



TAJKISTAN
RUSSIA EDUCATION AID FOR DEVELOPMENT (READ) TRUST FUND
Development of Classroom Assessment Package for Primary Grades

Module 2. Formative Assessment Strategies
(Trainer's Guide)

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Module 2. Formative assessment strategies – Training Program

Learning outcomes

After successful completion of this training module candidates will be able to:

- understand what formative assessment involves in practical teaching and learning strategies
- understand that ‘Formative assessment is not a test but a process that produces not a score but a qualitative insight into the learner’s understanding’ [Popham W.J.2008]
- become familiar with a research-based set of formative assessment techniques and methods.

Training resources

- Teacher’s Modules and research publications (see the list below)
- Flipcharts and markers
- Power point presentations (developed by the trainer) if there are appropriate technologies available

Research publications (Translated in Tajik):

- 1) Formative assessment for teaching & learning: Boyle & Charles 2013, SAGE
- 2) David, Mr Bear and Bernstein: Searching for an equitable pedagogy through guided group work. Boyle & Charles 2012. The Curriculum Journal 23 (1) p.117-133
- 3) The missing disciplinary substance of formative assessment. Coffey, Hammer, Levin, Grant 2011. Journal of Research in Science Teaching 48 (10) p.1109-36
- 4) Formative assessment: Revisiting the territory from the point of view of teachers. Morrissette 2011. McGill Journal of Education 46 (2) p 247-64
- 5) From a formative evaluation to a controlled regulation of learning processes towards a wider conceptual field. Perrenoud.1998. Assessment in Education: Principles, Policy & Practice. 5 (1), p.85-102

Agenda

Day 1		
Time	Session title	Session objectives
8.00 - 08:30	Presentation of the Module 2 Program and Learning outcomes	
08:30 – 10:00 (90 minutes)	Session 1. Changing environment and learning culture by using formative assessment	Understand how teachers using formative assessment have changed the environment and learning culture of their classrooms/seminars.
10:00 – 10:30	Break	
10:30 – 12:00 (90 minutes)	Session 2. Making learning more transactional and transparent by using formative assessment	Understand how teachers using formative assessment make learning more transactional and transparent.
12:00 – 13:00	Lunch Break	
13:00 – 14:30 (90 minutes)	Session 3. Meeting the range and complexity of students learning needs by using formative assessment	Understand how teachers using formative assessment meet the range and complexity of student learning needs.
14:30 – 15:00	Training Day Wrap Up	

Day 2		
Time	Session title	Session objectives
08:30 – 10:00 (90 minutes)	Session 1. What does formative assessment produce?	Recognize that formative assessment is not a test but a process that produces not a score but a qualitative insight into the learner's understanding' (Popham W J, 2008)
10:00 – 10:30	Break	
10:30 – 12:00 (90 minutes)	Session 2. Through formative assessment, how can the teacher involve the learner in co-constructing learning?	Explain how formative assessment empowers pupils to have more involvement in the learning process through co-construction of learning with the teacher.
12:00 – 13:00	Lunch Break	
13:00 – 14:30 (90 minutes)	Session 3. What should be the teacher's next steps in using the assessment information in his/her teaching and learning?	Supply evidence of understanding that it is this assessment and analysis of pupil thinking that will cause the teacher to adjust his/her original teaching plan for the lesson.
14:30 – 15:00	Training Day Wrap Up	

Day 3		
Time	Session title	Session objectives
08:30 – 10:00 (90 minutes)	Session 1. Set of ‘formative assessment toolkit’ strategies	Demonstrate awareness of the set of ‘formative assessment toolkit’ strategies
10:00 – 10:30	Break	
10:30 – 12:00 (90 minutes)	Session 2. Differentiation and co-construction in the classroom	Demonstrate an understanding and supply an example of the use of the methods of (i) ‘differentiation’ and (ii) ‘co-construction’ in the classroom
12:00 – 13:00	Lunch Break	
13:00 – 14:30 (90 minutes)	Session 3. Integration of the ‘formative toolkit’ methods and techniques within teaching pedagogy.	Demonstrate an understanding of the integration of the ‘formative toolkit’ methods and techniques within teaching pedagogy.
14:30 – 15:00	Training Day Wrap Up	

Unit 1.

Session 1. Changing environment and learning culture by using formative assessment

Duration: 90 minutes

Session learning objective:

- Understand how teachers using formative assessment have changed the environment and learning culture of their classrooms/seminars.

Activity 1. Ask participants to work individually. Read below statements and mark them if you are ‘strongly disagree’, ‘disagree’, ‘neither agree or disagree’, ‘agree’, or ‘strongly agree’.

Distribute the agree/disagree charts (or ask the participants to open appropriate page from their training module). Ask them to read and tick off an appropriate box. – 5 minutes.

Statement	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
1. Learners should be involved in setting their own learning problems [with the guidance of the teacher] and therefore become researchers to develop solutions to those learning problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. A teacher using formative assessment to support teaching and learning is a teacher in ‘ transmission ’ mode, not in a dominant transaction mode.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Formative assessment leads to less dominance of teacher ‘voice’, more opportunity for pupil ‘voice’ in the classroom teaching, learning and planning environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. There are far more questions, discussion points and problems raised by pupils in an active learning transmission mode.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Understanding and using more open-style questioning techniques enable students to reflect and develop as a critical thinker.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Understanding why and when to use different types of talk’ within layered categories of demand, frequency & usefulness will develop a climate/culture which moves through rich dialogue between teacher-pupil and pupil-pupil.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Real dialogue with pupils should be recognised as a means of deepening learning and obtaining assessment evidence of pupil understanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Activity 2. Pair work: After participants will finish reading and marking each statement. Ask them to work in pairs, share their results. Discuss what they have in common, explain what made them to select the same respond? What is different and how they explain and convince each other? – 10 minutes

Activity 3. Checking understanding. Ask participants to read the below text (tell them the page from Teacher's Module) and match with their responds in Activity 1. Guiding questions: What evidence you have found in the text that proves/doesn't not prove your selection? Do you still have the same position to the statements or you would change it because the information in the text helped you to understand core concept? – 15 minutes

Text:

Learner-centred teaching is based on a **differentiated pedagogy**. For example, learners [pupils, students] are involved in setting their own learning problems [with the guidance of the teacher] and therefore become researchers to develop solutions to those learning problems. In this way, the classroom environment involves all pupils as active learners supported by the teacher. The teacher becomes an **enabler** and **facilitator** of the individual [different] learning styles and needs of the pupils.

Review Module 1 work on '**transmission**' and '**transaction**' teaching styles. A teacher using formative assessment to support teaching and learning is a teacher in '**transaction**' mode, not in a dominant transmission mode.

