

Education District Office: North

Instructional and Management Strategies for Differentiated Assessment





Bridget Goosen 2 June 2021



How Assessment FOR Learning fits into the whole scheme of assessment?

The Practice of Differentiated Assessment





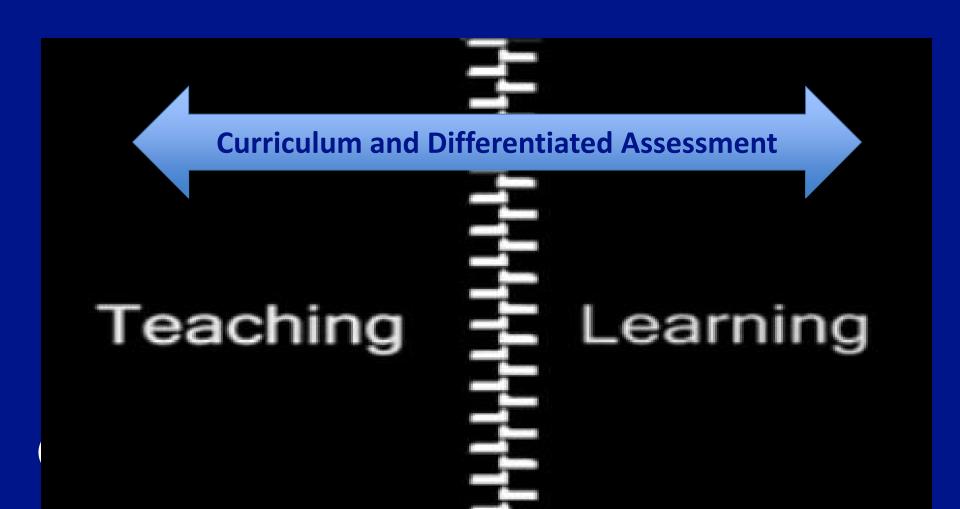
What Is Assessment OF Learning?

Assessment OF learning refers to as SUMMATIVE ASSESSMENT....

"It is the process by which teachers gather evidence in a planned and systematic way, in order to draw inferences about their students' learning based on their professional judgment and to report at a particular time their students' achievements"



Assessment is the zipper between Teaching and Learning





Differentiated Instruction



INFORMS

LEADS TO



Differentiated Assessment







What Is Differentiated Assessment?

Differentiated assessment is an ongoing process through which teachers gather data before, during, and after instruction from multiple sources to identify learners' needs and strengths. Students are differentiated in their knowledge and skills. They differ in the ways and speeds at which they process new learning and connect it to prior knowledge and understanding. They also differ in the ways they most effectively demonstrate their progress.



Assessment FOR Learning Assessment AS Learning

What is the teacher's role during teaching?







Scenario - Driver 1

- Imagine YOU need to got to Kimberly, by bus from Cape Town.
- You get onto the bus and the driver begins driving north towards Kimberly
- As soon as the trip starts, drivers provides information and rules about the trip
- During the trip, the driver regularly checks if passengers are ok.
- But the drivers does not check any road signs for directions, nor the dashboard for the oil, water and temperature light, nor the tyres.
- The bus reaches the end of the journey, and the driver requires all passengers to leave the bus.
- The driven now checks the engine, the tyres, oil, water, etc. before the next trip.
- Drivers completes and submits trip log to supervisor
- YOU discover you in Bloemfontein! But now YOU must make your OWN way.
- Worse still while driving, the bus gets an oil leak, which the driver does not notice and the engine stalls, and you stranded;







Scenario - Driver 2

- Imagine YOU need to got to Kimberly, by bus from Cape Town.
- You get onto the bus and the driver begins driving north towards Kimberly
- As soon as the trip starts, drivers provides information and rules about the trip
- During the trip, the driver regularly checks if passengers are ok.
- The driver regularly checks the road signs, and even had to make a detour when discovering that she took the wrong offramp.
- The driver also regularly checks the dashboard and had to stop twice: once to refill the oil after noticing the oil light was on, and the second time to refill air after one tyre was a little flat.
- The bus reaches its destination, and you are required to leave the bus.
- The driven now checks engine, tyres, oil, water, etc. before the next trip.
- Drivers fills up oil, water etc depending on what was found during the check up
- Drivers completes and submits trip log to supervisor
- You discover that you have arrived at the correct destination, safely.







