

MULTI-LEVEL AND MULTI-GRADE TEACHING IN AN OBE CONTEXT

(including Learning Styles and
Co-operative Methodologies)

SECTION ONE: MULTI-LEVEL / GRADE CLASSES

OUTCOMES:

Participants should develop an understanding of effective multi-level classroom organisation and instructional practices by discussing their authentic experiences in groups.

Participants should understand and discuss the challenges facing teaching, learning and assessment in multi-level/grade classes.

If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured, or far away.
(Thoreau, 1963)

1. Background

The introduction of the National Qualification Framework (NQF) to the South African education system aims to ensure that, among other things, the education needs of all learners are recognised and addressed through Outcomes Based Education and a new curriculum: Curriculum 2005 with the RNCS for GET and NCS for FET. The curriculum suggests alternative ways of looking at knowledge, at learners and how they learn, and therefore, at ways of teaching, learning and assessment.

Educators face classrooms with diverse learner populations and are expected to be culturally sensitive and to have skills for teaching a wide range of learners (Holmes Group, 1990). Although social changes, legislative decisions, and educational innovations now make the heterogeneity of classrooms more apparent, the truth is there was never such a thing as a homogeneous classroom; our schools have always been diverse (Sapon-Shevin, 1999).

Many educators will claim to treat all learners in the same way and not be influenced by their background or appearance. This is an attempt to be fair and objective. Common sense tells us that to treat everybody in the same way is not a bad approach. However, research indicates that treating learners in the same way does not always result in equality. Because every learner has unique abilities and talents, as well as limitations, failing to recognise and cater for the individual needs of the learner often leads to inferior performance. Educators need to characterise learners in such a way that their unique abilities, talents or limitations are adequately addressed in the learning environment.

Thus on the one hand, educational institutions and educators need to

- acknowledge the differences that exist among learners;

- recognise that such differences may have an impact on how individuals learn,
- make provision for them by planning and implementing programmes which respond to these differences (Nieto, 1996)

At the same time as one identifies such differences, however, a critical understanding of the nature of labelling, as well as its impact on individual learning, is necessary. Ways of addressing such differences should be identified, but one should avoid stereotyping and stigmatising learners or favouring a few at the expense of others.

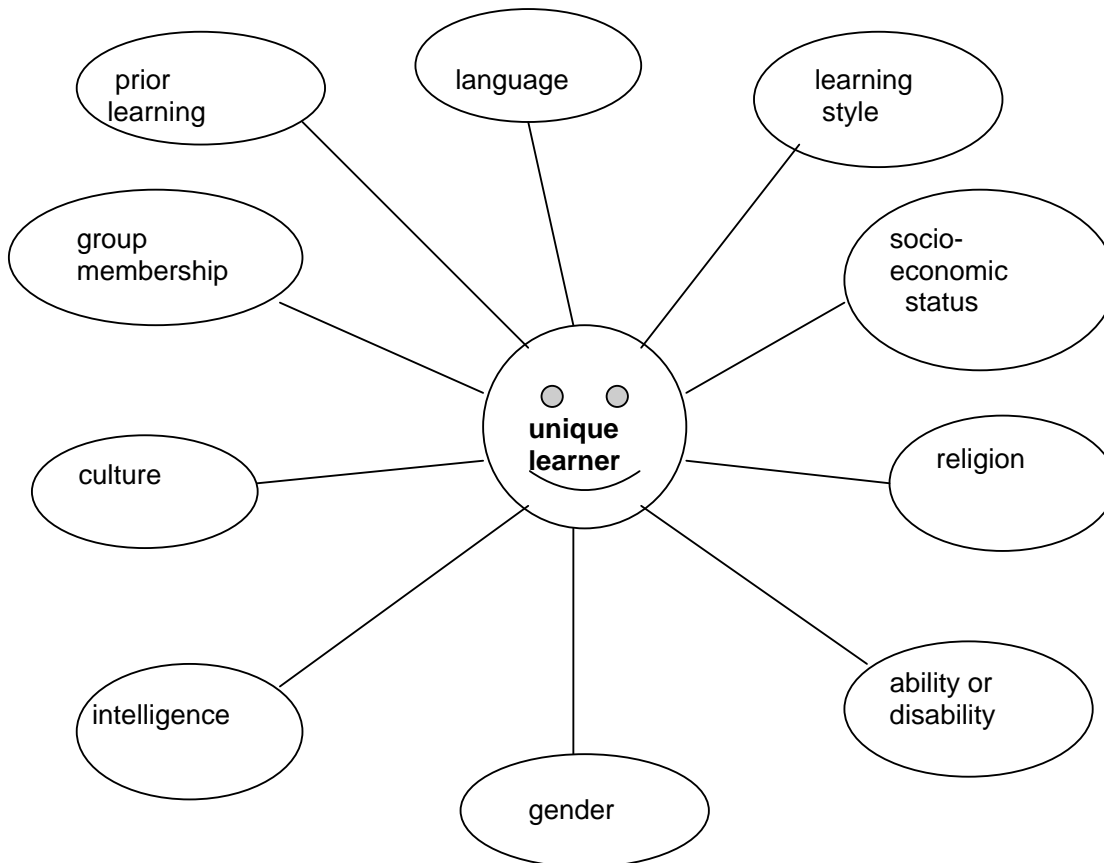


ACTIVITY 1

In groups, brainstorm the factors which enabled or prevented you from achieving your goals when you were at school.

2. What makes learners different from one another?

Sources of learner differences:



2.1 Intelligence

Historically, intelligence or mental ability has been identified as the most important factor in the success or failure of learners. What do we mean when we say a learner is intelligent? Most experts agree that 'intelligence is the ability to deal with abstractions, to solve problems, and to learn' (Snyderman & Detterman in Slavin, 1997). Based on the results of IQ tests, diagnostic test, etc., some learners are then labelled 'learning disabled' or 'gifted'.

Gardner's theory of multiple intelligences suggests that each individual possesses several abilities, talents or mental skills called *intelligences*. These include linguistic, logical-mathematical, musical, spatial, bodily kinaesthetic, interpersonal and intra-personal intelligences. This theory implies that an individual's good or poor performance in one area does not necessarily mean similar performance in other areas (Slavin, 1997). Many learners often find some school subjects easier to manage than others.

2.2 Cultural differences

Culture is defined as the dynamic norms, traditions, socio-political relationships, language, knowledge, attitudes and values that characterise a particular group of people and guide them to behave in certain ways (Woolfolk, 1995; Nieto, 1996; Slavin, 1997). The most common cultural variables according to which individuals and groups are categorised continue to be ethnicity, social class, gender and language. Other variables include family background, religion, geographical background, political affiliation and ability or disability.