Formative assessment also leads to more flexibility and fluidity in the traditional roles between teacher and learner. For example, there is less dominance of teacher 'voice', more opportunity for **pupil 'voice'** in the classroom teaching, learning and planning environment.

Teachers gradually become more competent and confident in using strategies (such as guided group working) to address – rather than ignore, as happens in the 'one size fits all' transmission model - the complexity of learning needs. A simple example, is that there are far more questions, discussion points and problems raised by pupils in an active learning transactional mode.

In the transmission model, pupils were treated as '**suppliers**' of answers, always in reactive, responding mode. Far too often these 'reactions' were demanded at 'pace', which did not enable the pupil to **reflect and develop as a critical thinker** about issues. Consider the importance of understanding and **using more open-style questioning techniques**. A teacher cannot change from transmission to transaction without 'knowledge about language' and its effects. For example, teacher can use more open probes prompts such as: 'What if... 'Show me how.. 'Tell me more about....'

It is important that participants understand that there are 'different types of talk' within layered categories of demand, frequency & usefulness. Understanding why and when to use them will develop a climate/culture which moves through rich dialogue between teacher-pupil and pupil-pupil to even more sophisticated forms of dialogic teaching.

Types of talk

- Rote: the ‘drilling’ of facts, ideas and routines through constant repetition.
- Recitation: the accumulation of knowledge and understanding through questions designed to test or to stimulate recall of what has previously been encountered or to cue pupils to work out the answer from clues provided in the question.
- Instruction/exposition: telling the pupil what to do and/or imparting information or explaining facts, principles or procedures.
- Discussion: the exchange of ideas with a view to sharing information and solving problems.
- Dialogue: achieving common understanding through structured cumulative questioning and discussion which guide and prompt, reduce choices, minimise risk and expedite the ‘hand-over’ of concepts and principles. [Alexander 2005, p.12, in Boyle & Charles 2013 p.193]

In the formative transaction mode, teachers understand the importance of real **dialogue** with pupils as a means of deepening learning and obtaining assessment evidence of pupil understanding. These teachers work hard to develop a communication culture, supporting pupil involvement through ‘**chains**’ of **dialogue sequences** which pupils will lead and the teacher will contribute as support or facilitator rather than as the dominant voice. This developing two-way trust between teacher and pupils leads to pupils becoming involved in developing own learning and learning targets in collaboration with the teacher. For this to be achieved the teacher has to model reciprocal dialogue in order to engage desirable language behaviours. Dialogue not only develops cognition but is also a true **affective domain-development process**: ‘when I am heard I am valued’.

Activity 4. Group discussion. Ask participants to share their personal thinking about the statements and concepts presented in the text. Guide and encourage participants to talk and communicate own ideas. Sample questions. What from above concepts/terms were new for you? How would you translate them into practical implementation during teaching and learning process? Encourage participants to ask questions as well. – 15 minutes



Activity 5. Getting Started: Building Blocks of Differentiated Instruction. (Forsten, Grant & Hollas, 2006) Present slides 1 to 6 (in a sequence). After each “block” encourage candidates to think and connect the presented blocks with their own understanding and share their ideas. – 30 minutes

Knowing the Learner:

Teachers need to know as much as possible about their students to teach them well, including learning styles and pace, multiple intelligences, personal qualities such as temperament and motivation, personal interests, potential disabilities, health, family circumstances and language preference. P.I.E.S – physical, intellectual, emotional & social.

Traits of a Quality Teacher:

The teacher believes that all students can learn, has the desire and capacity to differentiate curriculum and instruction, understands diversity and thinks about students developmentally, is a risk taker, is open to change and well-versed in best practices, is comfortable challenging the status quo, knows what doesn't work, is able to withstand staff dissension that may arise. Does the teacher believe in 'Growth mind-sets' or 'Fixed intelligence'? These have major implications for teaching learning & assessment.

Quality Curriculum.

Curriculum needs to be interesting to students and relevant to their lives, appropriately challenging and complex, thought provoking, focused on concepts and principles and not just facts; focused on quality, not quantity; stress depth of learning, not just coverage. Consider the importance of 'Culturally Responsive Curriculum' or the fact that relevant teaching has been described as 'a pedagogy that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills and attitudes' (Ladson-Billings, 1994, p.382). Culture determines how pupils perceive life and their relationship to the world. Because culture also influences how and what pupils learn, education can use culture to improve self-image and achievement (Kuykendall, 1989, p.32-33).

Classroom Learning Environment

The ideal learning environment includes a balanced student population, appropriate grade and program placement, priority seating based on student needs, a reasonable class size, practices positive discipline, arranges furniture to promote group work, uses flexible grouping, and has adequate teaching supplies. Pupils should feel safe and secure with freedom to move in and around appropriate spaces.

Flexible Teaching and Learning Time Resources

Includes team teaching, block scheduling, tutoring and remediation within school, before and after-school programs, homework clubs, multi-age/looping classrooms. Opportunities for pupils to create, plan and design own learning areas based on curriculum and pupil interests.

Instructional Delivery and Best Practices.

Includes flexible grouping, cooperative learning, learning areas, web quests, tiered assignments which offer choice in selection, (Relationships- adapt teaching to the way pupils learn, develop a connection with ALL pupils, incorporate relatable aspects of pupils' lives- Delivery- keep monologue style teaching to a minimum).



Activity 6. Planning through guided group strategy - 25 minutes

Divide the class into groups of five [for division use your primary observation and analyses of candidates. Make sure that those who you feel that are not getting focused or have less understanding of the discussed concept are in “a guided group”]. The main objective is to get the candidates to shape their understanding of the volume of change in their teaching behavior to change the teaching and learning culture through formative assessment. Ask groups to discuss each aspects (linking with the ideas from the text/presentation above) and write what would they adjust to become a formative teacher? After they finish, groups share their results with others.

Change aspects	What would you adjust in your teaching practice?
Knowing the Learner	
Traits of a Quality Teacher	
Quality Curriculum	
Classroom Learning Environment	
Flexible Teaching and Learning Time Resources	
Instructional Delivery and Best Practices.	

Session 2. Making learning more transactional and transparent by using formative assessment

Duration: 90 minutes

Session learning objective:

- Understand how teachers using formative assessment make learning more transactional and transparent.



Activity 1. Discussion/dialogue. Post each set of the below questions (or use Slide 7 from PP for Module 2) and encourage candidates to share own ideas. Encourage or conduct mini-discussion/dialogue for each question/statement. You can

intervene with your thoughts sometimes – just to keep discussion moving forward if necessary. - 20 minutes

- What concerns might pupils/students have when the teacher decided to change from traditional (transmission) teaching set-up to a differentiated strategy?
- What solutions could you suggest to make that change of strategy easier for the pupils to accept?
- What classroom guidelines would need to be established as differentiated teaching is introduced?
- How would you deal with the issue of ‘grading’ in a differentiated classroom?
- What concerns might parents have about the introduction of differentiated teaching (groups of pupils working at different levels)?
- How could you help the parents to understand potential positives of differentiation for their child?