Translate the metaphor into the classroom

- Driver = Teacher
- Driving = Teaching
- Bus Instruments = Teacher observations and insights from learner responses and inputs
- Passengers = Learners









PURPOSE OF ASSESSMENT

Obtain evidence

(learning, performance,

knowledge, understanding, skills)









Implications for classroom practice

Classroom

Driver 1 context

Drive north toward Kimberly

objectives

objective

before next

Explain rules of the trip

Does not check dashboard

Talks to and check if passengers are OK

Starts a lesson with specific

Introduces the lesson

Engages with learners

Does not check

End of lesson -

on learners

achieved

effect of teaching

At end of journey, ask passengers to learners have NOT disembark

Now check bus before next trip

Drive completes and submits travel log

results

Summative Assessment results and/or report

lesson/section Teacher records

Implications for assessment

Driver 1	Classroom context
Drive north toward Kimberly	Starts a lesson with specific objectives
Explain rules of the trip	Introduces the lesson
Talks to and check if passengers are OK	Engages with learners
Does not check dashboard	Does not check effect of teaching on learners
At end of journey, ask passengers to disembark	End of lesson - learners have NOT achieved objective
Use of summative assessment "COMPULSORY PRACTICE"	Summative Assessment before next tesson/section
Record and report results COMPULSORY PRACTICE	Teacher records results and/or report results



Implications for classroom practice

Driver 2

Classroom context

Drive north toward Kimberly

Explain rules of the trip

Talks to and check if passengers are OK

Regularly checks dashboard and takes

action when necessary

At end of journey, ask passengers to

disembark

Now check bus before next trip

Drive completes and submits travel log

privers fills oil, water depending on

check up

Starts a lesson with specific objectives

Introduces the lesson

Engages with learners

Regularly reviews effect on teaching, and

adjusts teaching depending on learner

response

End of lesson - learners have achieved

objective

Summative Assessment before next

lesson/section

Teacher records results or report results

Teachers uses results of summative assess to

improve planning before next lesson







Implications for assessment

Driver 2	Classroom context
Drive north toward Kimberly	Starts a lesson with specific objectives
Explain rules of the trip	Introduces the lesson
Talks to and check if passengers are OK	Engages with learners
FORMATIVE ASSESSMENT During the lesson, only teacher & learner –	egularly reviews effect on teaching, and djusts teaching depending on learner
No SMT or district advisor or Provincial official	esponse
actionowineneseasspassengers to disembark	End of lesson - learners have achieved objective
Now check bus before next trip	Summative Assessment before next lesson/section
Drive completes and submits travel log	Teacher records results or report results
Formative use of summative results After the lesson, & before NEXT lesson	eachers uses results of summative assess to mprove planning before next lesson



SMT or district advisor or Provincial official

Driver 1 - in the classroom

- YET that is exactly what we do when teaching
- We teach a lesson, present content, etc, etc
- At the end of the lesson or topic or term, we test learners
- But now its too late to do anything if we discover any gaps in knowledge and understanding
 - As we have to continue with the curriculum etc.







Driver 2 in the classroom

- Similarly, if teacher uses FORMATIVE ASSESSMENT -
- The teacher will constantly check, DURING the journey:
 - how learners are doing,
 - what learners understand and
 - what TEACHERS needs to adjust or change DURING the lesson or before the topic is completed.
- By the time the topic is complete, (most if not all) learners would have achieved the learning outcomes OR the teacher will know which learners still need more assistance

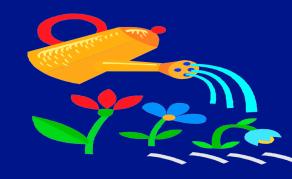






Garden Analogy

If we think of our children as plants ...