2.3 Multiple group membership

Categorisation of learners into groups based on the above cultural variables implies that individual behaviour is dependent upon membership of a single cultural group (e.g. race, gender, social class, etc.). Yet, as Banks (1983), in Woolfolk (1995) suggests, 'membership in a particular group does not determine behaviour but makes certain types of behaviour more probable'. For example, it is not uncommon for educators to assume that children from the same racial or language group have similar cultural characteristics and, therefore, have similar educational needs.

However, research findings indicate that cultural variables interact to impact on how, what and at what rate people learn. An individual belongs to and identifies with several groups at the same time and is influenced by many cultures. Depending on the set of factors that interact to impact on their behaviour and learning, each child should be viewed as a complex individual with unique characteristics and educational needs.

2.4 Influence of prior knowledge

Individual membership of different groups determines the kind of experiences learners have prior to their schooling, most of which are often different from those of their teachers and classmates. What learners learn in classroom situations is influenced by what they already know from such prior experiences. In any one classroom, individual learners will have differing levels of understanding of the content they are faced with, depending upon their prior experiences. Therefore, just as it is unacceptable for teachers to treat learners as empty vessels in the learning situation, it is also illogical and impractical for them to expect learners with varied

prior experiences to benefit from uniform instruction or assessment of learning. What works well for one learner may not necessarily work for another.

2.5 Language differences

Communication in many classrooms is further complicated by language differences between the teacher and learners, as well as among the learners themselves. In the higher grade levels (grades 4 – 12), the majority of learners study in a language that is not their mother tongue (usually English). A number of research studies have attributed the high failure rate of these learners to their lack of proficiency in the language of instruction. The lack of proficiency in English by the learners alone cannot explain academic failure among second language speakers (Nieto, 1996). Among other factors the teacher's attitude towards the learners' languages may impact positively or negatively on achievements. This implies that teachers should respect the learners' different languages and use them in the learning situation.

2.6 Learning styles

The term learning style refers to the different ways in which individuals approach learning tasks or receive and process information. More attention will be given to the different learning styles later in the module (section two).

2.7 Ability or disability (*Barriers to learning and development*)

What are 'barriers to learning and development'?

Factors that can make it difficult to learn are called 'barriers to learning and development'.

Some examples of these factors illustrate what we are talking about:

Barriers to learning that might emanate from the different characteristics of learners (intrinsic barriers):	Barriers to learning that exist in the system itself (extrinsic barriers) could include:
<ul style="list-style-type: none"> • physical, intellectual, sensory, neurological or developmental impairment • psycho-social disturbances • differences in intellectual ability • socio-economic deprivation 	<ul style="list-style-type: none"> • negative attitudes to and stereotyping of difference • inadequately and inappropriately trained education managers and educators • the non-recognition and non-involvement of parents • poverty • inadequate policies and legislation • an inflexible curriculum • inappropriate languages of learning and teaching • inappropriate communication • inappropriate and inadequate support services • lack of or inappropriate transport • problems of physical access • inaccessible and unsafely built environments

To summarise, barriers to learning and development could:

- ❖ Be systemic, e.g. lack of basic and appropriate learning support materials,

- ❖ assistive devices, inadequate facilities at schools, overcrowded classes, etc.
- ❖ Be societal, e.g. severe poverty, late enrolment at school, etc.
- ❖ Be rooted in inappropriate pedagogy, insufficient educators, inappropriate and unfair procedures, etc.
- ❖ Also emerge from disabilities (neurological, physical, sensory, cognitive, etc.).

In most cases (if not all) the learning and development of the learner are hampered by a combination of two or more of the above barriers.



ACTIVITY 2

Here are some comments from teachers at a primary school:

'Schools should be places where every child's educational and social needs are met.'

'Girls are always poor at Maths. They should opt for other subjects.'

'It is important for us to focus on what children can do rather than on what they cannot do.'

'There are differences in the learner population – this is an ordinary part of human experience. It is our responsibility as teachers to cater for and organise for every child.'

'Teachers are already overloaded. Having a child for whom English is a second language in the class will be added stress.'

These aspects alert us to some important aspects of learner diversity. These examples reflect issues related to social justice and to teaching and learning practices.

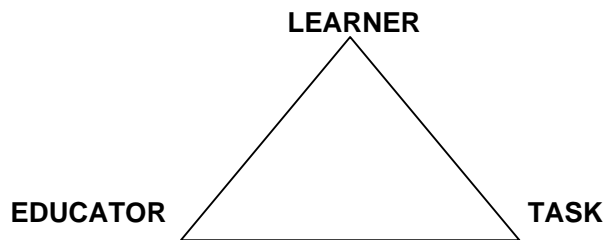
What stereotypical views do you and/or other colleagues hold of how individual learners will perform based on gender, disability, social situation, appearance and family? Can you think of ways to change the views of these colleagues? What can teachers do to show that they value the particular experiences and prior learning of all learners in their classes?

3. Multi-level and differentiated teaching.

It is clear that it is the educator in a classroom who is responsible for providing opportunities for all learners to achieve their full potential. What happens often in the classroom is that educators deliver just one opportunity for learning, assuming that this is a norm against which learners will be assessed. Sometimes they even give new labels to learners: above-average, below-average; as it relates to the perceived norm. And yet, every educator should know that each and every learner in the class is different, learns in different ways, has different interests, talents and strengths, and may experience barriers at different levels and in different areas.

Every learning situation involves an interaction between a learner, an educator and a task (see diagram below). The difficulty is that not all learners in the class are capable of completing the same task at the same time. This is particularly true in the multi-level/grade context where learners are at different age and ability levels. An educator who expects all learners to complete the same task promotes an **exclusive** classroom environment, because only some learners get the opportunity to engage in

a positive learning experience. A strategy to ensure that we promote an **inclusive** classroom environment is to differentiate what we do.



Understanding the Classroom Situation

In both the mainstream and the farm school classroom differentiation is important for a number of reasons:

- Learners are not all at the same level of age and ability.
- Learners come from diverse backgrounds in terms of prior knowledge and school readiness.
- When we differentiate we practise inclusion.
- Educators have an ethical and professional responsibility to ensure that all learners are engaged in a positive learning experience at the same time.
- When we differentiate we practise one of the core principles of learner-centred teaching, i.e. “learner-paced and learner-based”.

In order to assist educators to translate the principles of Outcomes Based Education into effective inclusive practice, the following **approaches** to curriculum adaptation or differentiated curriculum should be followed. This inclusive practice will make it possible to accommodate a range of learning styles, paces and interests.