Activity 2. Focus Group Discussion. – 30 minutes

Divide the candidates into groups of five or six (depending on the size of the class). Ask groups to define a FGD facilitator and a note taker. Tell the groups that the facilitator of each group will receive a FGD questions/statements, manage group discussion according to the given question (remind the FGD facilitators that they may develop their own questions related to the given topic) and note taker records responds.

Remind the FGD facilitators:

- Ask an opening question. This could be a very general question
- Make sure that all opinions on that question get a chance to be heard.
- Ask your next question -- and proceed with other questions in the same general manner. The phrasing of the questions, the follow-ups, the ordering of the questions, and how much time to spend on each one are points that the leader will have to decide -- sometimes on the spot.
- When all your questions have been asked, and before the group ends, ask if anyone has any other comments to make. This can be an effective way of gathering other opinions that have not yet been voiced.

Focus group Discussion Questions

Central to effective teaching and learning

What does 'effective' mean in an educational context?

What is 'effective' teaching? Describe an example of an effective lesson (session) of teaching that you have experienced or supplied.

What is 'effective' learning? How does the teacher know if learning is effective?

We talk about the 'complexity of learning'. What does that 'complexity' mean in teaching and learning situations?

How does the teacher know if the learning that has taken place is the right 'next step' in that pupil's learning trajectory?

Formative assessment happens all the time in the classroom

What does that statement mean?

So what is the difference between assessment and teaching and learning?

How does the teacher know that 'assessment' is taking place?

Should the pupil know that assessment is taking place?

Does this mean that the teacher is always setting test or quizzes for the pupils?

What does the teacher 'do' with all the information s/he gets from these assessments?



Activity 3. Summary and comparison. – 20 minutes

- 1) Ask FGD facilitators summarize the results, agree with the group.
- 2) Ask groups to read the survey results in England below and compare with their FGD results? What are common findings? What is different? Discuss with your peers.

Survey Results

We have heard many teachers state that 'formative assessment helps me plan the 'next steps' for the pupils': **Research evidence:**

From a recent survey of 350 schools in England, over two thirds of the teachers on being asked what importance they gave to formative assessment in their planning for teaching, responded that they gave it a very high priority (90% responded that they gave it a 'high' or 'very high' priority). However, on being asked to elaborate on 'why' they had assigned such a high level of priority, the schools supplied a range of responses. Some of these did not have a strong relationship between the assignment of a priority and the supplementary question 'why'.

The main classifications of response on this question emerged as follows: approximately 40% of the sample of teachers reported that they had given a very high importance to formative assessment because it 'informs next steps' or 'it informs the next teaching plan', both of these responses were considered and counted in the same category. The next categories most reported were: 12% of schools stated that formative assessment 'informs all our planning', 8% stated that they gave a very high priority to formative assessment because it 'helped them assess where children are'. Eleven percent [11%] of the sample reported that formative assessment enabled 'personalised learning' and this justified the high priority they gave to formative assessment.

Six percent [6%] of respondents stated that formative assessment supplied ‘an accurate way to set targets’. The only other significantly reported reason for the high priority given to formative assessment in planning was that ‘it supports the identification of pupil needs enabling the setting of differentiated targets for lessons’, [6%] of the sample – the low percentage supplying a clear indicator that the notion of differentiated planning for teaching is not yet seen as a pre-requisite for formative assessment by the majority of teachers.

There was then a wide range of low frequency responses across the schools: in summary these included: ‘child’s personal next steps’ ; ‘informs pace and value-added’; ‘targeted activities’; ‘effective comments for the child’; ‘generates flexible teaching groups’; ‘change planning to cater for pupils’ needs’; ‘match work to pupils’ needs’; ‘enjoyment’; ‘accurate picture of what children are learning’; ‘recommended by Ofsted’ and ‘a requirement says the Local Inspector’. Equally low frequency but possibly more valid representations of what formative assessment means were supplied as ‘teachers to be highly responsive to pupil’s needs’ and ‘to adapt and adjust daily’; ‘update plans on a daily basis for each child’ and ‘instant feedback to children’.

[From ‘Formative assessment for teaching and learning’, Boyle & Charles 2013, SAGE, p.15-17]

As can be seen from the above responses, despite the very high percentage reporting prioritisation of formative assessment, schools clearly have very different definitions of what formative assessment is and what is its purpose. The correlations between the level of importance a teacher gave to formative assessment and the reason for that prioritisation, showed no significant relationship.

Message: it is important that teachers understand what formative assessment IS and how it is integrated within effective teaching and learning. [See Module 1]

Marks, grades or comments

Teachers often find that close analysis & specific comments [**shared oral and shared written**] are more effective than ‘marks’ for improving student performance and for supporting all students to learn effectively. It is not always easy to teachers to reduce or decrease the frequency of mark-usage. Sometimes students and their parents prefer marks because they have traditionally been used to them – so sensitivity and clarity in the process of replacing marks by comments is necessary.



Activity 4. Discussion/dialogue (adjusting understanding). Post each set of the below questions (or use Slide 8 and 9 from PP for Module 2) and encourage candidates to share own ideas. Encourage or conduct mini-discussion/dialogue for each question/statement. You can intervene with your thoughts sometimes – just to keep discussion moving forward if necessary. - 20 minutes

Session 3. Meeting the range and complexity of students learning needs by using formative assessment

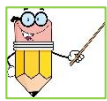
Duration: 90 minutes

Session learning objective:

- Understand how teachers using formative assessment meet the range and complexity of student learning needs.



Activity 1. Brainstorm. Ask teachers: Do you differentiate students during teaching? How do you do it? What purposes guide your differentiation? (Why do you differentiate students?) Listen and note teacher's responds. List the purposes for differentiation that teachers mention. – 10 minutes



Activity 2. Shaping the understanding. Discuss the following after the brainstorm. – 5 minutes

If formative assessment is carried out on a fairly regular basis, the result is pressure to differentiate' [Perrenoud 1991, p.89]

Any audience however carefully selected is heterogeneous. When given the same tuition, the pupils do not progress at the same pace or in the same way. If one is intent on formative assessment, sooner or later one must face the fact that that no overall adjustment can meet their needs. The only appropriate answer is differentiated teaching.

Consider the implications of 'setting'- children in a 'loser' [low level; deficit] classroom at an early age. Those children then become locked in and locked down throughout their school careers (Boaler 2014).

Consider the basic misunderstanding of how pupils learn:

Example: a teacher has been given the 'top set' in mathematics to teach but instead of analysing the pupils' learning across a profile of ability, the teacher treats the pupils all as a homogenous mass.