Summative assessment - simply measuring plants – (does not affect the growth of the plants)

Formative assessment or Formative use of summative assessment, - feeding and watering the plants grow to their needs – (directly affects their growth)







Clarify definitions & Linkages

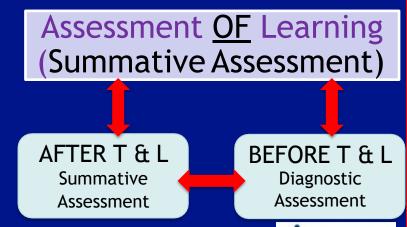
Assessment FOR Learning

Formative Assessment

e nt

Assessment AS
Learning
(Learner driven)

Formative use of summative evidence









Practice of Assessment FOR learning









Start with Formative use of summative Evidence

You are very familiar with this in the classroom and can implement it tomorrow already

Provincial Evaluations or Exams

- 1. Improve reporting format
- 2. Additional analysis at classroom, school, teacher levels
- 3. Provide tools to support analysis









REPORTING Format Most critical challenge

RATING CODE	PERCENTAGE	DESCRIPTOR
Level 1	0–29	Not achieved
Level 2	30–39	Elementary achievement
Level 3	40–49	Moderate achievement
Level 4	50–59	Adequate achievement
Level 5	60–69	Substantial achievement
Level 6	70–79	Meritorious achievement
Level 7	80–100	Outstanding achievement









Grade 2 Matehematics Total Learners sampled

This chart provide information on the percentage of learners in your school that are functioning at each performance level: NA - Not Achieved; PA - Partially Achieved; Ach - Achieved; and Adv -Advanced.

Review the information in the table below to determine what knowledge and skills learners at the NA and PA levels need to be functioning at the Achieved or Advanced levels

Performance Level

NOT ACHIEVED - Learners functioning at this level demonstrate skills and knowledge • recognise familiar shapes in 2-D (on paper)

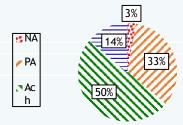
PARTIALLY ACHIEVED Learners functioning • count forwards and backwards in ones at this level demonstrate an observable transition from concrete to abstract CAPS expectations for a grade 2 learner.

demonstrate mathematical competencies to' relationships learner according to the CAPS document.

ADVANCED - Learners functioning at this level demonstrate mathematical competencies that at the top end of the CAPS expectations of a grade 2 learner.

?? Primary School

School / Class ABC



Specific knowledge and skills demonstrated by students:

- · count illustrated pictures of familiar objects
- that are lower than CAPS expectations for arecognise straightforward patterns of multiples of ten visually shown on a number
 - - group less than 10 objects shown in pictures and do correct division
 - add 2-digit whole numbers in context-free operations that involve a single step,
- reasoning but still at the lower end of the arrange given whole numbers in increasing/decreasing order
 - · draw and interpret pictographs
 - understand spatial relations in terms of the position of an object in relation to another in the same space
- ACHIEVED Learners functioning at this level calculate answers that involve understanding 'less than', 'more than' and 'equal
- that match the expectations of a grade 2 interpret and apply information that is given in coded forms such as codes for weather patterns to answer relevant questions
 - understand the concept of 'Place Value' demonstrated in successful subtractions of single-digit from 2-digit whole numbers
 - · read and make correct abstractions from a number line
 - · convert observations into mathematical forms to demonstrate understanding of the "number concept"
 - Estimate and compare the capacity of containers using non-standard measures
 - · place historical events on a calendar
 - · estimate measurement using non-standard measures
 - Estimate and compare mass of objects using scales and non-standard measures
 - · solve money problems that involve totals in Rands and cents
 - •carry out two-step calculations that involve conversions between Rands and cents, e.g. firstly calculating cost of items to purchase and, secondly, calculating change from the transaction

Standards based reporting format

Feedback to teachers to identify strengths and weaknesses of learners

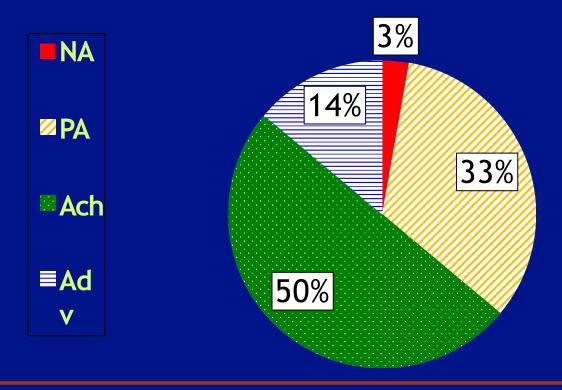








Class Report for Teacher













Differentiated Instruction



INFORMS

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Differentiated Assessment







Information what learner know, understand and can do

Achieved

Student functions largely at 'conceptual' as opposed to 'operational' level & can:

- operate equally well with symbols & numbers;
- make reasonable estimations of spatial dimensions & have 'good sense' of proportion;
- express decimals as comm. fractions & vice versa and do estimations that involve both;
- solve complex problems that involve more than one variable, e.g. money & mass;
- support their viewpoints with valid reasons.







