develop in their learners.

Critical thinking and Problem-solving (CP) This skill develops learners' cognitive and reasoning abilities to analyse and solve problems.

Creativity and Innovation (CI) Creativity and Innovation promote entrepreneurial skills in learners through their ability to think of new ways of solving problems and developing technologies for addressing the problem at hand.

Communication and Collaboration (CC) This competence promotes in learners the skills to use languages, symbols, and texts to exchange information about themselves and their life experiences.

Cultural identity and Global Citizenship (CG) This competence involves developing learners to put country and service foremost through understanding what it means to be active citizens.

Personal development and Leadership (PL) This competence involves improving self-awareness and building self-esteem. It also entails identifying and developing talents, fulfilling dreams and aspirations.

Digital Literacy (DL) Digital Literacy develops learners to discover, acquire and communicate through ICT to support their learning. It also makes them use digital media responsibly.

Phase 1: Starter (Preparing the brain for learning): A starter should stimulate curiosity and open-mindedness and prepare the brain for learning; these can be random and/or linked to the content standard. For example, random mental activities (fast-paced games) or reinforcement short activities.

Phase 2: Main (New Learning, including assignment): Activities to explore new learning content for a day (including at least 10 minutes where learners do problems or exercises alone or collaboratively in their exercise books and the teacher move around to monitor and check work (Please write the major ideas for each activity on the chalkboard for learners to copy into their books).

Phase 3: Plenary/Reflection's (Learner and Teacher): Reflect, recap on and consolidate the learning that has happened in the day's lesson

Relevance of Lesson Plan to teaching and learning

According to Larbi and Asare (2003), lesson plans:

1. Help plan the aspect of the curriculum to impart to a class during a lesson period
2. Facilitate the presentation of a lesson to learners systematically
3. Specify the instructional objectives to be achieved in a particular lesson
4. Organise complex materials into smaller and easier parts
5. Promotes the effective use of various teaching and learning materials to support the lesson presentation.
6. Help establish how learners' lessons will be assessed or evaluated.

Instructional Resources and the use of ICT

- Types of teaching learning resources
- Relevance of teaching learning resources
- Challenges faced in using teaching learning resources
 - Relevance and the use of ICT tools

Concept and Meaning

Teaching-learning resources are those resources what teachers use to assist learners to meet the expectations for learning defined by curriculum. We can also define these resources as materials used by a teacher to supplement classroom instruction or to stimulate the interest of learners. Obviously, teaching learning resources aid to retain more concepts permanently.

Also, learners can learn better when they are motivated properly through different teaching learning 85Teaching-Learning Resources resources. Here are few definitions, which will help you to understand the concept of teaching-learning resources:

Teaching learning resources are tools that classroom teachers use to help their learners learn quickly and thoroughly. A teaching aid can be as simple as a chalkboard or as complex as a computer program. Klaus (2010)

Teaching learning resources is a material which the teacher uses to facilitate the learning, understanding and acquisition of knowledge, concept, principles or skills by his learners. Tamakloe, Amedahe and Atta (2005)

Types of Teaching-Learning Resources To make the teaching-learning process effectual, so many resources are available. These resources are also known as teaching aids. We can categories these resources in different way as; *traditional teaching-learning resources & modern teaching-learning resources or audio teaching-learning resources/aids, visual teaching-learning resources/aids & audio-visual teaching-learning resources/aids*. The brief classification of these resources is as follows:

a. Audio Teaching-Learning Resources: Those resources which involve the sense of hearing are known as audio teaching-learning resources as; radio, tape recorder, audio CD, gramophone etc.

b. Visual Teaching-Learning Resources: Those resources which involve sense of vision are known as visual teaching-learning resources as; charts, pictures, models, real objects, flash-cards, maps, chalkboard, flannel board, bulletin board, overhead projector, slides etc.

c. Audio-Visual Teaching-Learning Resources: Those resources which involve the sense of vision with sense of hearing are known as audio-visual resources as; television, film strips, film projector, audio-video CD etc.

Relevance of teaching learning resources

i. Forgetting is an integral part of our memory. We all have tendency to forget. For memorizing and retaining any concept appropriate use of teaching learning resources are very effective.

ii. Teaching-learning resources also motivate the individual. If teacher is using these resources to clear any concept then because of motivation learners can learn better.

iii. In teaching-learning process, when a teacher uses these resources, learners use more than one sense organ. Uses of more sense organs make the learning permanent because these resources help to develop the proper mental image. Learners can learn any concept by using various senses like looking, hearing, touching, smelling and doing (schema).

iv. Through teaching-learning resources, the teacher clarifies the content more easily.

v. Teaching-learning resources make available direct experience to the learner which is helpful in learning.

vi. Interest is related to motivation and motivation is essential for learning. The teaching-learning resources make the environment interesting for the learners.

vii. In teaching; illustration with examples makes learning very successful. Teaching-learning resources provide absolute picture for conceptual thinking.

viii. Teaching-learning resources are also helpful in increasing the vocabulary of the learners.

ix. Teaching-learning resources also remove dullness from the classroom and make the classroom live and active. x. Teaching-learning resources are also helpful in time and money saving.

The results reveals that the challenges;

of using instructional materials are

- non-availability of materials,
- laziness of the teachers,
- lack of skill and strategies,
- financial constraint,
- lack of appropriate materials in textbook,
- time constraint,
- lack of support from authority

ICT has been integrated into this curriculum as a teaching and learning tool to enhance deep and independent learning. *Some of the expected outcomes that this curriculum aims to achieve through ICT use for teaching and learning are:*

- improved teaching and learning processes.
- improved consistency and quality of teaching and learning.
- increased opportunities for more learner-centred pedagogical approaches. xvi © NaCCA, Ministry of Education 2019
- improved inclusive education practices by addressing inequalities in gender, language, ability.
- improved collaboration, creativity, higher order thinking skills.
- enhanced flexibility and differentiated approach of delivery.

- **Relevance and the use of ICT tools**

The use of ICT as a teaching and learning tool is to provide learners access to large quantities of information online. It also provides the framework for analysing data to investigate patterns and relationships in a geographical context. Once pupils have made their findings, ICT can then help them organize, edit and present information in many different ways.