Learning will not be effective [at either individual or group level] because of the teacher's basic failure to understand the necessity of differentiating for learning to be effective and matched to learning needs.

Why differentiate?

'Because pupils do not have the same abilities nor the same needs nor the same way of working; an optimal situation for one pupil will not be optimal for another. One can write a simple equation: diversity in people + appropriate treatment for each = diversity in approach'

[Perrenoud 1998 p.86]



Activity 3. Visiting experts. Divide the class into 3 groups. Give each group related sections of the below texts. Ask them to read and discuss the ideas and evidences. Define an expert from among their members. Closed Group Practice: members of the group ask the “expert” to tell them about assigned text. Other members ask him/her questions and help him to construct appropriate respond. Ask the “experts” from each group rotate to another group after you clap twice. The “experts” rotate to other groups and discussed assigned concept. Give each “expert” 5 minutes to teach peers from other groups and answer their questions. Overall you need 15 minutes for preparation and 15 minutes for rotation.

GROUP 1. Assessment must help in diagnosing a pupil’s problems and difficulties (and strengths) in learning.

Consider the implications of the proliferation of ‘intervention’ groups in which pupils needs are seen to be outside of classroom ‘norms’ and labelled as ‘slow’ ‘lower’ ‘poor’ learners. The findings from Radford et al study 2011 reported these labels as in constant use to describe ‘learners’.

Research strongly suggests that the most vulnerable of learners, who are in need of a carefully differentiated, layered and sequenced set of teaching and learning strategies, are being misunderstood [mis-labelled] as pupils ‘with learning difficulties’ who require a separate pedagogical intervention by a special needs support-teacher.

ALL pupils require differentiated work programmes on which they collaborate with their peers – NOT, exclusion and segregation from classrooms as if they have a disease! (Boyle & Charles, p.189

It is essential that formative assessment has a clear definition [See Module 1] so that its practice can be understood, and therefore used with purpose and clarity for more effective learning support by teachers. The literature in the research field offers several interpretations and definitions.

For example, Coffey et al (2011) suggest that ‘formative assessment should be understood and presented as nothing other than genuine engagement with ideas, which includes being responsive to them and using them to inform next moves’ (p. 1129). While James Popham’s definition states clearly that ‘formative assessment is not a test but a process that produces not so much a score but a qualitative insight into student understanding’ (Popham 2008, p.6). The process and outcomes of formative assessment are the focus for Bennett [2011 p. 7] whose definition links the teaching, learning and assessment activity through, ‘formative assessment involves a combination of task and instrument and process’.

GROUP 2. Assessment must enable teacher to supply the next appropriate learning experience for a pupil.

‘Formative assessment takes place day by day and allows the teacher and the student to adapt their respective actions to the teaching/learning situation in question. It is thus, for them, a privileged occasion for conscious reflection on their experience’ (Audibert, 1980, p.62).

Audibert means that formative assessment is constant analysis of a connected moving picture [the pupil]: if the action [adjustment to teaching] taken on the basis of the assessment is effective ('effective' being defined within the iterative nature of learning in which pupils will re-visit concepts several times on their learning journey), the learner will have progressed and his/her misconceptions are being supported for more effective learning.

Formative assessment is a rich source of information about the pupil. The pupil's knowledge, understanding and skills will have been evaluated on many occasions and in many contexts. Assessment cannot be used formatively if it is only intermittent. Learners develop all the time, not just at the end of a unit of work or a term, year or key stage. Just as assessment is a continuous iterative process, so also must the recording of progress be a continuum, an ongoing activity. The formative assessment activity must be within from current classroom practice. Formative assessment is NOT externally produced tests, quizzes, work sheets for whole class consumption and completion. An assessment task should build on a learner's current experience. The task needs to be clearly, carefully and precisely constructed to enable the learner to demonstrate what he or she knows. Assessment needs to be understood as tightly integrated within teaching and learning. Therefore 'the more the assessment is integrated into situations, it becomes interactive and lasts; it has more chance of enduring the further it distances itself from normative or summative evaluation, the province of tests and exams and their consequences' (Perrenoud 1998, p 100).

Perrenoud goes even further by questioning teaching pedagogy, practices and style.:

'in the absolute an ideal teaching approach would be to do without all assessment. All the feedback necessary for learning would be incorporated in the teaching situation, without it being necessary for the teacher to observe and intervene in order to bring about learning progress. In other words it is absurd to proceed with formative assessment without first calling into question current teaching methods and without seeking, as a priority, to make the teaching situations more interactive and richer in spontaneous feedback' [Perrenoud 1991, p.94]

For example, if a teacher during a teaching session is assessing a learner's understanding of alphabetic principles (phonemes), we would not expect that teacher to present a worksheet on the 26 letters of the alphabet. Rather there would be multiple assessment routes for that concept: for example, how the child reads, how the child writes, what form of code the child uses to write, what multi-modal techniques support the child's reading access and impact upon development.

These are all normal teaching activities with which the learner is comfortable (based on the premise that cognitive progress links to our affective and conative domains), however they are also forms of assessment.

Group 3. How do teachers vary instruction methods to meet the range and complexity of student learning needs?

Discussion points.

Teachers should ensure that lessons include different approaches to explaining new concepts, provide options for independent classroom work and encourage students who have engaged with a new concept to help their peers.

Explore: Zones of proximal development [Vygotsky 1986]. For Vygotsky, pupils learn by solving problems with and alongside peers more capable than themselves. This social interaction is seen by Vygotsky as the essential factor to take pupils through their current learning zone to the proximal [or potential] zone of development.

Teachers need to develop formative approaches which enable them to explore pupils' thinking and problem-solving strategies by seeking explanations of why the group members did certain things in certain ways.

This requires an understanding by teachers of the necessary role of socio-cognitive apprenticeships, for example in writing development.

Englert [2006, p.211] discusses the establishment of communities of practice in which pupils 'pupils participate in 'inquiry-based conversations about texts, learning to treat printed words as thinking devices'.

When pupils interact on a frequent basis they have a greater opportunity to understand and internalise, 'thereby laying the foundation for the development of dialogical skills that support text production' [Rijlaarsdam 2008 p.60].

Explore: 'paired writing', 'collaborative writing' through 'author switch' methods [Using Multiliteracies and Multimodalities to support young children's learning, Charles & Boyle 2014 SAGE]

Teachers should use a range of approaches to assess student understanding of what has been taught. They may use concept based assessment to determine a student's profile of understanding and learning when s/he first enters a new school or phase or continuously during the school term to help shape teaching and learning strategies.

During classroom interaction teachers must encourage dialogue and develop a range of questioning techniques. Dialogue and questioning should be 'grown' so that students feel that it is 'the normal behaviour' for them to be involved in originating, generating and leading in those sessions.