Schools Report

Partially Achieved	
26%	

Student functions largely at 'operational' as opposed to 'conceptual' level & can:

- do simple straightforward operations (+, - & x) that involve whole numbers;
- identify whole numbers on a number line;
- identify regular geometric shapes;
- calculate area & perimeter of rectangles using numbers, not symbols;
- solve problems of one-variable: time/money.

Achieved **27%**

Student functions largely at 'conceptual' as opposed to 'operational' level & can:

- operate equally well with symbols & numbers;
- make reasonable estimations of spatial dimensions & have 'good sense' of proportion;
- express decimals as comm.
 fractions & vice versa and do estimations that involve both;
- solve complex problems that involve more than one variable, e.g. money & mass;
- support their viewpoints with valid reasons.

Advance **11%**

Student functions predominantly at 'conceptual' level & use operations to support reasoning & can:

- Organise & arrange both numbers, variables & functions in logical order to solve problems;
- work efficiently with a wide spectrum of real numbers;
- 'visualise' & operate complex spatial transformations to solve problems;
- support their viewpoints with valid reasons.









School analysis - areas less than 50%

Gr3	Gr 4	Gr 5	Gr 6
Halving	Equivalent Fractions		Equivalent Fractions
Ordering fractions: halves, quarters, thirds	Multiplication	Equivalent Fractions	Ratio
Solves money problems	Division	Rounding off to 5	
Lines of symmetry	Adding Fractions	Ratio	
Two D shapes	Problem Solving	Division	
Time problems (years and months)	24 hour time	Adding Fractions	
Pagagniags 2D shapes		BODMAS	
Recognises 2D shapes		2D shapes	

Similar analysis by years or Districts









What are Diagnostic Tasks?

- A set of items related to a a specific topic or area of content used to obtain evidence of what learners know, understand and/or can do.
- Can comprise of independent items or items related to a specific passage or activity
- Items include both open and close ended
- Items can include performance tasks e.g. read a sentence, or perform a specific task, or solve a problem
- Testlets are administered by teachers
- Testlets can be administered at group or individual level









Next steps for intervention: NA

Question	Skills/competencies assessed Testing whether the learner is able to	Reference (WB or WS)
1.1	Choose the correct multiple of ten.	WB 2 - 5, 30
1.2	Choose the correct prime number.	WSA
1.3	Choose the correct decimal.	WB 94, 95, 170 - 173
2.	Count forwards using decimals (to 3 decimal places)	WB 67, 68, 89
3.	Rewriting a number from words to symbols.	WB 7,8, 54, 102 & 103
4.1	Find the correct number value (in units).	6, 55-57, 104 & 105
4.2	Find the correct number value in (thousands).	,
5.	Find factors of a composite number	WS P
6.1	Rounding off to the nearest 100.	79, 106 - 108









Practice of Formative Assessment









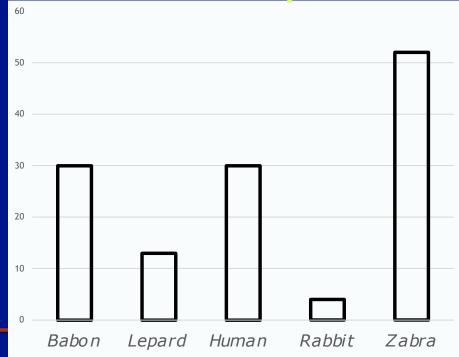
Activity B -

Think about how you will mark learner response to following test question -

Draw a bar graph to represent the information for new born incubation periods (5 marks)

Animal	Time in weeks
Baboon	30
Leopard	13
Human	40
Rabbit	5
Zebra	52

Learner Response









Now would you marking be different if I told you

What am we
learning today?