Learners need to be exposed to the various ICT tools around them including calculators, radios, cameras, phones, television sets and computer and related software like Microsoft Office packages – Word, PowerPoints and Excel as teaching and learning tools. The exposure that learners are given at the Primary School level to use ICT in exploring learning will build their confidence and will increase their level of motivation to apply ICT use in later years, both within and outside of education. ICT use for teaching and learning is expected to enhance the quality and learners' level of competence in the 4R

ICT tools in Education

ICT tools in education are a group of currently available technologies that enable more effective information sharing, changing how learners acquire knowledge and, in turn, how they interact with one another. ICT tools for teaching and learning include but not limited to the following: printers, desktop computers, laptops, tablets, projector, digital cameras, photocopier, pen drive, iPod, iPad, scanners, microphones, DVDs and CDs, Internet and e-mails, software (e.g., Word processors [e.g., MS Word], Spreadsheet [e.g., MS Excel], Presentation software [e.g., MS PowerPoint], etc.)

For instance, you use MS Word to prepare your lesson note(s), MS Excel to manage learners record and MS PowerPoint to present concepts to learners. In identifying and selecting ICT tools for teaching and learning, know what they are, who they can be used for, when should I use them, etc.

You are expected to cater for special needs learners when selecting an ICT tool. For instance, if you have a visually impaired learner in your class, you must make sure s/he has a bigger font size for test items.

Factors Affecting the Use of ICT and Multimedia

Although ICT and multimedia are very good resources for learning but most of schools and teachers are not using these tools to enhance the learning. These causes are as follows;

- Unavailability of infrastructural facilities
- Inadequate training or Lack of training
- Inadequate capital on the part of the individual
- Lack of time to spend on technology
- Cost of technology
- Negative perception of older people for multimedia and ICT
- Lack of power supply
- Lack of perceived economic or other benefits
- Lack of understanding of the value or possible benefits of multimedia facilities.
- Wrong choice of software or software inadequacy.

Classroom Management

- Concept of classroom management
- Maintaining discipline in the classroom
- Various seating arrangements
 - Behavior modification strategies
 - Time management

Classroom management may be defined as the process of organizing and controlling the physical and social environment in the classroom to achieve educational goals. It may also be defined as the efficient control and efficient use of available resources in the classroom to promote learning.

The physical environment includes tangible objects or physical entities like the teacher’s table and chair, pupils’ tables and chairs or desks, the chalkboard, duster, textbooks, audiovisual aids, wall charts and pictures, cupboards and cabinets, and the teacher and pupils. The teacher and pupils in a classroom constitute a social unit and the types of interactions between the teacher and pupils constitute the social environment.

Class management includes all the strategies that the teacher uses to bring harmony into the teaching and learning environment.

The teacher as a manager of his class performs some management functions. These include ***planning what to teach, how and when to teach***. This is done by preparing a lesson plan. The teacher also budgets for the material and human resources he will need in the teaching learning environment. He is also expected ***to organize by arranging, assembling and using the physical and human resources to achieve stated objectives***. He also ***controls by directing the teaching learning process from beginning to end until the set objectives are attained***. Finally the teacher performs the management function ***of problem solving by ensuring that the class environment is free of conflict and conducive for learning as well as helping individuals to deal with their personal, academic and social problems***.

To perform these functions the teacher must have competence in subject matter knowledge (content) and in action system knowledge (methodology). In addition to these he must have a positive, consistent and firm personality that will empower him to exercise the influence on his class to achieve his set objectives.

Elements of Effective Classroom Management

Classroom management systems include routine ways of managing instructional and behavioural interactions in the classroom. **Six key elements of effective classroom management are:**

- Planning
- Establishing usable rules
- Getting off on a good start
- Monitoring the classroom environment
- Keeping records efficiently
- Creating strategies for managing interruptions

IMPORTANCE OF MANAGING THE CLASSROOM

1. Good classroom management helps to promote discipline in the classroom to enhance teaching and learning.
2. It ensures harmony during the teaching and learning environment.
3. It again ensures healthy conditions under which classroom activities can be carried out effectively.
4. It again promotes the development of good behaviour and accepted patterns of life among peers.

5. Classroom management encourages the development of leadership skills among pupils.

6. Good classroom management again helps to monitor pupils' progress in the classroom.

- **Various seating arrangements**

Classroom seating arrangements play an important role in student learning, engagement levels, and the overall success of the class.

Seating can influence how comfortable students feel participating in activities as well as how much they focus on their work.

It's essential for any educator to consider how their classroom layout will affect their students before making a decision.

Why Classroom Seating Arrangements Matter

It's no secret that the way you arrange your classroom can have a big impact on student learning.

Research has shown that the seating arrangement in a classroom can influence everything from student engagement to academic achievement.

So, what are the best ways to arrange your classroom? Here are 8 popular seating arrangements and how they can benefit your students:

1. The U-Shape: this arrangement is great for large classes or classes that require a lot of group work. Students are seated around the perimeter of the room, facing each other. This allows for easy collaboration and encourages students to get up and move around the room without physical barriers.

2. The Horseshoe: Similar to the U-Shape, this arrangement also promotes collaboration and movement. Students are seated in a horseshoe formation around the front of the classroom. This arrangement is ideal for classes that require frequent group work or discussions.

3. The Semi-Circle: this arrangement is perfect for classes that involve a lot of lectures or presentations. Students are seated in a semi-circle around the front of the

room, facing the teacher. This arrangement allows everyone to easily see the presenter as well as take part in discussions or activities.

4. The Small Group: this arrangement is great for classes that require a lot of group work. Students are grouped in small clusters around the perimeter of the room, facing each other. This allows for easy monitoring of student discussion while still encouraging collaboration.

5. The Rows: this arrangement is great for lectures or presentations. Students are seated in rows facing the teacher. This arrangement allows everyone to see and hear the presenter easily.

6. The Column: this arrangement is perfect for small classes or classes that require a lot of individual work. Students are seated in columns. This allows for easy collaboration and encourages students to get up and move around the room.

7. The Square: this arrangement is great for activities that involve a lot of movement or interaction. Students are seated in square formations. This reduces behavior management issues and allows for easy monitoring of student interactions.

8. Star: this arrangement is perfect for group discussions or activities. Students are seated in a formation similar to that of the surrounding shape, allowing them to easily face each other and share ideas more effectively!

How Does Seating Arrangement Affect Student Learning?

Seating arrangements can affect student learning in a variety of ways.

For example, desks arranged in rows or circles allow students to have a more direct focus on the teacher while they are presenting information to the class.

Desks set up in U-shapes can be beneficial for group activities since it allows everyone to see each other's faces and encourages collaboration among peers.

Classroom seating arrangements also affect how comfortable students feel participating in class discussions and activities.

This can either promote or discourage collaboration among peers depending on the arrangement chosen by the teacher.