Consider the implications of other adults working with groups of children. For example, do they understand how their oral style can potentially 'open up' or 'close down' pupils' dialogue and communications skills, even their thinking processes?

Questions regarding causality or open-ended questions often reveal a student's misconceptions. For example, it is important to examine power relations in dialogue sessions. It is imperative that mutual respect and the deregulation of roles has taken place not on a superficial level but that a genuine authentic classroom culture has been created.

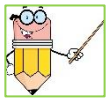
Otherwise pupils will simply supply what the teacher wants to hear [recitation script] or pupils will remain monosyllabic in verbal responses.

Alexander (2005, p.12) states that the cumulative aspect of dialogic teaching is possibly the toughest to achieve in the classroom. However to achieve dialogic discourse and practices-expedites the handover of concepts and principles.

Teachers should initiate 'feedback loops' with verbal or written feedback on a student's work. Consider carefully the amount and type of feedback written on a pupil's piece of work. Too much may cause 'overload' and the demand within a hierarchy of concept difficulty. For example, orthographic aspects measured against legible handwriting. What does the pupil focus on?

Teachers and researchers have found that the most effective feedback is a dialogue process which is timely, specific and tied to explicit criteria. There are multiple ways of sharing/disseminating process of feedback. For example, small groups, 1-to-1 and large group sessions as some may be common to the group. Be mindful of the sensitivity aspects linked to affective and conative domain learning – for example, learner identity: how positive is this?

Crucially, teachers must adjust their planning and teaching strategies to meet those learning needs identified through formative assessment.



Activity 4. Shaping the understanding. Discuss the following after the brainstorm. – 10 minutes. Talk about above concepts. Discuss and help teachers to shape their understanding and also assess to what extend teachers are in the right comprehension track. – 10 minutes



Activity 5. Guided Group Discussion/Case Study. – 20 minutes
Divide the teachers into groups of five. Ask them to read and discuss/evaluate each of the presented classroom scenarios (cases). Present the below questions as discussion points. Sit with a group observe, guide and shape their understanding.

- What are your comments on the three scenarios?**
- Which teacher(s) differentiate?**
- Do any of them match your definition of differentiation? If so, how?**
- In which classroom do you think learning is most effective?**

Step 1 Case study Looking inside three classrooms: (Tomlinson, C. 1999)

Classroom One

Mr Appleton is teaching about Ancient Rome. His students are reading the textbook in class today. He suggests that they take notes of important details as they read. When they finish, they answer the questions at the end of the chapter. Students who don't finish must do so at home. Tomorrow they will answer the questions together in class. Mr Appleton like to lecture and works hard to prepare his lectures. He expects students to take notes. Later, he will give a quiz

on both the notes and the text. He will give students a study sheet before the test, clearly spelling out what will be on the test.

Classroom Two

Mrs Baker is also teaching about Ancient Rome. She gives her students graphic organizers to use as they read the textbook chapter and goes over the organizers with the class so that anyone who missed details can fill them in. She brings in photographs of the art and the architecture of the period and tells how important the Romans were in shaping our architecture, language and laws. When she invites some students to dress in togas for a future class, someone suggests bringing in food so that they can have a Roman banquet- and they do. One day, students do a word search puzzle of vocabulary words about Rome. On another day, they watch a movie clip that shows gladiators and the Colosseum and talk about the favoured 'entertainment' of the period. Later, Mrs Baker reads aloud several myths, and students talk about the myths that they remember from 6th grade. When it's time to study for the test, the teacher lets the students go over the chapter together, which they like much better than working at home alone, she says. Mrs Baker also wants students to like studying about Rome, so she offers a choice of 10 projects. Among the options are creating a poster listing important Roman gods and goddesses, their roles, and their symbols; developing a travel brochure for ancient Rome that a Roman of the day might have used; writing a poem about life in Rome; dressing dolls like citizens of Rome or drawing the fashions of the time; building a model of an important ancient Roman building or a Roman villa; and making a map of the Holy Roman Empire. Students can also propose their own topic.

Classroom Three

Mrs Cassell has planned her year around a few key concepts that will help students to relate to, organize, and retain what they study in history. She has also developed principles or generalizations that govern or uncover how the concepts work. Further for each unit, she has established a defined set of facts and terms that are essential for students to know to be literate and informed about the topic. She has listed skills for which she and the students are responsible as the year progresses. Finally, she has developed essential questions to intrigue her students and to cause them to engage with her in a quest for understanding. Mrs Cassell's master list of facts, terms, concepts, principles, and skills, stems from her understanding of the discipline of history as well from the district's learning standards. As the year evolves, Mrs Cassell continually assesses the readiness, interests, and learning profiles of her students and involves them in goal setting and decision making about their own learning. As she comes to understand her students and their needs more fully, she modifies her instructional framework and her instruction. Ms Cassell is also teaching about ancient Rome. Among the key concepts in this unit, as in many other throughout the year, are culture, change and interdependence. Students will be responsible for important terms such as 'republic' 'patrician' 'plebeian' 'veto' 'villa', and Romance language; names of key individuals- 'Julius Caesar', 'Cicero' and 'Virgil' and names of important places- the 'Pantheon' and the 'Colosseum'.

For this unit, students explore key generalizations or principles: Varied cultures share common elements. Cultures are shaped by beliefs and values, customs, geography and resources. People are shaped by and shape their cultures. Societies and cultures change for both internal and external reasons. Elements of a society and its cultures are interdependent. Among important skills that students apply are using resources on history effectively, interpreting information from

resources, blending data from several resources, and organizing effective paragraphs. The essential question that Mrs Cassell often poses to her students is ‘How would life and culture be different if you lived in a different time and place?’

Early in this unit Mrs Cassell’s students begin work, both at home and in the classroom on two sequential tasks that will extend throughout the unit as part of ancient Rome. Both tasks are differentiated. For the first task, students assume the role of someone from ancient Rome, such as a soldier, a teacher, a healer, a farmer, a slave, or a farmer’s wife. Students base their choice solely on their interests. They work both alone and with others who select the same topic and use a wide variety of print, video, computer and human resources to understand what their in ancient Rome would have been like. Ultimately, students create a first-person data sheet that their classmates can use as a resource for their second task. The data sheet calls for the person in the role to provide accurate, interesting, and detailed information about what he or she would live, how he or she would be treated by law, what sorts of problems or challenges he or she would face, the current events of time, and so on. Teacher works with the whole class and small groups evaluating data sources, writing effective paragraphs and blending information from several sources into a coherent whole.

The second task calls on students to compare and contrast their lives with the lives of children of similar age in ancient Rome. Unlike the first task, which was based on student interest, this one is differentiated primarily on the basis of student readiness. The teacher again assigns each student a scenario establishing his or her family context for the task: For example, ‘You are the eldest son of a law maker living during the later years of the period known as Pax Romana.’ Mrs Cassell bases the complexity of the scenario on the student’s skill with researching and thinking about history. Most students work with families unlike those in their first task. Students who need continuity between the tasks however can continue in a role familiar from their first investigation.