Evidence I need to produce

- 1.To plot a bar graph
- 1. Each bar must be correctly plotted
- 2. Each bar must be correctly labelled
- 3. The x and y-axis must be labelled
- 4.1 am not interested in spelling







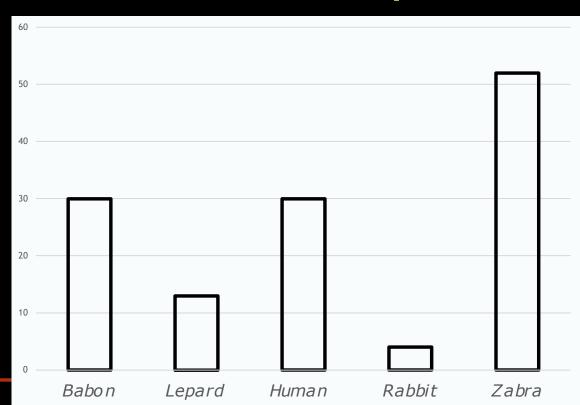


Activity B -

Draw a bar graph to represent the information for new born incubation periods (5 marks)

Animal	Time in
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Learner Response



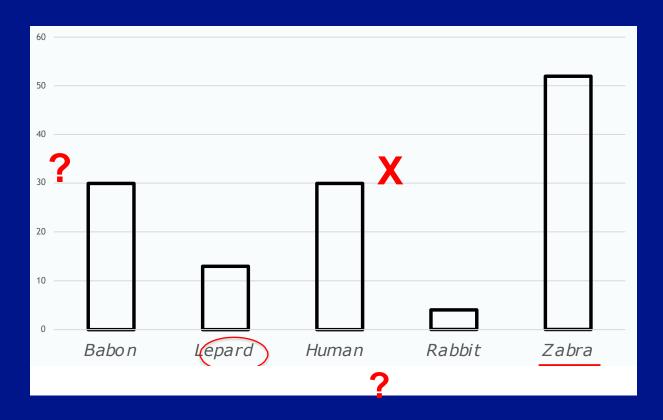






Activity B - Typical Teacher response

Animal	Time in
	weeks
Baboon	30
Leopard	13
Human	38
Rabbit	4
Zebra	52



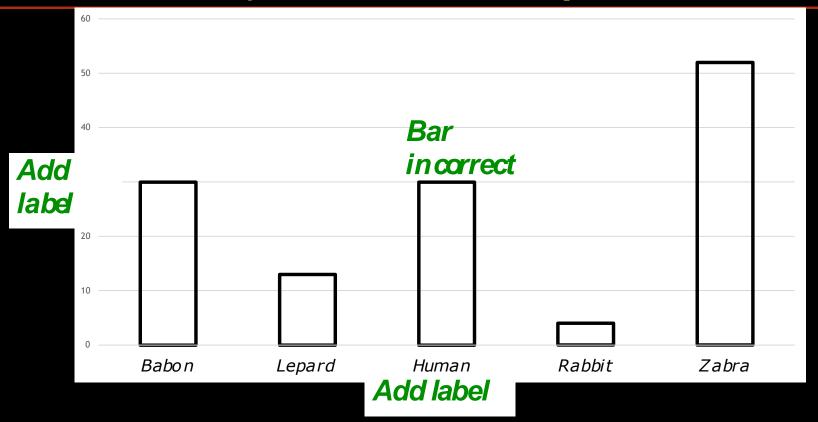








Activity B - Possible response











Activity B - another response



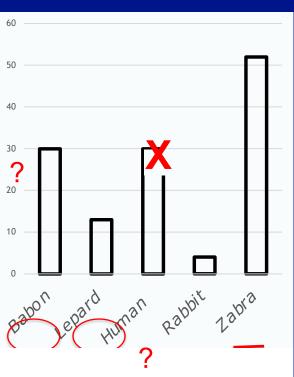


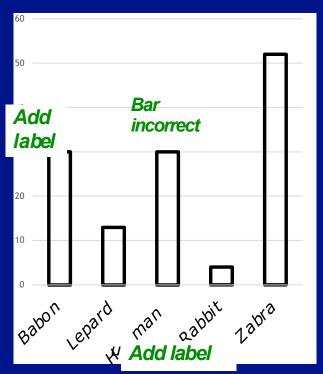


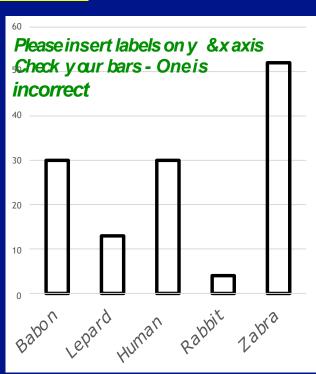




Which type of feedback can the learner respond to with minimum support? Take responses







Feedback A

Feedback B

Feedback C

What is the difference between A, B & C?

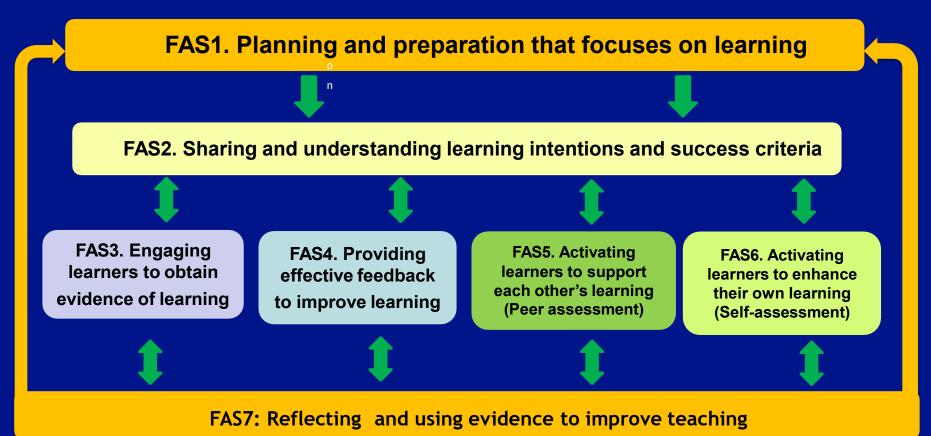








What is the Formative Assessment Approach?











Formative Assessment Strategies

Brief explanation

- 1. Identify "learning" from the curriculum and prepare lessons
- 2. Clarifying and sharing learning intentions, and success criteria with the learners
- 3. Managing effective classroom discussions, tasks, and activities that elicit evidence of learning.
- 4. Providing feedback that moves learners forward
- 5. Activating learners as learning resources for each other Peer Assessment
- 6. Activating learners as owners of their own learning Self assessment
- 7. Reflection for improving teaching and learning

(Derived from Heritage, 2010; Wiliam & Thompson, 2007)









Learning Intentions: what students thought they were learning