Suppose everyone is seated in rows facing forward. In that case, it may be hard to collaborate as effectively as when seated around a table or circle where all participants are more visible and accessible to each other's ideas.

In addition, seating arrangements can encourage better behavior from students since they will likely feel more connected with their classmates when grouped together rather than spaced far apart from one another.

Classroom Seating Arrangement Benefits Students

There are many benefits to providing different seating arrangements in the classroom.

Arranging desks into circles or U-shapes allows for more interaction and collaboration between students, which can lead to a deeper understanding of the material being taught.

Desks set up in rows provide a better visual cue for teachers when it comes to managing student behavior since they will be able to clearly see who is engaging with the lesson and who may need additional support.

Grouping desks together also helps create an inviting atmosphere where all students feel comfortable participating in class discussions and activities without feeling overwhelmed by their surroundings.

Seating arrangements such as those mentioned above not only benefit student learning outcomes but also help foster strong relationships within the classroom community through increased communication and collaboration among peers. Arranging desks into star configurations provides more space between classmates, so they feel less confined and are able to think independently without feeling overwhelmed by their surroundings.

The star type of configuration is especially beneficial for younger children who require additional attention from educators due to their age-level abilities.

Finally, standing desks promote health and energy among learners while encouraging movement, which keeps them engaged throughout lessons,

These types of desk setups are excellent options for classrooms where active learning is encouraged, such as physical education classes or science labs where experiments take place regularly.

Overall, there are many different ways teachers can arrange furniture within their classrooms depending on what works best for both themselves and their students' needs.

It's important that educators look at each situation individually before deciding on an arrangement since no two classes will be exactly alike; providing flexibility within classroom layouts helps ensure every learner feels comfortable engaging with the material presented during instruction time, no matter how it's delivered!

FACTORS TO CONSIDER IN SEATING PUPILS

1. Friendships and familiarity
2. Pupils' interest
3. Visual problems
4. Auditory problems
5. The level of the class

OTHER FACTORS:

- a. Height problems.
- b. The nature of the furniture.
- c. The size of the classroom and the number of pupils.
- d. The nature of the activity to be performed.

What is behavior modification?

There are many different methods and philosophies of dealing with "inappropriate," "abnormal," or "undesirable" behavior. Behavior modification is one of these. It is different from other methods and philosophies in that it focuses only on observable, describable, and measurable behaviors, as opposed, for example, to psychoanalytic theory which focuses on finding the underlying cause (i.e., childhood trauma) of behavior.

Behavior modification, based on behaviorist principles, operates on the following tenets:

- 1) Behavior is controlled by antecedents, events which occur before a behavior is exhibited
- 2) By consequences, that is, events which occur after a behavior is exhibited.
- 3) These antecedents and consequences can be changed in order to increase or decrease the chance that a given behavior will continue to be exhibited.

these steps have been taken and it is agreed that a problem which warrants intervention does exist, behavior modification can be implemented.

What are examples of behavior modification interventions?

Examples of behavior modification which can be used to increase behavior are: **praise and approval, modeling, positive programming, shaping, token economy, self-monitoring, and shaping.**

Methods which can be used to decrease behavior are: **extinction, reinforcing incompatible behavior, relaxation, self-monitoring, and shaping.**

MANAGING INSTRUCTIONAL TIME

The instructional time is also known as the **contact hour**. *It is the time frame for interaction between the teachers and the students to do an activity.* The instructional time is only the period the teacher meets the class to give them an instruction. Any meeting out of this period even though is part of the actual curriculum of the school is not part of the instructional time, for e.g. interaction during break, dining period, games etc. do not form part of the instructional time.

MISUSE OF INSTRUCTIONAL TIME

Instructional time is misused in several ways. Among them are;

1. ***Late starting of classes.*** This can be caused by a natural occurrence like heavy downpour or sickness. It can also be artificial like laziness, traffic or intentional. Whichever way that it occurs it affects the instructional time.
2. ***Early closing of school.*** This may be caused by some factors like closing early

to attend a programme or laziness on the part of the school authority.

3. ***Teacher absenteeism.*** Any time a teacher does not come to school; it affects instructional time.
4. ***Selection in subjects*** on the time table when teachers intentionally neglect some subjects at the expense of others, it leads to waste of instructional time.
5. ***Holidays.*** Most of the time there are so many public holidays that force school authorities to close down schools. It affects the instructional time.
6. ***Spending part of the time to organize sporting and cultural activities,*** for e.g. some days are lost to sporting and cultural activities in the course of the term. These affect instructional time.
7. ***Organizing staff meeting during instructional hours.***

Hence any incident that prevents the teacher from meeting a class for instruction accounts for mismanagement of instructional time.

EFFECTIVE MANAGEMENT OF INSTRUCTIONAL TIME

- Bells or drums should be used to signal the beginning and end of a lesson.
- Teachers as well as the pupils should work with the bell or drum.
- Lesson notes should be prepared to cover all the subjects on the time table.
- Adhere to the lesson and the duration you prepared in your teaching.
- Holidays should be reduced by policy makers and the government.
- Pupils should not be allowed to play beyond the official duration given.
- Co-curricular activities should be held outside the normal instructional time.

Aside the above, Crowl, Kamisky and Podell (1997) have given the following suggestions on how to maximise the use of instructional time.

1. Keep students motivated

2. Keep instruction on students' levels. Instructions that students find to be either too easy or too difficult will make them lose interest.
3. Keep students active. Lessons should be composed of activities that are meaningful and promote the achievement of instructional objectives.
4. Be organized and prepared; anticipate problems.
5. Delegate responsibilities when appropriate. Call responsible students to help with administrative functions that are within their range of capabilities so that you can concentrate on essential matters and teaching.
6. Turn on your 'radar' and watch for students whose attention is drifting.

ORDER AND DISCIPLINE IN THE CLASSROOM

Order is submission or compliance to rules and regulations for fear of punishment, fear of losing a favour or in anticipation for some favour. When a student obeys school *rules* and regulation for fear that he/she would be punished, the student is said to be respecting order. Similarly if a truant feels he/she would be discriminated against in the distribution of prizes to well behaved students, and therefore changes, he is said to be following or being submissive to order.

Any change in behaviour that is motivated by needs, fear or discrimination, fear of punishment, etc., is said to be the result of order. Order is therefore externally imposed. The use of force and forms of punishment may work to some extent, at least for some time; such disciplinary methods are based on fear.