- **Skills development** relates to areas whereby learners can gain new skills and/or practice. It maintains, combines, refines, transfers or generalises existing skills. It might also involve reactivating skills that have been acquired previously. All skills and experiences that learners bring to the learning process must be considered valuable.
- **Curricular content** can be chosen and paced to extend learners’ access to new areas of experience, knowledge and/or understanding, based on their current strengths and learning needs. What is taught should also be flexible and relevant to the lived reality of the large majority of learners.

What is a differentiated curriculum?

- ♦ It means *knowing* all your *learners* in your class.
- ♦ It is a way of *organising teaching and learning* opportunities that meet the needs, interests, abilities, levels of performance of your learners.
- ♦ It means thinking about what *learners can do*, and what *outcomes* we want them to achieve.
- ♦ It is about finding a *variety of strategies* that will help us, as educators, to cater for learners with different needs or those functioning at different levels.
- ♦ It is about developing *multi-level activities* to cater for the different levels of functioning, different interests, abilities, backgrounds and learning styles of learners.
- ♦ It is about thinking about *teaching, learning and assessment* in *new and different ways*.

- ♦ It allows teachers to be *flexible* in planning for the different aspects of the curriculum (e.g. learning materials, teaching strategies, content of the curriculum assessment methods.)
- **Learning context** (e.g. rural and urban) supports the learning process. Learners can be offered a variety of activities, resources and environments that are appropriate to their age, interests, strengths and prior knowledge and achievements. Learning can also happen in a variety of activities outside the school through projects, work experience, volunteering, etc. These contexts as well as the resources used must make provision for learners with disabilities.
- **Accommodating learners' individual strengths and learning styles at different stages can widen teaching approaches.** Basic learning materials and equipment should be available, and teaching should be supported with appropriate learning aids.
- **Shared learning** is about providing opportunities for learners' participation in the learning process, e.g. in planning or assessment. Furthermore, assessment should take into account the content and level of content which learners have been exposed to, and should use alternative methods to accommodate learners' needs emanating from different barriers to learning and development.
- **Language** (medium of instruction) needs to be accessible to learners;

Example: Most teachers have to teach reading to learners who are learning to read in a language which is not their own. They all come from rich language contexts, where they have been singing and chanting rhymes learnt from their mothers or other community members. Teachers can send a signal that all languages are valued in the class by allowing for all languages to be used in class activities focusing on oral performance or rhymes and songs. All notices in classrooms can also have subtitles in other languages. Interpretation by peers should also be encouraged throughout all activities. In this way the fact that the teacher does not understand the home language of many of her learners can be compensated for.

- The participation and involvement of **care givers and families** is essential and needs to be valued.

Example: For any learner with learning difficulties, it is particularly difficult to recall what they have to prepare for homework. Finding a way of communicating with parents and care givers in an effective way, should be a priority for teachers, e.g. by use of a message book or telephone calls. Barriers to learning often emerge from a disjuncture between the school and the home culture. Teachers need to understand the home background of all learners in order to ensure full participation and reduce learning breakdown.

Multi-grade classes

A classroom that accommodates more than one grade (e.g. Grade 1 – 3) is called a multi-grade classroom. Traditionally, the single most articulated difference between a farm school and a mainstream town or city school is the fact that, due to low learner numbers, classes are multi-grade. However, the same principles apply for both multi-level and multi-grade classes.



ACTIVITY 3

Read how these two farm school educators view their situation and discuss which scenario is the most suitable for handling a multi-grade class.

Scenario 1

Educator X says:

“Like most farm school educators, I teach in a multi-grade class. This means that I have to teach three different grades different content at the same time. Each grade sits on their own and are quite aware of the differences between them.”

Educator X has three lesson plans, one for each grade. In this way educator X ensures that all learners are meaningfully engaged in content suitable to their grade. The learners seldom feel as though they are one class.

Scenario 2

Educator Y says:

“I see my multi-grade class as one group of learners who are at different levels of age and ability. I differentiate learning activities so that all my learners are meaningfully engaged at the same time. Come to think of it, my learners are unaware that they are in separate grades.”

Educator Y has one plan with differentiated learning activities that are suitable to each grade in the class. The learners experience the class as one inclusive environment.

Multi-level activities

Multi-level activities refer to learning activities that provide an opportunity for learners to work at their own level of experience through integrating assessment and instruction. The focus is always on a key knowledge, skill, attitude or value but the teacher can use varied approaches, teaching and learning models and levels within a lesson. These variations can be in terms of knowledge, skills, attitudes or values, methods of gathering information or in learner activities. Multi-level activity can also be designed for a particular learner, based on his prior knowledge and experiences and then build on those.

To develop a multi-level activity, the teacher needs to identify the purpose of the activity (learning outcome). Then she proceeds to plan a variety of tasks

1. at different levels of difficulty or complexity
2. with different numbers of steps
3. with different ways for learners to learn the concept or skill
4. with a choice of 'products' that allow learners to show how they understand the concept.

The different levels are suggested by the assessment standards which show progression within a grade and from one grade to the next. For a grade six learner with a barrier for example, a grade four assessment standard would be used as a basis for the activity.

We need to think about differentiation when we plan, when we carry out our lessons and when we assess. Therefore, we differentiate our *activities*, our *teaching strategies* and our *assessment strategies*. A crucial aspect of differentiation is time management. Learners will not all finish their tasks at the same time. It is necessary to differentiate activities in such a way that slower learners have enough time to finish and faster learners have enough to do without becoming bored.

When planning activities the following steps can be taken to effectively address diversity in the classroom:

1. Clearly state the learning outcome;
2. Identify the needs of the learners;
3. Consider individual past experiences, learning styles and preferences;
4. Plan your instruction to incorporate a variety of learning and teaching styles;
5. Develop questions and activities that are aimed at different levels of ability (using the progression shown in the assessment standards);
6. Modify expectations for some learners including adapted assessment standards;
7. Provide opportunities for a variety of participation levels such as individual, pairs and small group activities;
8. Give learners choices in determining what methods they use for gathering, synthesizing information and in demonstrating their understanding of a concept or performance of a skill or task;
9. Accept that individual and different methods are of equal value;
10. Assess learners based on individual expectations and progress (see nr.3 above);
11. Think about the assessment criteria for each group.