Learning intention	Teacher introduct ion	What students thought they were learning now	Clear Success Criteria
We are learning to write instructions	Explains process to make an egg.	To to make an egg	I can follow each step of any set of instructions
We are learning about different colors	Demonstrat es colors of a butterfly	About butterfly	I can correctly identify different colors







Converting LOW cognitive demand into HIGHER questions

Techniques for writing higher order thinking questions

igure 7	Techniques for	r converting	low cognitive demand	into higher	cognitive demand	question

Questioning Technique 1: Give a range of answers

Provide learners with a range of different answers that require learners to think about the most appropriate answer and to explain why they selected that answer.

Low cognitive demand question	High cognitive demand question
What is 4 x 4?	Which is the correct answer if you multiply 4x4? 8, 16 or 24? Explain your answer.

Questioning Technique 2: Convert questions into statements

Convert questions into statements and ask learners to provide their views on the statement.

Low cognitive demand question	High cognitive demand question		
Who are the people that help us in our communities?	Communities need more policemen than nurses. Do you agree or disagree and say why?		

Questioning Technique 3: Present opposite options and ask for reasons

Presenting learners with opposite sides of an issue and asking them to decide which is right and which is wrong challenges learners cognitively.

Low cognitive demand question	High cognitive demand question	
List the clothing that people wear during winter.	Explain why people wear the following types of clothing in winter and in summer: gloves, shorts, thick jacket, t-shirt, sandals, a woollen cap.	