Discipline is defined as readiness or ability to respect authority and observe conventional or established laws of the society or of any other organization. Discipline means self-control, restraint, respect for self and respect for others. It therefore requires sacrifices, perseverance, tolerance and recognition of human dignity.

Discipline is directed by inward decision and therefore involves self-control. A disciplined person knows what is right and takes the right course of action not for fear of punishment or in anticipation for a reward because he knows that is good to behave as such.

Disciplined people willingly learn the norms, principles and ways of life of people in the society. The purpose of school discipline is therefore to produce a well cultivated youth who will not only respect themselves and the larger society but will also respect school authorities, school rules and regulations. For set goals or objectives to be achieved discipline and orderliness are vital.

The teacher should therefore possess the needed qualities to control the class to maintain law and order. Green (1962) identified: ***talking, disobedience, carelessness, defiance of authority, throwing objects, etc.,*** as the common misbehaviour that occurs among students.

Charles (1983) identified three kinds of misbehaviour that are likely to occur in the classroom and in which teachers frown upon. These are

- Behaviours that affect their senses of morality.
- Behaviour that is defiant and aggressive.
- Behaviour that disrupts class work.

CAUSES OF INDISCIPLINE IN THE CLASSROOM/SCHOOL

There are generally 2 categories of factors that create disorders and indiscipline namely external and internal factors. The external factors are **social in kind and those that the teacher might not be responsible for causing or decreasing them.** Examples are parental rejection, poverty, low socio-economic status, viewing violent and pornographic films, frustration, inadequate scholastic aptitude and achievement.

The next factor comes from the way the school is organized. Under this factor are categorization of pupils into high, average and low ability groups, large class size, inadequate personal attention and crowding (de-personalization), lack of teacher authority (the head alone wields power), lack of delegation by school heads, large class size making it impossible for teachers to help learners with special attention needs, poor school-community relations.

In their book 'Educational Psychology', Gage and Berliner (1984) categorized problems that bring about disorder and indiscipline into two namely "too much misbehaviour of undesirable kind" and "too little behaviour of desirable kind". The categories simply imply that, when pupils' behaviour is often undesirable it creates indiscipline in schools just as when pupils' good behaviour is very little creates discipline problems.

CATEGORY ONE PROBLEM (Too much..... Of undesirable kind)

1. Physical aggression
2. Verbal aggression
3. Inappropriate movement in the classroom
4. Creating or making unnecessary noise
5. Challenging authority
6. Disobedience to authority
7. Making destructive criticisms or unjustifiable complaints
8. Teasing and ridiculing
9. Frequent lateness/ absenteeism

CATEGORY TWO PROBLEM (making too little..... Of desirable kind)

1. Attentiveness in class
2. Showing interest in class work, etc.
3. Appropriate interactions with classmates
4. Regular and punctual attendance to class
5. Independent work by pupils
6. Obedience to rules and regulations
7. Exhibiting the spirit of brotherliness

OTHER CAUSES OF CLASSROOM INDISCIPLINE

1. Ineffective teaching
2. Inappropriate staff behaviour
3. Authoritarian and pure lazier-faire administrative method
4. Harsh school rules
5. Influence of home and society
6. Harshness of school prefects
7. Harshness of continuing students on junior students
8. Poor academic results
9. Unsatisfactory school curricular
10. Poor examination results
11. Lack of enforcement of school rules and regulations
12. Poor communication between the school administrator, staff and pupils.
13. Poor quantity/quality food

SYMPTOMS OF INDISCIPLINE

There are signs which when seen in the school indicate that there is indiscipline in the school. Among these signs are:

1. Students' demonstration (peaceful/violent)
2. General unrest
3. Mass disobedience
4. Deliberate breaches of school rules
5. Drug use
6. Alcoholism
7. Delinquencies
8. Drunkenness
9. Stealing
10. Truancy
11. Absenteeism
12. Persistent lateness
13. Bullying or laziness

HOW TO MAINTAIN DISCIPLINE

If the indiscipline stems from poor school organization the following could be used to salvage the situation.

1. Strong administration
2. Good leadership
3. High expectations of school achievement
4. Orderly school setting
5. Emphasis on basic skills
6. Frequent monitoring of pupils' progress

HOW A HEADTEACHER AND STAFF CAN ENHANCE DISCIPLINE

Discipline could be enhanced by the head teacher and his staff through some of the following ways among others:

1. Preparing good lesson plans and submitting them earlier for vetting by the school administrator (headmaster)
2. Regularly and punctually attending school
3. Formulating and effectively enforcing good school rules and regulations.
4. Being honest in the use of school funds and finances.
5. Avoiding favouritism in the dealing with staff and pupils.
6. Encouraging parents and guardians active participation in the running of the school.
7. Giving respect for parents and showing great concern about their problems by offering them the desired assistance towards solving the problems.
8. Avoiding having amorous love with the pupils of the school.
9. Putting in place a permanent discipline committee with the members of a sound moral behaviour and have the ability to manage conflict situation at any level in the school.
10. Impressing on the staff the need to set good examples for the pupils to emulate.
11. By impressing on the staff to work as a team and towards goals set, as well as behaving desirably in and outside the classroom.
12. By solving conflicts in a positive and constructive approach.
13. Following rules, regulations and procedures laid down by Ghana Education Service.(Employers).
14. Maintaining constant communication with staff and pupils using the prefectural and committee systems.

WAYS OF PREVENTING UNDESIRABLE BEHAVIOURS

1. Keep students occupied with activities that will keep them busy, they will therefore not get time under normal circumstances to misbehave.
2. Teacher should ensure a smooth lesson delivery during instruction.
3. The teaching and learning materials used should meet pupils' needs and interest.
4. Appropriate use of motivation is an important factor as teachers should

periodically motivate and admonish students to pay attention.

5. The teacher should be smart and know whatever goes on within the classroom.

HOW TO PREVENT UNDESIRABLE BEHAVIOURS IN THE SCHOOLS IDENTIFIED BY KOUMI (1970)

WITNESS: the tendency to know whatever goes on in the classroom. The teacher with high witness has an “owl” eye i.e. sees everywhere, hence able to detect the least undesirable behaviour put up at any corner of the classroom.

SMOOTHNESS: the ability to continue executing any activity of the school or classroom without distracting the attention of the pupils’ i.e. undisturbed flow of activities.

HANDLE OVERLAPINGNESS: ability to handle 2 or more similar problems without getting confused and without losing touch of the fact that the situations can bring additional and more serious problems if left unchecked.