Example: *Multi-level activities were used in a primary school in Upington with the Grade 3 class. About 45 learners were seated in mixed ability groups. They were doing a language exercise. Because the learners were at different levels of reading skills, the educator designed the following tasks:*

- ✓ *Flashcard with words: the learners have to use the words to write sentences where they use the given word. On the other side of the flashcard there is an example of a sentence where the word is being used if the learner has difficulty in creating his/her own sentence.*
- ✓ *Readers: There are a number of readers available for learners. Learners read the books alone or together with a peer.*
- ✓ *Word lists: The educator has copied a sheet of paper for learners to practise sound/letter distinguishing (such as hat, bat, sat).*
- ✓ *Alphabet: Learners name alphabet.*

Some 10 learners worked with the flashcards, about 10 learners read the books, 15 learners went through the word lists and 10 learners worked with the alphabet. In each group, learners were working on different tasks. The educator went around the groups and assured that each learner was on task. She stopped to listen and observe each learner, and gave some more attention to those learners who were working on the alphabet.



ACTIVITY 4

In groups, develop an activity for your learners in your grade (look at the assessment standards).

After completing the activity adapt the activity one level higher (for learners that function on a higher level) and one level lower for learners that function on a lower level).

*R***eflection.**

After completing this section do you:

1. Have an understanding of effective multi-level classroom organization and instructional practices?
2. Understand the challenges facing teaching, learning and assessment in multi-level/grade classes?

SECTION TWO: LEARNING STYLES

OUTCOME:


By the end of this section, participants should be able to explore the ways in which learners learn.

1. Background

Unquestionably, learners come to us with different preferences and different ways of attacking learning tasks. The key question is, "What should we as teachers do in response to these differences?" and perhaps more realistically, "What *can* we do about these differences?"

We believe the concept of learning styles has at least three implications for us as teachers. First, learning styles remind us that we need to vary our instruction and provide varied activities. Alternatives such as individual projects, small-group discussions, cooperative learning, and learning centres provide flexibility in meeting individual differences.


Second, the concept of learning styles reminds us of the need to help learners become aware of the ways they learn most effectively. Third, the concept of learning style reminds us that our learners are different and increases our sensitivity to those differences. With increased sensitivity, we are more likely to respond to our learners as individuals.




ACTIVITY 1

In groups formulate a definition of a learning style.


Identify and discuss the different learning styles in the pictures below.




1.




2.




3.



4.



5.



6.

2. Types of Learning Styles

2.1 What are learning styles?

The term learning style refers to the different ways in which individuals approach learning tasks or receive and process information. It is simply different approaches or ways of learning.

It describes the way a classroom would be organized to respond to the individual needs for quiet or noise, bright or soft illumination, temperature differences, seating arrangements, etc.

It suggests the patterns in which people tend to concentrate best – alone, with others, with certain types of teachers, or in a combination thereof.

It suggests the senses through which people tend to remember difficult information most easily – by hearing, speaking, seeing, manipulating, writing or note taking, experiencing, or again, a combination of these.

A vast variety of models are used to characterize Learning Styles. Psychologists have identified a number of models of how individuals learn. For example, one model views some learners as field dependent (they tend to perceive patterns as a whole) and others as field independent (they tend to perceive and analyse parts of a pattern separately). Another model identifies certain learners as impulsive (they respond quickly and are not particular about accuracy) and others as reflective (they analyse themselves and their thoughts). Other models include global/analytic, tactual/kinesthetic, and visual/auditory learning styles.

Although learning style theorists interpret the personality in various ways, nearly all models have two things in common:

- A focus on process (process of learning)
- An emphasis on personality

2.2 Different learning style models

2.2.1 Dunn's Model

One learning style model developed by Dr. Rita Dunn (1987) of St John's University in New York, classifies learning styles as auditory, visual, tactile and kinesthetic.

Auditory learners

Auditory learners absorb spoken and heard material easily, such as videos and tapes and like to be involved in aural questioning rather than reading materials. They prefer listening to lectures, like discussing and using opportunities to talk about their learning with their peers. They learn best through verbal lectures, discussions, talking things through and listening to what others have to say. Auditory learners interpret the underlying meanings of speech through listening to

tone of voice, pitch, speed and other nuances. Written material may have little meaning until it is heard. These learners often benefit from reading text aloud and using a tape recorder.

Visual learners

Visual learners learn best from information that they see or read, such as videos, films, computers and printed material. These learners need to see the teacher's body language and facial expression to fully understand the content of a lesson. They tend to prefer sitting at the front of the classroom to avoid visual obstructions (e.g. people's heads). They may think in pictures and learn best from visual displays including: diagrams, illustrated books, overhead transparencies, videos, flipcharts and handouts. During a lecture or classroom discussion, visual learners often prefer to take detailed notes to absorb the information.

Tactile learners

Tactile learners learn best from handling materials, writing, drawing, and being involved with concrete experiences.

Kinesthetic learners

Kinesthetic learners learn best by doing and moving, by becoming physically involved in learning activities that are meaningful and relevant in their lives.

Tactile/Kinesthetic learners

These learners enjoy role-play and simulations and like the freedom and opportunity to move about in the classroom. They learn best through a hands-on approach, actively exploring the physical world around them. They may find it hard to sit still for long periods and may become distracted by their need for activity and exploration.

To help learners cope with their learning disabilities, it is important to identify their learning style. Once they have figured out the way they learn, they will need to use specific strategies to fit into their way of learning. Here are some **practical suggestions** pertaining to each learning style:

Auditory learners:

- ⦿ Participate in class discussions/debates.
- ⦿ Make speeches and presentations
- ⦿ Use a tape recorder during lectures instead of taking notes.
- ⦿ Read text aloud.
- ⦿ Create musical jingles to aid memorization.
- ⦿ Discuss your ideas verbally.
- ⦿ Dictate to someone while they write down your thoughts.
- ⦿ Use verbal analogies and story telling to demonstrate your point.

Visual learners:

- ™ Use visual material such as pictures, charts, maps, graphs, etc.
- ™ Have a clear view of your teachers when they are speaking so you can see their body language and facial expression.

- ™ Use colour to highlight important points in text.
- ™ Take notes or ask your teacher to provide handouts.
- ™ Illustrate your ideas as a picture or brainstorming bubble before writing them down.
- ™ Write a story and illustrate it.
- ™ Use multi-media (e.g. computers, videos, etc.)
- ™ Study in a quiet place away from verbal disturbances.
- ™ Read illustrated books.
- ™ Visualize information as a picture to aid memorization.

Tactile/Kinesthetic learners:

- ☞ Take frequent study breaks.
- ☞ Move around to learn new things (e.g. read while on an exercise bike, mould a piece of clay to learn a new concept).
- ☞ Work in a standing position.
- ☞ Use bright colours to highlight reading material.
- ☞ Dress up your workspace with posters.
- ☞ If you wish, listen to music while you study.
- ☞ Skim through reading material to get a rough idea what it is about before reading it in detail.