Activity 6. Critique of Classroom One (Mr Appleton) Two (Mrs Baker) Three (Mrs Cassell). Post each of the below questions (or use Slide 10 from PP for Module 2) and encourage candidates to share own ideas. Encourage or conduct mini-discussion/dialogue for each question and provide evidences from the lesson scenarios. Allow plenty of time for candidates to reflect critically on each case. – 10 minutes

What are your comments on the three scenarios?

Which teacher(s) differentiate?

Do any of them match your definition of differentiation? If so, how?

In which classroom do you think learning is most effective?

For trainers: During discussion you can summarize using below evaluation of the scenarios.

Mr Appleton may have a sense of what he wants his students to know at the end of the road, but not about what his students should understand and be able to do. He teaches facts, but no key concepts, guiding principles or essential questions. With a fact based curriculum, differentiating instruction is difficult. Perhaps some students could learn more facts and some fewer, perhaps

some students could have more time to drill the facts, and some less. It's difficult to envision a defensible way to differentiate a fact-driven curriculum.

Mrs Baker also appears to lack a clear vision of the meaning of her subject, of the nature of her discipline and what it adds to human understanding, and why it should matter to a young learner to study old times. There is little clarity about facts-let alone concepts, guiding principles, or essential questions. Further, she confuses folly with engagement. She thinks that she is differentiating instruction, but without instructional clarity, her activities and projects are merely different-not differentiated. Because there is no instructional clarity, there is no basis for defensible differentiation.

Mrs Cassell plans for what students should know, understand, and be able to do at the end of a sequence of learning. She dignifies each learner by planning tasks that are interesting, relevant, and powerful. She invites each student to be enthused and to wonder. She determines where each student is in knowledge, skill, and understanding and where he or she needs to move in their learning trajectory. She differentiates instruction to facilitate that goal. For her, differentiation is one piece of the mosaic of professional expertise. It is not a strategy to be plugged in occasionally or often, but is a way of thinking, a philosophical positioning. Differentiation is not so much about the 'stuff' as the 'how', if the 'stuff' is poorly conceived, the 'how' is doomed.



Activity 7: Comparison of traditional and differentiated classrooms

Ask teacher[s] to think about the traditional classroom descriptions supplied below and (i) to add some more of their own and (ii) write their own comparative descriptions for a differentiated classroom (Activity sheet presented to the student with some of the 'traditional' side of the chart filled in. There are one or two examples on the 'Differentiated' side but the majority remain blank for student completion)

<u>Traditional classroom</u>	<u>Differentiated classroom (Tomlinson 1999)</u>
Student differences masked or acted upon when problematic	Student differences are studied as a basis for planning.
Assessment is most common at the end of learning to see 'who got it'	Student complexity at the heart of everything - 'learning is messy'
A relatively narrow sense of intelligence prevails (fixed intelligence)	Focus on multiple forms of intelligence is evident (Growth mindset- Dweck)

UNIT 2

Session 1. What does formative assessment produce?

Duration: 90 minutes

Session learning objective:

- Recognize that formative assessment is not a test but a process that produces not a score but a qualitative insight into the learner's understanding' (Popham W J, 2008)



Activity 1. Brainstorm. Present the below statement (Slide 10, PPP Module 2). Ask teachers to share their ideas: *What does this statement mean to you as a teacher who is going to use formative assessment in your classroom?* – 15 minutes

Statement: 'If the teacher does not form an appropriate picture of what is going on 'in the pupil's head', there is little likelihood of the teacher's action having a decisive effect in adjusting the learning process.' (Perrenoud 1991,p 88)



Activity 2. Present below statement and talk to the teachers. You or teachers may stop and ask questions for clarifications or checking understanding. – 20 minutes

Assessment must contribute to your knowledge of what a pupil can do

It is attention to pupil thinking that will cause the teacher to adjust his/her original plan for a lesson. Formative assessment will create 'learning objectives' for pupils that a teacher will not have had in his/her conceptual planning at the outset – and at two levels. One at the level of conceptualisation – how the pupil understands the concept – while the other objective is at the level of how the pupil approaches the theme/concept. The teacher should be constantly working to move pupils into engaging with the theme/concept as researchers and away from the 'ritualised classroom game' (Lemke 1990) of telling the teacher what they think s/he wants to hear.

In conceptualising assessment as 'learner behavioural analysis', the teacher is formatively assessing pupil thinking by paying close attention to their demonstrations through behaviours and outcomes of that thinking. S/he wants to understand what the pupils are thinking and why – as surely would any participant in any meaningful discussion.

Formative assessment should be understood and presented as genuine engagement with ideas, which includes being responsive to them and using them to inform next learning steps (Coffey et al 2011, p. 1129). For example, the teacher is exploring ideas about rainfall with a group of primary pupils. She originally had set up the dialogue linked to weather in a discussion of words and phrases such as 'wet', 'cloudy' and 'splashing in the puddles'. One child extended the discussion into the related area of her own bath time and used vocabulary related to that experience such as 'the water washes over me'. In this context the formative teacher re-shaped her original idea and

teaching concept to the perspective and location of the learners; for example, the child whose thinking had moved onto 'water' produced a 'water' poem.



Activity 3. Guided Group Discussion/ Reflections/Questions. – 30 minutes

Divide the teachers into groups of five. Ask them to read and derive the respond with evidences from the text. Sit with a group observe, guide and shape their understanding.

What are the practical implications of these statements for application by the teacher in the classroom situation?

Formative assessment will reveal 'learning objectives' that a teacher will not have had in his/her conceptual planning at the outset – and at two levels. The first level is one of conceptualisation – how the pupil understands the concept – while the other is at the level of how the pupil approaches the theme [concept]. The teacher should always be working to support pupils into engaging with the concept as researchers.]

In conceptualising assessment as 'learner behavioural analysis', the teacher is formatively assessing pupil thinking by paying close attention to the demonstrations through behaviours and outcomes of that thinking. The teacher needs to understand what the pupils are thinking – and why – just like any participant in a meaningful discussion.

'Any audience however carefully selected is heterogeneous. When given the same tuition, the pupils do not progress at the same pace or in the same way. If one is intent on formative assessment, sooner or later one must face the fact that that no overall adjustment can meet their needs. The only appropriate answer is differentiated teaching.' [Perrenoud 1991, p.89]



Activity 4. Written assignment. – 25 minutes

Why do you think as a new teacher you might feel that your definition of differentiation was not the same as your colleagues OR that you have 'no opportunities to differentiate'? How would you argue the case for the need to differentiate? Ask candidates to write AND EXEMPLIFY their own understanding of the given case/questions. Candidates select the format of the written work (they may develop a presentation, diagram, concept maps, bring in some visual/filmed material etc.). Ask them to show references and demonstrate how this can be inserted in the text.