MAINTAIN MOMENTUM: ability to sustain interest in everything one does i.e. no slow down, keeping to the pace.

GROUP ALERT: ability to get pupils or students actively involved in what is being taught.

HOW TO EXTINGUISH UNDESIRABLE BEHAVIOURS IN THE SCHOOLS AS IDENTIFIED BY O'LEARY (1977)

WITH HOLDING ATTENTION: deliberately ignoring the misbehaviour of pupils and continuing to focus attention to the pupil who is behaving desirably.

NEGATIVELY REINFORCING UNDESIRABLE BEHAVIOUR: openly ask students or pupils to ignore the behaviour of the classmates.

MEANINGFUL OCCUPATION OF STUDENTS: keep pupils on interesting tasks so that they would rather focus attention on what is being taught instead of attending to fellow classmates' misbehaviour.

PROMPT HANDLING OF SOME MISBEHAVIOUR: since silence means concern, if undesirable behaviours are not openly criticized, they may persist. Open defiance, obscenity, hostility, bullying, directed at the teacher or the head teacher cannot be ignored. Taking prompt and immediate action is desired.

HOW TO STRENGTHEN DESIRABLE BEHAVIOUR

- **ENCOURAGEMENT:** encourage desirable behaviours from other pupils. When someone puts up an undesirable behaviour e.g. when a pupil answers a question without being called to answer a question, his answer is ignored and another pupil who puts up the hand is called to respond to the same

question. When the offending student answers a question after putting up hand and being called, he should be praised to strengthen this desirable behaviour.

- **USE OF PUNISHMENT:** punishment is used when other strategies had failed to yield the desired results. The punishment should however be necessary and justifiable.

FORMS OF PUNISHMENT

1. Soft reprimand – rebuke.
2. Reprimand linked with praise to prompt desirable behaviours.
3. Social isolation – ostracize.
4. Deduction of points from section.
5. Banning to take part in interesting activities e.g. soccer, ludo, netball.

6. Negative attention – harsh words, facial expression, tone of voice and gestures indicating that the learner was not behaving desirably.
7. Corporal punishment. It should be noted however that corporal punishment such as spanking, physical assault (using hands), detaining, imprisonment, denying pupils access to meals and water for a long time is very wrong and morally unpardonable, especially during the teaching and learning process.

HOW TO DEAL WITH “TOO LITTLE OF DESIRABLE BEHAVIOURS”

From the view point of psychiatrists and clinical psychologists, shyness, withdrawal, daydreaming and inattentiveness are more serious misbehaviours than absenteeism, truancy, lateness, etc. as they affect negatively the teaching and learning process making the teacher waste his energy. The teacher should refer such acts to the specialist when they appear excessively.

Among the strategies to adopt to check such behaviours are:

1. **ELICITING:** call children's attention more frequently to partake in the task on hand.
2. **MODELLING:** use people who were active during learning process and have become high achievers or successful in their life endeavours as examples to the pupils.
3. **REINFORCEMENT:** immediately praise or commend the pupils showing the slightest desirable behaviour.
4. **SHAPING:** the teacher after commending, praising or appreciating the contribution (good behaviour) of the pupil, ask for more of such acts from the pupil and other pupils.
5. **CONTRACTING:** this is sometimes called performance contract. The teacher promise an award of marks, pencils, chalk, pens or exercise books to the pupils if he or she is able to put up a desirable behaviour.

NOTE that promise failed means breach of contract and it will result in undesirable behaviours.

HOW TO HANDLE DISRUPTIVE PUPILS

1. *Have a good ocuclence and kinesis.* This deals with eyes and body movement

that will make the teacher alert to identify particular students who misbehave and address that misbehaviour almost immediately. For lower primary class, if they are not corrected immediately they may not understand why probably they are punished.

2. ***The teacher should maintain the momentum of teaching.*** Be consistent and sustain interest of learners throughout the lesson. There should not be climaxes and downward trends during instruction.
3. ***Smoothness is another way of handling disruptive pupils.*** Whatever you teach pupils should flow with no distractions when it becomes necessary to change activities. If during instruction anything happens that will distract attention, allow students time to look at that thing, it should not be happening while they may be receiving instruction.
4. ***Group alerting:*** this is the ability to manage students in a way that keep students involved, attentive and alert. This could be done by maintaining suspense as to what kind of questions would be presented next. Inattentive pupils could sometimes be called upon to answer questions.
5. ***Rewarding and praising attentive students:*** we emphasize here that good behaviour exhibited by students should not go unrewarded. Rewards like clapping, praises and if possible marks should be used to handle disruptive students. Good behaviours should be rewarded but bad behaviours should be condemned to bring about the desired behaviour.

In dealing with tardiness (perpetual late comers) the following are suggested:

1. Reward students for arriving on time.
2. Help students to analyse skills or steps required to arrive on time e.g. determine time to leave for home.
3. Place a sign-in sheet at the door so that students can record their names. The class register should be marked early and at closing, the roll should also be taken.
4. Schedule activities that students enjoy at the start of the class period.
5. Set up contract with students.
6. Encourage parents to give watches to their children.
7. Assign peer tutors.

Verbal outbursts refer to cases where students talk out in class and disrupt the orderly flow of classroom activities. The following measures are suggested as means of handling verbal outburst:

- a. Establish clearly stated classroom rules regarding students' verbal interactions. Let students be very clear about circumstances under which they are allowed to talk.
- b. Reinforce students who are good models for others to emulate.
- c. Set up a points system for dealing with talking out.

In some instances, disruptive pupils may move about the classroom at inappropriate times. The following can be adopted to deal with the problem:

- i. **Discuss class rules to the full understanding of students.**
- ii. **Record the amount of time the student is out of his seat.**
- iii. Have students record their own in-seat behaviour.
- iv. Provide frequent reinforcement for appropriate behaviour.

Some students may have difficulty getting along with others and this may be characterized by aggressive behaviours or withdrawals. To improve social relationships the following measures may be used:

1. Use role-play to help students practice non-aggressive responses.
2. Teach students acceptable responses to verbal or physical attacks.
3. Reinforce students who substitute appropriate non-aggressive responses for the aggressive behaviour they previously exhibited.
4. Use reinforcers to encourage social interactions of withdrawn students.
5. Pair withdrawn students with a helpful peer

Questioning and Feedback

- Levels of questioning
- Relevance of questioning
- Types of questioning
- Effective question strategies
 - Feedback

QUESTIONING

What is a Question?