2.2 Kolb's Model

Kolb classifies seven styles of learning.

Linguistic learner

- Likes to read, write and tell stories.
- Is good at: memorizing names, places and dates.
- Learns best by: saying, hearing and seeing words.

Logical/Mathematical learner

- Likes to: do experiments, figure things out, work with numbers, ask questions, explore patterns and relationships.
- Is good at: maths, reasoning, logic and problem solving.
- Learns best by: categorizing, classifying and working with abstract patterns/relationships.

Spatial learner

- Likes to: draw, build, design and create things, daydream, look at pictures/slides, watch movies and play with machines.
- Is good at: imagining things, sensing changes, mazes/puzzles and reading charts.
- Learns best by: visualizing, dreaming, using the mind's eye and working with colour/pictures.

 **Musical learner**

- Likes to: sing, hum tunes, listen to music, play an instrument and respond to music.
- Is good at: picking up sounds, remembering melodies, noticing pitches/ rhythms and keeping time.
- Learns best by: rhythm, melody and music.

 **Bodily/kinaesthetic learner**

- Likes to: move around, touch and talk and use body language.
- Is good at: physical activities (sports/dance/acting) and crafts.
- Learns best by: touching, moving, interacting with space and processing knowledge through bodily sensations.

 **Inter-personal learner**

- Likes to: have lots of friends, talk to people and join groups.
- Is good at: understanding people. Leading others, organizing, communicating, manipulating and mediating conflicts.
- Learns best by: sharing, comparing, relating, cooperating and interviewing.

 **Intra-personal learner**

- Likes to: work alone and pursue own interests.
- Is good at: understanding self, focusing inward on feelings/dreams, following instincts, pursuing interests/goals and being original.
- Learns best by: working alone, individualized projects, self-paced instructions and having own space.

2.3 The 4MAT System

The 4MAT System was developed by Bernice McCarthy. This is just an overview of this system.

Inherent in the 4MAT System are two major premises:

1. people have major learning styles and hemispheric (right-mode/left-mode) processing preferences; and
2. designing and using multiple instructional strategies in a systematic framework to teach to these preferences can improve teaching and learning.

The instructional sequence suggested by McCarthy teaches to four styles using both right- and left-brain processing techniques.

The four learning styles identified by McCarthy are:

Type 1: Innovative learners

They are primarily interested in personal meaning. They need to have reasons for learning – ideally, reasons that connect new information with personal experience and establish that information’s usefulness in daily life. Some of the many instructional modes effective with this learner type are cooperative learning, brainstorming, and integration of content areas (e.g. science with social studies, writing with the arts, etc.)

Type 2: Analytic learners

They are primarily interested in acquiring facts in order to deepen their understanding of concepts and processes. They are capable of learning effectively from lectures, and enjoy independent research, analysis of data, and hearing what “the experts” have to say.

Type 3: Common sense learner

They are primarily interested in how things work; they want to “get in and try it”. Concrete, experiential learning activities work best for them – using manipulatives, hand-on tasks, kinesthetic experience, etc.

Type 4: Dynamic learners

They are primarily interested in self-directed discovery. They rely heavily on their own intuition, and seek to teach both themselves and others. Any type of independent study is effective for these learners. They also enjoy simulations, role-play, and games.

Teachers are encouraged to use as many modalities and learning styles in their teaching in order to accommodate and reach as many learners as possible. Observing and assessing learners as they work and interact with their peers are also valuable tools and it helps us to get to know them better. Knowing the learners and consciously and strategically planning to address their learning preferences will increase the chances of engaging them in a variety of ways to learn.

If a teacher teaches and assesses in only one cognitive mode, he/she is adequately serving only those students who prefer to learn in that mode. To give every learner the opportunity to succeed, teachers should also become aware of their own learning style preferences and of how those preferences affect their teaching methods.

“Teaching to style represents a philosophical change from tradition to a mutual embrace of accountability: *If learners don’t learn the way we teach them, then we will teach them the way they learn.*” (Carol Marshall, Director/Education, The Centre for Slower Learners, Dallas).



ACTIVITY 2

This chart will help you determine your learning style (and can also be adapted to determine your learners' learning style). Read the word in the left column and then answer the questions in the successive three columns to see how you respond to each situation. Your answers may fall into all three columns, but one column will likely contain the most answers. The dominant column indicates your primary learning style.

When you ...	Visual	Auditory	Kinesthetic/Tactile
Spell	Do you try to see the word?	Do you sound out the word or use a phonetic approach?	Do you write the word down to find if it feels right?
Talk	Do you dislike listening for too long? Do you favour words such as <i>see, picture, and imagine</i> ?	Do you enjoy listening but are reluctant to talk? Do you use words such as <i>hear, tune, and think</i> ?	Do you gesture and use expressive movements? Do you use words such as <i>feel, touch, and hold</i> ?
Concentrate	Do you become distracted by untidiness or movement?	Do you become distracted by sounds or noises?	Do you become distracted by activity around you?
Meet someone again	Do you forget names but remember faces or remember where you met?	Do you forget faces but remember names or what you talked about?	Do you remember best what you did together?
Contact people on business	Do you prefer direct, face-to-face personal meetings?	Do you prefer the telephone?	Do you talk with them while walking or participating in an activity?
Read	Do you like descriptive scenes or pause to imagine the actions?	Do you enjoy dialogue and conversation or hearing the characters talk?	Do you prefer action stories or are not a keen reader?
Do something new at work	Do you like to see demonstrations, diagrams, slides, or posters?	Do you prefer verbal instructions or talking about it with someone else?	Do you prefer to jump right in and try it?
Put something together (constructing something)	Do you like directions and follow diagrams?	Do you like someone explain to you how to do it?	Do you ignore the directions and figure it out as you go along?
Need help with a computer application	Do you seek out pictures or diagrams?	Do you call the help desk, ask a neighbour, or growl at the computer?	Do you keep trying to do it or try it on another computer?

Adapted from Colin Rose (1987). Accelerated Learning

Apart from the learning style, there are other factors that effect learning.

Factors influencing learning styles at home or school.