Questioning Technique 4: Learners explain how answer was obtained

Provide learners with answers to the questions and offer an explanation.

Low cognitive demand question	High cognitive demand question
What did Thando do in the story?	Thando was very brave in the story we just read. Explain your answer.

Questioning Technique 5: Ask questions from an opposing viewpoint

Asking questions from an opposing viewpoint can challenge learners to think about different positions on an issue.

Low cognitive demand question	High cognitive demand question
Why do people recycle goods?	Do you think recycling goods is a waste of time and money? Explain your answer.





(exemplar, vignette, exercise)

4.4 FAS 4: Providing feedback that improves learning

In this section we would like you to think about: (i) the kind of feedback you give to learners when you are commenting on their work, either orally or in writing; and (ii) whether your comments are useful to learners to improve their work.

Read the LI and SC for FAS 4 out loud to yourself.

Learning Intentions (LI)	Success Criteria (SC)
We are learning to (WALT)	I know I have achieved the learning intention when I can:
Understand how to use formative assessment strategy 4 (FAS 4), i.e. providing effective feedback that improves learning.	 State FAS 4. Explain procedural, evaluative and descriptive feedback. Use descriptive feedback orally and in writing to improve learning.







Figure 10. Exemplar: Using symbols as feedback

This exemplar shows how symbols can be used to provide different levels of feedback,

All learners have been taught that:

- (i) the means there is one error in the calculation
- (ii) they must find the error and
- (iii) they must correct the error.

The nature and format includes:

- The circle () shows the incorrect calculation. The learner must correct the error.
- b. The dot only shows the step that contains the error, but not the incorrect calculation. The learner must first find the error and then correct it.
- c. The two dots • at the bottom indicate that two errors have been made. The learner must first find the step(s) in which the errors were made, find the incorrect calculations, and then make corrections.

Read the following scenario regarding feedback and answer the questions that follow.

- WALT: Write a paragraph.
- I can: Write a paragraph about the picture.

Write the first sentence that tells the reader what the paragraph is about.

Write a paragraph of four sentences.

After introducing the LI and SC and making sure the learners understand the LI and SC, Mrs Mokgosi asks learners to cut out one picture from their magazine. She then asks them to write a paragraph based on what they see in the picture.

While learners are cutting out their picture, Mrs Mokgosi notices that Zama has cut 3 pictures, and says, "Wow, you have 3 pictures. Now you can select the best one to write your paragraph." Other learners hear this and now pick up their scissors again and start looking through the magazine for other pictures to cut out.

A few minutes later, Mrs Mokgosi praises Qetelo as follows: "Very neat handwriting, Qetelo. I am glad that you are taking your time". Some learners now begin to rewrite the paragraph, and to write slowly to ensure that their handwriting is also neat.

The learners realise that the LI and SC are not important. Learners now ignore the SC and begin to focus on what they hear the teacher is saying.





Feedback Techniques

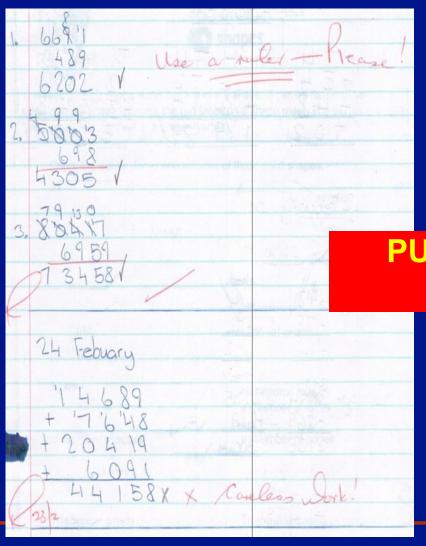
Symbol	Meaning
•	There is one error which you need to find and correct.
٨	There is some information missing, which you need to add.
sp	Find and correct the spelling error.
p	Find and correct the punctuation error.
22	You need to get support from your partner or parent.
(<u>t</u>)	You may need more time to understand this work.

Example: Feedback symbol sheet used by teachers





Exemplar typical marking approach



Use a ruler PLEASE!!!

PULL UP YOUR SOCKS?