A **question** is a problem which needs to be discussed. *In an examination, a question is a problem which is set in order to test our knowledge or ability.* According to **Koomson et al (2000; 207)** a question may be interrogative statement or command. E.g. “Tell me what you see in this book.”(Command)

“We will describe what you see in the book” (command)

“What do see in this book?” (Interrogative)

All the above sentences are expecting responses.

In the context of teaching however, question may be defined as a teacher utterance which has the objective of eliciting an oral response from the learners. I.e. is an oral response statement or gesture intended to evoke a student response?

The reasons for questioning

It enables the teacher:

1. Know what is in the mind of the learners.
2. Make the pupils express what they have understood in the lesson.
3. Make the learners think.
4. Remind learner about important issues or points which they may not deem important.
5. Remind learners of what they know.
6. To find out if learners can use their knowledge
7. To make the introverts express themselves in class, i.e. it prompts pupils to take part in the lesson.
8. To draw learners attention to the main points in the lesson.
9. To check and correct inattention, i.e. it keeps the learners alert
10. To find out how effective his teaching has been, i.e. to assess the achievement of the lesson objective(s).

KINDS OF QUESTIONS AND PURPOSE

FACTS QUESTIONS:

They are meant to draw up thought. They call for quick responses. E.g. to test whether learners remember names, dates, etc.

DRILL QUESTIONS:

To sharpen children's memories. They aid memorization. They are also known as warm-up questions.

Thought Questions

They are meant to encourage originality in answering. Thought questions lead to general discussions by the class. They are used to stimulate questions from the learners themselves. Thought questions require reasoning or judgment on a problem.

Discussion Questions:

The questions make learners form different points of view. The teacher does not explain what he expects from the learners.

Exploratory Questions:

These questions are asked to introduce a lesson. It seeks to remind learners of what they have been taught before. (Review of P.K) they are check – up test. The aim is to stir up learners' eagerness to know more. It also let the teacher know the knowledge of the learners and what to build on.

Education Questions:

They are meant to let the learner compare, imagine, or infer so it enable the learners build upon their ideas as the teacher wants. The questions are therefore call for real mental effort of the learners.

Aid-To- Memory Questions:

These questions are meant to let learners remember things they often forget. They are used only when pupils go against rules, advice or instructions.

TYPES OF QUESTIONS AND PURPOSE

RHETORICAL/FUENCY: They test how fluent learners are. Learners are expected to answer in full.

PROMPTING QUESTIONS: The wordings of such questions suggest their answers. They prompt pupils to make them answer questions. E.g. Godfred is a good spokesman, isn't he? Teachers resort to these questions on realizing that learners find his lesson difficult to understand.

CONVERGENT: They are questions that limit answers to single or small number of responses. The learner has already heard the answer before or has previously read or heard and is only to recall the facts. E.g. "What does the term etc. mean? What is the name of your class teacher?"

Convergent questions are also called direct or closed response.

DIVERGENT QUESTIONS: These questions are opened for several responses i.e. it has no single answer but it can have wrong answers. The questions do not require specific answers. The questions do not require specific answers to be right or wrong. Divergent questions are also known as indirect questions.

They are aimed at encouraging speculation and creativity among learners. They also make learners think critically.

E.g. the question ‘who is the most important person in Ghana?’ will call for several answers.

PROBING QUESTIONS: They are questions that immediately follow a student’s response to a question. Probing questions are also called investigation questions. Probing questions are used to elicit clarification because they induce learners to show more of what they know thereby revealing exactly what they understand.

They are also used to solicit new information. Thus they make respondents follow up their responses with small extension of their responses.

HIGHER ORDER QUESTIONS: these questions make pupils think and analyses issues.

FOCUSING QUESTIONS: They are also known as recapitulatory questions. They are asked at the end of each stage of the lesson and at the end of the lesson. They help the teacher to find out whether learners have assimilated what has been taught. It helps the learners to get in mind the important facts. They provide summary of each stage of the lesson.

LOWER ORDER QUESTIONS: These questions demand simple responses like Yes/No; True/False.

WHEN TO QUESTION DURING TEACHING AND LEARNING

(A) ***AT THE BEGINNING OF LESSON*** i.e. introduction of a lesson.

1. To test children’s precious knowledge.
2. To call children to attention to begin a lesson.
3. To arouse the curiosity of the learners.

(B) DURING THE LESSON.

1. To encourage learner involvement in the lesson.
2. To find out how far the learners have understood the lesson up to a point.
3. To correct misconceptions of learners.
4. To call learners to attention.

(C) AT THE END OF THE LESSON

5. To evaluate the lesson taught.
6. To stress the most important points.
7. To find out the difficulty areas of the learners.

HOW TO MAKE QUESTIONS EFFECTIVE

1. Questions must be clear and straightforward meaning and wording.
2. Questions should dwell on important details.

Questions should be put in a logical order.

3. Questions should be put for all learners in the classroom not specific learners.
4. Questions may be carefully written down beforehand.

HOW TO QUESTION

How to ask question during the teaching and learning process is a skill to be acquired by all teachers. Among other techniques teachers can adopt when asking questions in class are as follows;

1. **Avoid chorus responses from learners.**

Defects of chorus responses

- a. Some individuals may noticeably not take part. It therefore suppresses individual self-expression.
- b. It decreases individual thought. Individuals may not think of the question to be answered.
- c. It does not permit the teacher to monitor feedback from individual learners.

2. **Teachers should follow a simple five-part questioning procedure to draw the mind of all the learners to the question.**

THE FIVE PART QUESTIONING PROCEDURE

1. Ask question before naming a pupil to answer the question.
2. Pause ("wait times"). This will make every learner have time to think about the question. While waiting, watch the learners for non-verbal feedback to determine how long to pause; at least three seconds.
3. Call on one learner at a time and by name.
4. Listen to the answer.
5. Emphasize the correct answer.

MOTIVATION

- Concept of motivation
- Types of motivation
- Strategies employed in motivating students in the classroom.
 - Importance of motivating students

What is Motivation?

The term motivation is derived from the Latin verb “movere” which means “to move”. Motivation therefore is the process of moving oneself and others to work towards the attainment of individual or organizational objectives. In classroom teaching and learning, motivation can be seen as the process of arousing and sustaining interest in an activity.

Types of Motivation

There are two types of motivation. These are intrinsic motivation and extrinsic motivation.

Intrinsic Motivation

This type of motivation comes within the person or it is self-imposed. In this type of motivation, the learner or individual is moved from within to perform an activity without any external influence. For example, when we do something because we are anxious to do it ourselves, it means we have been motivated intrinsically. Intrinsic motivation has its emphasis on interest and excitement.