Environmental

- Sound (quiet/ noisy)
- Light (dim/ bright)
- Design structure (spacious/ cramped)
- Classroom arrangement (formal/ informal seating arrangement)
- Temperature (hot / cold)

Physical

- Time of day (morning, afternoon or evening)
- Intake (with food/ without food)
- Mobility (sits in seat/ needs to walk around)
- Perceptual (auditory/ visual)

Psychological

(how they process information)

- Global/ Analytical (sees things as a whole/ breaks them down into parts)
- Hemisphericity (right brain/ left brain)
- Impulsive/ reflective (acts without much forethought/ thinks before acting)

Emotional

- Motivation (intrinsic/ extrinsic)
- Structure (needs help to generate ideas/ has own ideas)
- Persistence (remains on task/ easily distracted)
- Responsibility (takes responsibility/ lacks responsibility)

Sociological

Preference for working:

- Alone
- Pair
- Team
- Adult
- Varied

3. Responding to differences in learning styles

For teachers, research on learning styles highlights the importance of using a variety of instructional strategies, encouraging learners to approach their learning tasks in their preferred styles, and varying the methods employed to assess learning. The notion of differences in learning styles also highlights the importance of developing diverse learning programmes with varied instructional strategies and resources for different learners. It also requires implementing diverse methods of assessment and giving individuals enough time and opportunities to succeed.

Reflection:

After completing this section would you be able to:

1. Identify the different learning styles?
2. Help learners to become aware of the ways they learn most effectively?

SECTION THREE: COOPERATIVE METHODOLOGIES

OUTCOME: Demonstrates an understanding of a variety of cooperative and methodologies and how to apply them in the classroom.

Learners enter into the process of learning not by acquiring facts, but by constructing their reality in social exchange with others.

Nina Wallerstein, 1978

INTRODUCTION

Teaching methodologies are a combination of teachers' personalities, their competence and teaching expertise. What works for one teacher may not work for another – the same is true for different classes. The more traditional approaches like lectures and question-answer still have their place in the classroom, depending on the purpose of the activity. While they are transmission-type methodologies, they can still be put to good use when dealing with highly specialised concepts and/or skills, for example.

NOTE

A teacher is not limited to the use of only one methodology in a lesson, but can juggle methodologies to put them to most effective use to bring about successful learning.

While many methodologies do exist, time and space limitations only allow a small selection of methods to be presented in this guide. Participants must be encouraged to extend their knowledge base and skills to embrace the wide repertoire of classroom methodologies which lend themselves to the implementation of the RNCS.

1. COOPERATIVE LEARNING

OUTCOME: Demonstrates an understanding of cooperative learning strategies and the application thereof.

INTRODUCTION

The development of a positive, supportive classroom climate is fostered using cooperative learning techniques. Its inclusive nature ensures that each learner, regardless of capability, benefits from the regular classroom program. Using cooperative learning techniques encourages learners to be accountable for their own learning and provides them with skills such as conflict resolution, negotiation, group decision making, asking questions for clarification, and respecting the opinions of others – skills that will be of lifelong benefit.

One of the ways in which participative teaching can be introduced in the classroom is by using cooperative learning which promotes participation. Cooperative learning is a way of teaching in which learners work together to ensure that all members in their groups have learnt and assimilated the same concept. In cooperative learning, groups are organised and tasks are structured so that learners must work together to reach a goal, solve a problem, make a decision or produce a product. Cooperative

learning involves learners working together and being responsible for both their own and each other's learning.

It can be used to:

- Get learners to teach other learners, i.e. interdependent learning
- Address social interpersonal needs (through working with others)
- Accommodate face-to-face interaction
- Address individual accountability of learners
- Affirm learning
- Accommodate group assessment
- Encourage autonomy of learning
- Share responsibility and/or divide labour in the learning process

One of the models of cooperative learning is based on the following principles:

- ◆ the principle of positive interdependence;
- ◆ the principle of interpersonal skills (social skills acquisition);
- ◆ the principle of distributed leadership;
- ◆ the principle of heterogeneous grouping;
- ◆ the principle of group autonomy.

Cooperative learning is a very structured way of learning. When introducing it to learners for the first time, teachers will have to be very patient because the learners will experience it as something new and may react slowly. Teachers must be flexible so that when one of the methods of cooperative learning does not produce the required or expected results, they will change to another.

Some guidelines for using cooperative learning:

- ▶ The classroom must be arranged to encourage co-operation among group members. Therefore, seating must be clustered and must allow for easy access to learning materials like textbooks and where available, pictures and charts.
- ▶ When setting outcomes the teacher must set them in such a way that group and individual results are emphasised.
- ▶ Learners must be taught to share responsibility through the division of labour. They must also learn to share ideas and resources. Supportive behaviour must be encouraged.
- ▶ Teachers must monitor the progress of both individuals as well as that of the group as a whole. After a task has been completed through cooperative learning and the groups have achieved good scores, the teacher should give individual homework which will reinforce the cooperative task and also show the progress made by each individual.
- ▶ When forming groups, be sensitive to issues like gender, ability, learning styles, number of group members, e.g. not more than 6 - 10 members per group.

Cooperative strategies include, amongst others:

- Round Robin
- Jigsaw
- Co-op – Co-op
- Numbered heads together
- Pairs
- Hot Potato

Note:

Traditional group work differs from cooperative group work in that the learners acquire specific skills needed to work with others in cooperative activities

Advantages of cooperative learning include, amongst others:

- Greater social support
- Development of positive self-esteem
- Greater social competencies
- Greater motivation to achieve and intrinsic motivation to learn
- Positive attitudes towards teachers, learning areas and learning
- Positive acceptance and supportive behaviours with others
- Higher level of reasoning, deeper understanding and more critical thinking
- Greater impact on individual learner achievement

**ACTIVITY 1: ROUND ROBIN**

The facilitator does the following round robin activity with the participants:

Grade 3: English Home Language

Learning Outcome 4 – Writing

Assessment Standard: Use capital letters appropriately.

Outcome: After this activity learners should be able to know when to use capital letters.

Use information sheet 1 (Round Robin) and follow the steps.

Task: When do we use capital letters?

**ACTIVITY 2**

The facilitator divides participants into Learning Area groups. Give one cooperative strategy per group (depending on the number of participants, more than one Learning Area may be presented).

Instructions

1. Study the cooperative strategy provided to your group on the loose INFORMATION SHEET.
2. Discuss the strategy within your group to gain a comprehensive understanding of the specific strategy.
3. Plan your group presentation based on a topic from your Learning Area.
4. Each group will give feedback on how they will apply their strategy.