Session 2. Through formative assessment, how can the teacher involve the learner in co-constructing learning?

Duration: 90 minutes

Session learning objective:

- Explain how formative assessment empowers pupils to have more involvement in the learning process through co-construction of learning with the teacher.



Activity 1. Brainstorm. Ask teachers: Have you ever heard term “co-construction”? What is con-struction? Listen to teachers’ responds and note them – 15 minutes



Activity 2. Present below statement and talk to the teachers (Slides 12 and 13). You or teachers may stop and ask questions for clarifications or checking understanding. – 20 minutes

What is co-construction?

A simple, practical but research-based definition would be that it is the active involvement of pupils in sharing the development of learning alongside the teacher; (adult or peer) the individualisation of the learning trajectory [Boyle & Charles 2013 p.152].

To collaborate in the development of learning, the teacher firstly has to understand where the learner is in his/her learning trajectory on the concept being taught. Then the teacher has to understand that assessment is NOT a summative measure or metric but IS a continuous supportive learning process. Once the teacher has reached that understand then co-constructive progress towards effective pupil learning is likely to happen.

That progress will be reinforced and heightened if the teacher works with [collaborates with] the pupil in adjusting his/her teaching to match the learning need identified by the formative assessment process. The timing of this adjustment is the crucial aspect of intervening when the pupil needs that specific support to understand the concept or to progress his/her thinking to a deeper level.

Formative assessment implies empowering the pupil to have more control over his/her learning, to understand the adjustments to his learning behaviours and thinking that are required, and is a continuous process not a summative measure.

Perrenoud sets the model for the optimum state of pedagogy to be achieved by a well-trained teacher who understands that formative assessment supports the learner within a de-regulated classroom. Perrenoud insists that ‘in the absolute an ideal teaching approach would do without all formative assessment. All the feedback necessary for learning would be incorporated in the situation, without it being necessary for a teacher to observe and intervene in order to bring about learning progress. In other words it would be absurd to proceed with formative assessment without first calling into question the teaching methods and without seeking, as a priority, to

make the teaching situations more interactive and richer in spontaneous feedback.’ (Perrenoud, 1991).



Activity 3. Practical application of co-construction. Ask teachers to work in groups of four or five. Ask the groups to select one lesson plan (subject and grade) (they may use the sample lesson plan from Teacher’s Guide – 2016). Review the lesson plan and define what to add/change to introduce activities/methods that support co-construction. [they can re-write the lesson plan or create a new one] – 30 minute



Activity 4. Visiting experts. One member from each group (Activity 3) rotate to another group to present and discuss the adjustments made by the group to the lesson plan. Trainer also will rotate from one group to another to observe, evaluate and direct presenters. Adjust teacher’s understanding of the co-construction and applying it at classroom level. Trainer should have an opportunity to sit in each groups and listen and help the presenter once. – 25 minutes.



Wrap up the session by pointing out (providing clear evidences) why is co-construction is important in student’s developing their knowledge and skills? How formative assessment can support co-construction?

Session 3. What should be the teacher’s next steps in using the assessment information in his/her teaching and learning?

Duration: 90 minutes

Session learning objective:

- Supply evidence of understanding that it is this assessment and analysis of pupil thinking that will cause the teacher to adjust his/her original teaching plan for the lesson.



Activity 1. Brainstorm. Ask teachers: **What should teachers be doing to use assessment effectively in the classroom?** – 10 minutes



Activity 2. Focus group discussion. Divide the teachers into groups of five. (Following the FGD rules/instruction) and them to conduct FGD based on the below case: - 20 minutes

“Classroom assessment involves teachers and pupils working together.” How can teachers and pupils work together over assessment? ‘I thought assessment was a test of what the pupils could do’ (Anonymous teacher).



Activity 3. Check and compare your understanding. Ask groups to read the below text and compare with their responds in Activity 2 above. Also ask them to tell peers what ne information they got from the text. – 20 minutes.

Classroom assessment involves teachers and pupils working together

According to socio-constructivist learning theory, individuals assimilate knowledge and concepts after restructuring and reorganising it through negotiation with their surroundings, including fellow learners (Hager & Hodkinson 2009, Rogoff 1990). All pupils do not learn all that is taught and teachers cannot know what and how well concepts are understood without using some process to establish pupil understanding. Since each pupil has his/her own unique socially constructed context, ideas, concepts and meanings are not fixed nor standardised across a group or class of pupils. Therefore the individual outcomes of learning situations will be diverse. The word ‘assessment’ derives from the Latin word ‘assidere’ meaning ‘to sit beside’ – this can be taken to imply a close proximity or association between the assessor and the learner in the assessment process.(Good 2011).

Criticism of an assessment process which had traditionally been designed to grade and certificate led to the emergence of formative assessment, a conception designed to support pupils’ learning processes. ‘Beginning in the 1960s researchers and authors from a range of disciplinary backgrounds weighed in against the proliferation of classification practices stemming from the American psychometric current, thus opening the way to prioritising assessments that measured students’ learning’ (Morrisette 2011 p. 249). These researchers included, in sociology (Becker 1963, Bourdieu & Passeron 1970; Perrenoud 1998, 2004;), anthropology (Rist 1977); palaeontology (Gould 1981); philosophy (Foucault 1975) and in evaluation (Crooks 1988, Mehan 1971, Popham 2008), have drawn attention to issues such as the consequences of testing practices on narrowing classroom pedagogy and culture.

‘For example the secondary adaptations (plagiarism, cramming) that pupils develop in a context which continually threatens their integrity and self-esteem; the cultural biases of the tests used to assess their learning; the ‘instrumental illusion’ that is, the ingrained belief that it is possible to exclude all the interpretive processes which are necessarily involved in these practices; and finally the power ascribed to evaluation practices that, on the one hand, contribute to a form of control and standardisation and on the other, perpetuate social disparities’ (Morrisette 2011 p. 249). From those beginnings, there has been an increasing interest in formative principles and functions of assessment serving to support pupils’ learning rather than to grade pupil outcomes.

In exercising the craft of good teaching, learning and assessment, an educator must reach into the learner’s hidden levels of knowing and awareness in order to help the learner reach new levels of thinking (Lindley, 1993).

Questions can prompt responses ranging from simple recall of information to abstract processes of applying, synthesizing, and evaluating information (Zepeda, 2009).

Research by Khan & Inamullah (2011, p.1) observed the use of lower-order and higher-order questions at secondary level, their study found (although small in scale-20 teachers over 28 days) that most of the questions asked were low-level cognitive questions. Among 267 questions 67%

were knowledge based, 23% were comprehension based, 7% were application based, 2% were analysis based and 1% was synthesis based, and the ration of evaluation questions was nil.