Extrinsic Motivation

This type of motivation comes from outside the person or they are externally imposed. It is concerned with learning or behaviour that has connection with outside influence. It has some artificial connections with such incentive as rewards, praise, grades, promotion, examination, teaching/learning materials, and teachers own personality. When we do something because we have been compelled in one way or the other to do it, then we have been motivated extrinsically.

Importance of Motivation

- *Motivation enables the teacher to secure the attention and participation of his students in his lessons.*
- *It encourages learners to learn with all seriousness such as for examinations*
- *Motivation offsets or criminates boredom, fatigue or tiredness*
- *It creates interest and excitement, which is necessary for learning*
- *It encourages learners to undertake activities with all seriousness*

Some Strategies for Motivating Learners

- ✓ *Use praises, rewards, approval, words of encouragement, etc.*
- ✓ *Make teaching practical through field trips, demonstrations, etc.*
- ✓ *Make the learning activity exciting and interesting by using appropriate and suitable teaching and learning materials and equipment.*
- ✓ *Give learners the opportunity to take active part in what is learned. For instance, let them make suggestions and contribute ideas.*
- ✓ *Introduce occasionally, activities such as games and competition among learners to arouse their interest.*
- ✓ *Set achievable goals and standards. If goals set are not attainable, learners may get discouraged.*

ASSESSMENT

- Concept of Assessment, Test, Measurement and Evaluation
 - Types of assessment
 - Forms of assessment
- General principles of assessment
 - Relevance of assessment

What is Assessment?

Assessment is the process of obtaining information that is used for making decisions about learners, curricula, programs, and educational policy in the school environment. It includes the full range of procedures used to gain information about learner learning



The Classroom Assessment Process

Assessment involves learners, teachers, the school, parents, and the managers of the curriculum such as GES, NACCA, and WAEC. This is because the data collected whether formal or informal must be used either by the learner or teacher to determine the learning progression of the learner. Schools use this data in line with School-Based Assessment requirements and the feedback is given to learners and parents. The school must be able to meet national requirements for assessment.

Essentially, assessment is an ongoing process which uses a wide range of tools and instruments to gather information about a learner and evaluate that information.

Measurement, Assessment and Evaluation

Evaluating learner learning or performance involves some sort of measurement using a range of assessment types which can be evaluated.

To explain this even further, think back to your own experiences as a learner. A teacher wants to check how well learners who have been taught antonyms and synonyms have gained the needed knowledge and understanding. The teacher:

1. decides to test learners, using a series of worksheets over a period
2. assesses their need for reteaching or advancing to new learning based on the reliable test results
3. evaluates the effectiveness of the lessons by determining the degree to which learners can demonstrate knowledge and understanding in new contexts

Relationship among Measurement, Assessment, and Evaluation

Measurement	Assessment	Evaluation
Collect numerical data Percentage, standards Goal: valid, reliable results	Collecting data Constant process Formative/summative Ends with evaluation	Using data collected from assessment to Maintain, reform, or dismiss Connects educational goals and goals achieved
Example		
A learner got 25 out of 30	The learner's grade is fair	The learner needs to focus on X and Y parts of the educational objectives, the teacher needs to work more on or develop the Z part of the teaching objective.

Principles of Assessment

Principles of assessment serve as guidelines to ensure that a test is useful, appropriate, effective, and credible. Since assessment is a crucial and integral part of learning and teaching, it is important that these general principles serve as guidance in determining the level of accomplishments of learners during the learning process and at the end of the learning. These principles, therefore, reinforce what we think is important in creation, selection, administering, measuring, assessing, and evaluation. The principles of assessment must therefore translate into our classroom practices. These principles include:

1. Principle 1 - Assessment should be valid

- Validity ensures that assessment tasks and associated criteria effectively measure learner attainment of the intended learning outcomes at the appropriate level.

2. Principle 2 - Assessment should be reliable and consistent

- There is a need for assessments to be reliable and this requires clear and consistent processes for the setting, marking, grading, and moderation of assignments.

3. Principle 3 - Information about assessment should be explicit, accessible and transparent.

- Clear, accurate, consistent, and timely information on assessment tasks and procedures should be made available to learners, staff, and other external assessors or examiners.

4. Principle 4 - Assessment should be inclusive and equitable

- As far as is possible without compromising academic standards, inclusive and
- equitable assessment should ensure that tasks and procedures do not disadvantage any group or individual.

5. Principle 5 - Assessment should be an integral part of programme design and should relate directly to the programme aims and learning outcomes.

- Assessment tasks should primarily reflect the nature of the discipline or subject but should also ensure that learners can develop a range of generic skills and capabilities.

6. Principle 6 - The amount of assessed work should be manageable

- The scheduling of assignments and the amount of assessed work required should provide a reliable and valid profile of achievement without overloading staff or learners.

7. Principle 7 – Assessment must incorporate technology and use multiple tasks and methods.

- That is, formative and summative assessments should be included in the assessment procedure to ensure that the purposes of assessment are adequately addressed. Assessment must also use technology.

8. Principle 8 - Timely feedback that promotes learning and facilitates improvement should be an integral part of the assessment process