ROUND ROBIN**USES**

- Brainstorming exercise
- Ascertain general level of knowledge of learners
- Revision work
- Generate information or data (knowledge)
- Look for meanings (comprehension)
- Explore options

ADVANTAGES

- No group member can dominate the process
- All learners are kept on task all the time
- Contributions of individuals are affirmed
- Ideas offered by others stimulate new ideas
- All group members feel inclined to contribute
- Accommodates the learners
- Caters for both low order and high order thinking

PROCESS

1. Participants work in groups.
2. Individual group members each record their own responses to the same problem/task on separate sheets of paper.
3. On the signal, rotate the response sheets to the right or left in the group – all sheets must be passed on in the same direction and keep rotating in this direction for the duration of the activity.
4. The next group member adds a further response to the response sheet without repeating what has already been recorded there.
5. The rotation of sheets around the group continues until the sheets arrive back at the original recorder or all ideas dry up.
6. Allow participants to spend 30 seconds to 2 minutes per sheet depending on the level of thinking required on the part of the learner in the activity.
7. Use a relevant signal to indicate when to rotate sheets in the group.

COOPERATIVE STRATEGIES**INFORMATION SHEET 2**

JIGSAW

USES

- Covers several topics simultaneously
- Participant does the actual teaching

ADVANTAGES

- Cover a large amount of information over a short period of time
- Encourages use of communication skills
- All participants contribute to the learning
- No one participant dominates the group

PROCESS

1. Facilitator divides the section of work to be learnt (knowledge, skills, processes, etc.) It is divided into component parts prior to the learning experience.
2. Divide participants into small groups (4 to 6 members) called HOME GROUPS and allow them to number themselves sequentially starting at 1 – it is helpful (but not essential) if the number of people in a HOME GROUP matches the number of sections into which the learning has been divided. If this cannot be done, arrange for two people from a group to study the same section of work (i.e. both allocated the same number in the group).
3. Participants with the same number in the different HOME GROUPS now meet in new groups called EXPERT GROUPS. Each EXPERT GROUP receives a separate section of the learning on which all persons in that group becomes an *expert*. This is done by discussing the allocated material, ensuring that they understand it fully, agreeing on the meaning of concepts, mastering any skills and identifying key aspects of the learning.
4. EXPERT GROUPS next discuss what to teach and how to teach the material to their HOME GROUP.
5. After the specified time, participants return to their HOME GROUPS. The facilitator indicates the sequence in which the various sections of the material will be taught. A fixed time is given for each *expert* in turn to teach the group what he/she has learnt.

NOTE

RESPONSIBILITY: *The only way in which peers can learn the other sections of work is to listen actively to each expert. Each person is responsible to ensure that she/he understands clearly and learns any skills or processes accurately, and to assist others within the group to do the same. The expert has the responsibility not only to teach effectively, but also to deal with queries and to check that all in the group have learnt well.*

ASSESSMENT: *The facilitator may ask questions randomly to check for learning, or assign an exercise or set a test. This could be done individually or in pairs. If necessary, remediation can be done in the light of the results.*

GROUP REVIEW: *Members in each home group should review how effectively they taught and learnt from each other and how to improve the process next time.*

NUMBERED HEADS TOGETHER

USES

- Facilitator asks questions to assess whether learning is taking place
- Ensures the involvement of each learner
- Promotes interdependence and co-operative action

ADVANTAGES

- Learner is compelled to engage with the learning
- Develops individual accountability
- Positive interdependence is fostered
- Promotes cooperative interaction among the participants

PROCESS

1. Learners work in groups. Each person in the group is numbered consecutively, *i.e. 1, 2, 3, ... and so on.*
2. The teacher poses a question or problem or asks for a skill to be demonstrated.
3. The teacher asks the learners to “put their heads together” in their group to work out the answer, and to ensure that everyone in the group understands and knows it (or can do it), and is able to answer or demonstrate correctly on behalf of the group.
4. The teacher calls a number and indicates a specific group. The person identified in this way must respond. A correct or appropriate response is affirmed and praised; if the answer is incorrect, the teacher holds the whole group responsible for not clarifying the answer and ensuring that each of its members understands and can present it.

NOTE

- ☞ *Positive interdependence* is built in: if any member in the group knows the answer, the knowledge, understanding and/or ability of the whole group are extended.
- ☞ *Individual accountability* is built in: assistance from peers is confined to the *heads together* step. Learners know that once a number has been called, that person is on his/her own. The high achievers share answers because they know their number might not be called and they want their group to do well. Lower achievers listen carefully because they might be the one called on to give an answer.

COOPERATIVE STRATEGIES

INFORMATION SHEET 4

CO-OP –CO-OP

USES/ADVANTAGES

- Gets participants to work together in groups
- Produces a group product on a topic which participants have selected
- Gets participants to teach to the whole “class”, with each member of a group making a particular contribution.

PROCESS

1. The facilitator identifies a topic to be investigated and establish groups:
2. The facilitator states a broad topic in the form of a question or problem.
3. Participants brainstorm various aspects of the question concerning problems that interest them. They are expected to say what they would like to know about it and not what they do know about it.
4. The whole “class” examines these aspects and classifies them into categories which will become the topics which different groups will investigate.
5. Participants choose to join the group which will investigate the topic which interests them most. While group sizes will differ, the facilitator must intervene if any group is unwieldy.

Plan the group investigations:

Each group draws up its research questions and plans its course of action. Participants decide who will do what (individually or in pairs) and how. The group considers these plans and contributes further ideas or resources. The facilitator is invited to do the same.

Carry out investigation: prepare the report and presentation/demonstration:

Groups gather information, analyse and evaluate data, acquire new skills, draw up conclusions or findings, report progress and maintain contact with the facilitator. They keep their focus on the main question or problem. They decide in what form/manner to present or demonstrate their acquired knowledge/skills and findings to the whole class.

Present the report:

If possible, the whole group should take part in the presentation or demonstration and be as creative as they can. Their main aim is to teach their knowledge, skills and findings to everyone. Their success will lie in the measure or learning gained by all.

Assess the process, the product and their learning:

The method and criteria for assessing group products, their presentations or demonstrations and the learning of all must be determined early in the process with participants sharing in these decisions. They must also assess their personal skills and their group’s effectiveness in the process of planning, investigating and presenting their topic.

COOPERATIVE STRATEGIES**INFORMATION SHEET 5****PAIRS****USE**

Gets two participants to work as pair partners

ADVANTAGES

- Learners are fully engaged with the learning
- Interaction takes place with each other: assist, check and consolidate their learning

POSSIBLE PAIRINGS**Co-operative pairs:**

Learners can be paired as partners for the whole or for sections of the learning activity, and be called on to work with each other in a variety of ways to promote, consolidate and assess their learning.