X Careless
work











Name sticks: Used by teachers to randomly select learners to participate in class



want to ask a question



"No hands up" is an approach used by teachers to give ALL learners an equal opportunity to participate in classrooms activities. Learners only put their hands up only if they

Thumbs up, Neutral, Thumbs down: Learners use thumbs to indicate their level of understanding



Mini boards: Used by learners to show their responses to teachers



Thumbs Up/Down: Learners use their thumbs to indicate their level of understanding



Phone a friend: Learner calls another learner to assist her or

him

Robots cards: Used by learners to show their level of understanding

Think, Pair &

brainstorm or discuss ideas

share: Two

learners



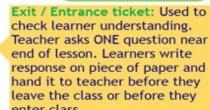


Green—understand

check learner understanding. end of lesson. Learners write response on piece of paper and hand it to teacher before they leave the class or before they enter class

Formative Assessment Techniques

For enhancing greater learner engagement and participation











Differentiating the Assessment strategies





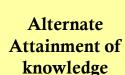
Assessment Accommodations

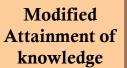
DIFFERENTIATED **TEACHING**



DIFFERENTIATED ASSESSMENT







Grade-level Attainment of knowledge











Differentiated











Various Accommodations

Adaptation of questions, Additional Time Digital Player/Recorder, Braille, Computer, Voice to Text/ Text to Voice, Enlarged Text, Spelling, Handwriting, Medication/ food intake, Rest Breaks, Oral examination, Personal assistant, Prompter, Reader, Scribe, Reader & Scribe, Separate Venue, Sign Language Interpreter, Transcription of Braille, Video/ DVD recorder/ Webcam/ MP#

Examples of Differentiated Assessment

WRITING:

point form, mind maps, outline, sentence, graphic organizers, paragraph, structured passage.

Some learners may choose to demonstrate their learning by writing a report,

while others choose to create a poster,

others choose an oral presentation.

MAKING:

sketch, visual portrayal, model.

SAYING:

discussing, debating, conferencing, skit, role-play.

DOING:

performance, demonstration of skill, routine, procedure, decision making, Problem-solving.







Suggested Differentiated Assessment Strategies

- essay
- speech
- song
- poem
- poster
- skit
- craft project
- Video
- Advertisements

- step-by-step instructions
- PowerPoint
- teach lesson
- multiple-choice*
- fill in the blank*
- creation of test or problems
- application to real life situations







Suggested Differentiated Assessment Strategies

- create a game
- write a
 newspaper or
 magazine
 article
- portfolios
- collage
- web page
- blog

model

story board

invention

notebook

photos

map

letter

experiment

Cartoon

newscast







Differentiated Assessments within LEARNING STYLES

Product Possibilities



VISUAL

Advertisement

Collage

Poster

Flow chart

Venn diagram

Painting

Map

Video

Story map

Timeline



AUDITORY

Audiotape

News broadcast

Speech

Debate

Lecture

Group discussion

Interview

Round table

discussion

Book review

Teach others



WRITTEN

Book report

Letter

Poetry

Research paper

Story

Checklist

Journal

Essay

Newsletter

Survey



KINESTHETIC

A model

Performance of a dance

or skit

Sculpture

Mobile

Diorama

Dramatization

Experiment

Pantomime

Role play

Display

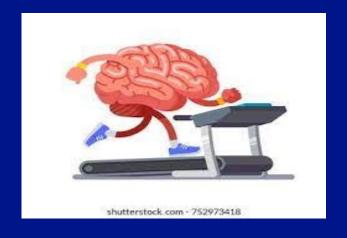


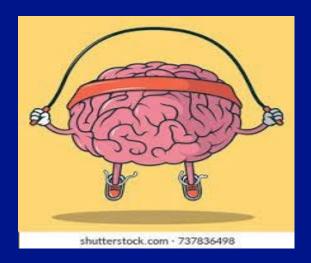




Suggested Differentiated Assessment Strategies CREATE YOUR OWN







YOU will be able to write YOUR own book on Differentiated Assessment







"If a child can't learn the way we teach, maybe we should teach the way they learn."

~ Ignacio Estrada

An Everyday Story



Bridget Goosen Bridget.Goosen@westerncape.gov.za