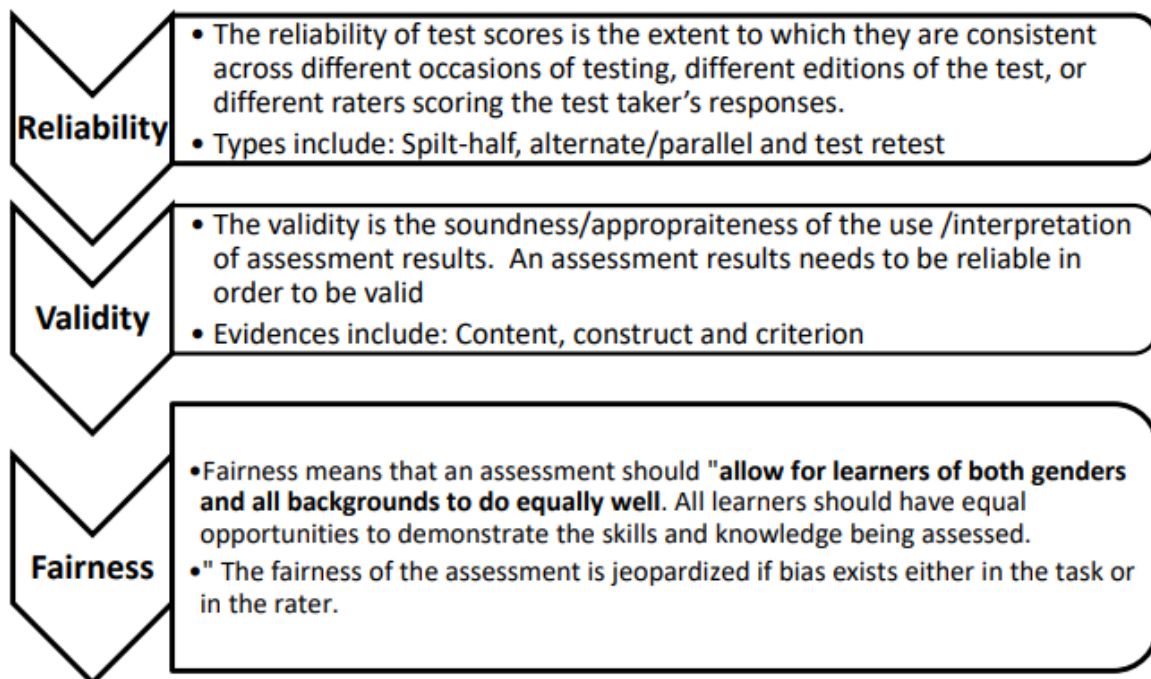
- Learners are entitled to feedback on submitted formative assessment tasks, and on summative tasks, where appropriate. The nature, extent, and timing of feedback for each assessment task should be made clear to learners in advance.

9. Principle 9 - Staff development policy and strategy should include assessment

- All those involved in the assessment of learners must be competent to undertake their roles and responsibilities

Qualities of Assessment Results

An assessment is a process through which learners can share their educational experiences. For a test to be a good tool for measuring learners' knowledge and skills, it should have the following characteristics that are essential for the success of any test.



PURPOSE OF ASSESSMENT

The Why? and the Who? of Assessment

When participating in any learning experience it is important to know how they are progressing during the learning experience and to also determine what they can do with their knowledge, understanding, and skills. It is also important especially these days to determine what soft skills or dispositions they have also developed over time. This presupposed that the learning outcomes are clear and have also been communicated to the learners. The data/ information from the measurements, assessments and evaluation are ultimately necessary and useful for a few reasons some of which are

- To provide an initial assessment of learner level of competence
- To build learner confidence in their abilities through feedback
- To provide the learner with an opportunity to reflect on their own learning and opportunities for growth
- To provide feedback to parents as evidence of learner achievement
- To provide data for whole school improvement interventions
- To monitor learner attainment/achievement of standards and provide feedback to the teacher for individualized support and whole class support for ongoing learning

WHO WILL BE ASSESSED?

- i. All Learners
- ii. Individual learners e.g., a learner who is receiving remedial support
- iii. Groups of learners e.g., learners who have a special need, need remediation

WHAT WILL BE ASSESSED?

Learner progress in

- Skills
- Knowledge
- Understanding
- Dispositions of ongoing learning

Comparison of AoL, AfL and Aal

	Assessment Of Learning	For Learning	As Learning
Type	Summative	Formative	Formative
What	Teachers determine the progress or application of knowledge or skills against a standard.	Teachers and peers check progress and learning to help learners to determine how to improve.	Learner takes responsibility for their own learning and asks questions about their learning and the learning process and explores how to improve.
Who	Teacher	Teacher & Peers	Learner & Peers
How	Formal assessments used to collect evidence of learner progress and may be used for achievement grading on grades.	Involves formal and informal assessment activities as part of learning and to inform the planning of future learning.	Learners use formal and informal feedback and self-assessment to help understand the next steps in learning.
When	Periodic report	Ongoing feedback	Continual reflection
Why	Ranking and reporting	Improve learning	Deeper learning and learning how to learn
Emphasis	Scoring, grades, and competition	Feedback, support, and collaboration	Collaboration, reflection, and self-evaluation

FORMS OF ASSESSMENT

Formative and Summative Assessment

Formative Assessment	Summative Assessment
<ul style="list-style-type: none"> i. Is intended to collect data on learner's learning and progress in a way that gives both the learner and the teacher feedback and relevant information while teaching and learning are ongoing. ii. Formative assessments can be administered before, during, or after a lesson. iii. Formative assessments can inform the teacher on the need to reteach or reinforce a post-learning experience/ outcome. 	<ul style="list-style-type: none"> i. It could be administered at the end of teaching a unit, topic, or level in learning progression such as midterm, end of term or end of the year. ii. The expectation is that at this point, new topics or content will be introduced. iii. In some rare cases, summative assessment could be formative in determining how new learning should and would be approached. iv. Assessment at this stage could be the norm-referenced or criterion reference

Formative Assessment examples

Pop quizzes ii. Reading checks iii. Learning games iv. Homework v. Discussion questions vi. Music rehearsals vii. Reflection paragraphs

Summative Assessment examples

Graded tests ii. Research reports iii. Structured essays iv. Portfolio projects v. Book reports vi. Final exams vii. Recitals or concerts viii. Standardized tests ix. Science projects.

Importance of formative assessment for learning

Formative assessment is a flexible and informal way of assessing a learner's progress and their understanding of a certain subject matter. It may be recorded in a variety of ways, or may not be recorded at all, except perhaps in lesson planning to address the next steps.

- Formative assessment helps learners identify their strengths and weaknesses and target areas that need work.
- It also helps educators and governors recognise where learners are struggling and address problems immediately.
- At a school level, school leaders use this information to identify areas of strength and weakness across the institution, and to develop strategies for improvement.
- As the learning journey progresses, further formative assessments indicate whether teaching plans need to be revised to reinforce or extend learning.

Importance of summative assessment for learning

In the current education system, standard-driven instruction plays a significant role. Summative assessment, therefore,

- provides an essential benchmark to check the progress of learners, institutions, and the educational program of the country.
- Summative assessment contributes largely towards improving the curriculum and overall curriculum planning.
- When summative assessment data indicates gaps across the board between learner knowledge and learning targets, schools may turn to improved curriculum planning and new learning criteria to assess and improve their school attainment levels.

Differentiation in assessment

Differentiated assessment involves teachers considering different types of assessment strategies and ways learners can demonstrate their understanding to cater to different learning needs, interests, and abilities ensuring fairness, equity, and inclusion. Differentiated assessment may consider the differences between individual learners, such:

- The current level of understanding and ability
- Prior learning experiences
- Motivation and engagement with learning

- Interests and talents
- Learning preferences