Examples include:

- *When a task is assigned, the pair discusses what must be done, clarifies uncertainties, shares how each will tackle the task and makes helpful suggestions to each other.*
- *If a skill must be acquired they assist each other in doing so, helping to overcome difficulties or obstacles, and checking each other's progress.*
- *After completing an exercise they compare answers for accuracy and trace any errors that may have occurred.*
- *When the facilitator presents new concepts or information, or demonstrates skills or procedures, pair partners can be asked to explain them to each other to check for understanding or competence, to identify key points or steps, or to consolidate what has been learnt.*

Think-pair-share:

The facilitator asks all participants to think on their own about a topic, respond to a question or brainstorm for ideas. The two people who make up a pair then share their ideas with each other. One of them is invited to share their findings with the whole class.

Pairs check:

Within a group of 4 or 6 people, participants work in pairs. One solves a problem or responds to a question while the other coaches, prompts, plays devil's advocate, etc. They exchange roles for the next problem or question. Then as a pair they compare their answers with the other pairs in their group to ensure that they are correct, and to sort out any discrepancies.

<i>HOT POTATO</i>

USES

- Brainstorming exercise
- Generating information
- Exploring alternative solutions to problems

ADVANTAGES

- Keeps the learning process moving quickly, hence the label 'Hot Potato'
- Addresses a variety of related problems/ tasks
- Encourages most learners to stay on task most of the time

PROCESS

1. Equip each group with a sheet of paper and Koki.
2. The group reads and clarifies a problem/task and discusses possible responses to the problem/task (which differs from group to group) and records their response(s) on the paper (appoint scribe).
3. On the signal, rotate the papers to the group on the right or left (keep rotation going in same direction throughout activity).
4. The group now reads and clarifies a new problem/task, then discusses possible responses on the paper.
5. The papers rotate until each group has dealt with each problem/task
6. Wrap up by displaying sheets of paper on the wall for all to study on a walkabout or for class discussion – alternately a smaller group of learners can be tasked with the writing up of a final report of responses to problems/tasks for the class.

2. PARTICIPATIVE LEARNING

OUTCOME: Demonstrates an understanding of participative learning strategies and the application thereof.

INTRODUCTION

Research and experience have shown that for all learners, learning activities in which they participate actively and engage in the learning themselves (knowledge, concepts, skills, values, attitudes) are significantly more powerful in leading to changes in behaviour than practice and lectures, talks, presentations and show and tell methods.

Often cooperative learning strategies are used to teach each other knowledge and skills. This achieves full participation by everyone and promotes ownership of the learning. The material needs to be designed specifically to enable these strategies to be used effectively.

The hands-on approach allows learners to practise skills and model behaviours which they can use in everyday life. They learn from teaching each other and sharing ideas and approaches. They gain confidence to extend their competence and develop their repertoire of life skills.

In classrooms where teachers employ a participative approach to teaching, the teaching-learning relationship between teachers and learners is dynamic rather than static and predictable. There are times when the teacher is at the forefront and teacher-talk and activity predominate, and times when learners are at the forefront, and learner-talk and activity predominate.

Participative learning demands that the class be designed and managed in a manner that encourages learners to express their own views on the content without fear of intimidation from either the teacher or peers. The concept of participative learning is based on the assumption that significant learning occurs when:

- each individual learner is given an opportunity to express what he/she makes of the learning content presented to him/her;
- expression of one's views does not meet with destructive criticism from teacher or peers;
- the notion that for every question there exists a single 'correct' answer is discarded and instead uninhibited exploration of all possibilities with regard to learning content is promoted;
- learning by enquiry balances reception learning (reception learning occurs when the teacher [or textbook] is the main source of information). Learning by enquiry forms the backbone of participative learning.

The following are some conditions which may enhance participative learning:

- flexibility;
- relevance of content to real-life situations;
- democratic learning climate;
- spirit of co-operation;
- individual responsibility; and
- empowerment.

The following are examples of participative methods:

- discussions

- role play
- question and answer
- project
- problem solving

BACKGROUND INFORMATION ON PARTICIPATIVE METHODS FOR FACILITATORS

DISCUSSIONS

Cooperative learning is based on discussion.

Different types of discussion include, amongst others:

- Debate: take a stand
- Problem solving: recommends solution
- Explaining: reasoning about existing situations
- Predicting: forecast likely results
- Debriefing: learners share experiences

Requirements for effective discussion

- ✘ Meaningful topic
- ✘ Full participation of all learners
- ✘ Free expression of own ideas
- ✘ Leadership
- ✘ Development of skills, such as introducing the topic, summarising, etc.

ROLE PLAY

Role play involves the acting out of imaginary situations. The methods include amongst others:

- dramatisation; read or act out roles from a written script – this can be applied in all learning areas
- socio-drama; re-enactment of real-life situations which are accompanied by discussion to teach life skills, like social responsibility, etc.

PROJECT METHOD

The teacher and or the learner can generate the topic for a project. A project needs to focus on problem-solving to encourage learners participation. It is the task of the teacher to provide the learners with clear instructions, the process to be followed, resources needed, due dates, assessment procedure and criteria for assessment.

Learners can undertake such tasks as individuals or in groups. The teacher must make sure that they are available to provide learners with direction.

QUESTION AND ANSWER

Questioning is a common tool which is used in the classroom. Questions can be used to link prior learning to new experiences, to focus attention of learners to topic of presentation, to arouse interest, to stimulate curiosity, check understanding, assess progress, and to emphasise main issues.

Teachers must structure questions and possible answers prior to teaching and learning experiences.

Types of questions:

Closed Questions: = lower order, recall
 = Test attainment of learning outcomes
 = e.g. Who is the president of South Africa?

Open Questions: = higher order, productive
 = stimulate thought and insight, usually involving why? how?
 = e.g. Why is the crime rate so high in South Africa?

Questioning techniques:

Effective questioning relies on an effective questioning style which includes a variety of question and techniques used to ensure:

- Maximum learner participation
- An increased level of understanding of Learning Area content
- Development of a wide range of skills e.g. critical thinking etc.

A questioning technique consists of three stages:

- Posing of question by teacher
- Response to questions by learners
- Reaction to learner's response by teacher and other learners

Note:

The third stage, i.e. reaction, is as important as the first two stages. Teachers who fail to react in a sympathetic way to learner's responses can put their learners off wanting to respond again.

PROBLEM-SOLVING

This method encourages the teacher to explore solutions to problem solving situations. It requires of the learners to seek information and process it, applying their discovered ideas. It focuses on the development of learner's thinking and reasoning skills, thereby stimulating curiosity.

Reflection

Would you be able to apply cooperative methodologies in the classroom?

Can you apply your knowledge of learning styles and co-operative methodologies in a multi-level class?

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