Higher-order thinking occurs with higher level questions. Teachers play an important role in engaging students in higher order thinking by asking higher order questions. A teacher can raise the level of critical thinking and help children in reflective thought by the proper use of questions (Hollingsworth, 1982).

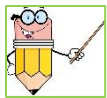
Framing questions that are challenging, open-ended and uncluttered with extraneous information supports higher order thinking (Wang & Orig 2003).



Activity 4. Ask groups to work together and create at list five questions for the above text (Classroom assessment involves teachers and pupils working together) using How, Why, What if ...? How can ... be applied? What is difference between ... and ...? Ask them to write each question in a separate slip of paper. –15 minutes



Activity 5. Quiz. Collect all questions from the groups (Activity 4). Mix them in the box. Ask each group to take a question, discuss in groups for 30 seconds and respond. Encourage other groups to add or provide more comprehensive answer. – 15 minutes



Activity 6. Presentation of Bloom’s Taxonomy of Cognitive Development. Use slides 14 and 15 (PPP Module 2) to present Bloom’s Taxonomy. Refer to other training modules and guides on Bloom’s Taxonomy. – 10 minutes

Asking questions to improve learning: Bloom’s Taxonomy Context

Benjamin Bloom’s Taxonomy of Educational Objectives (1956) provides a useful way to think about when and how to use questions in teaching. Bloom identified six types of cognitive processes and ordered these according to the level of complexity involved. Ideally, questions that require ‘lower-order thinking (often closed questions) to assess students’ knowledge and comprehension with questions that require ‘higher-order thinking’(often open questions) to assess students’ abilities to **apply, analyze, synthesize and evaluate.**

Asking Questions based on Bloom’s Taxonomy

Category	Definition	Question words	Example
Evaluation	Judgement making value decisions about issues	Judge, appraise, evaluate, assess	How successful will President Obama’s health plan be addressing the concerns of low-income families?

Synthesis	Combining ideas, creating an original product	Compose, construct, design, predict	Design an experiment that will allow you to separate the components in this solution.
Analysis	Subdividing into component parts, determining motives.	Compare, contrast, examine, analyse	Analyze the Supreme Court actions of the late nineteenth century in terms of Social Darwinism
Application	Problem solving, applying information	Interpret, apply, use, demonstrate	Apply the law of supply and demand to explain the current increase in fruit prices
Comprehension	Interpreting, paraphrasing	Restate, discuss, describe, explain	Describe the major differences between modern and postmodern art
Knowledge	Memorising, recalling information	Who, what, when? Define, recall, list	What are the main theories used in discussing different learning styles?



Activity 6. Evaluation of questions. Read out some questions that teachers developed in Activity 4. Ask teachers to define what level of Taxonomy they reflect. – 10 minutes



Activity 7. Written assignment. Ask teachers to select a subject topic (any of three subjects (math, language and nature) ask them to use subject standards (competencies) and develop 3 higher order thinking questions based on the last three levels of Bloom's Taxonomy.

UNIT 3

Session 1. Set of ‘formative assessment toolkit’ strategies

Duration: 90 minutes

Session learning objective:

- Demonstrate awareness of the set of ‘formative assessment toolkit’ strategies



The eight techniques or strategies of the ‘toolkit’ (These are presented separately for information but they are used in an integrated manner in training and in the classroom)



Activity 1. Present each of the eight formative assessment strategies of the toolkit use slides 16 to 23 – presentation and + discussion after each presented strategy. 30 minutes +

Slide contents:

Differentiation

- To the extent that pupils do not have the same abilities, nor the same needs nor the same way of working, an optimal situation for one pupil will NOT be optimal for another pupil: one can write a simple equation: **Diversity in pupil + appropriate treatment for each = diversity in teaching approach.** (Perrenoud 1998)

Observation

- Observation of process has to be planned for. It must be **analytical, purposeful** and **structured** to identify and feed into individual learning trajectories.
- Where is the pupil in his/her learning?
- What does the pupil need to do?
- Where is the pupil going in his/her learning?

Guided group strategy

Guided group teaching offers many things:

- A strategic organisational device;
- An optimal opportunity for specific and focused teaching;
- A small group situation enabling learning to be planned tightly offering ready access for learner to teacher
- A rich opportunity for teacher to focus assessment observations within small group
- Pupils become part of the process of collaborative knowledge-building.

Analysis and feedback

- Through analysis of each pupil's learning behaviours and outputs, the teacher achieves a deeper understanding of each pupil's learning strengths and needs
- Specific, individualised feedback is then shared with each individual, supplying the specific information required to support next steps in learning development.

Co-construction

- Co-construction involves the pupil in active participation with the teacher and peers in sharing the construction of knowledge.
- The pupil becomes active rather than passive on the learning journey.
- The pupil learns to shape and deepen their understandings and opinions in negotiation with their peers.

Self-regulated learning

- Means the development of learner autonomy.
- Requires the deregulation of the traditional **transmission** and **passive reception** model.
- The teacher models **transactional** classroom behaviours. [Review transaction]
- This continual modelling enables the learners to become accustomed to the practice of the self-generation of thoughts and actions.
- Effective teaching, learning and assessment requires that there is learner autonomy.

Dialogue and dialogic

- Dialogue is at the core of human transaction.
- Dialogue between teacher and pupil is at the core of learning.
- From 'real' dialogue, the teacher gains valid assessment information for use in specific planning for learning.
- Dialogic is a structured extended process of shared dialogue in which groups of learners are involved and enabled to lead the learning process.

Reflective planning

- Formative teaching, learning and assessment requires conscious reflection on the day's teaching. This influences the teacher's planning of differentiated activities for the next teaching session.
- This reflection enables the teacher to edit daily planning for learning consolidation, progression or re-strategising depending on how pupils have responded to teaching and learning in each session.



Activity 2. Guided group work.

Tasks: Ask teachers to work in groups of five. Use the Teacher's Module (where there is more information about these 8 strategies) to have discussion around the below questions. Develop a brief presentation and present to whole class. Select a group to observe, guide and help to manage the given task. – 30 minutes

Key questions which are always used as a framework for using this formative toolkit:

- How do we teach pupils to ask the right questions?
- How do we discover pupils' understanding in any area of learning [subject]?
- How do we know that pupils are developing new understandings?
- What assessment strategies can we use that allow us to become partners with our children in the quest for deep understandings?



Activity 3. Presentation of Guided group work outcomes (Activity 2 above).

Ask each group to present their vision on the given questions. Organize discussion among the class.

Session 2. Differentiation and co-construction in the classroom

Duration: 90 minutes

Session learning objective:

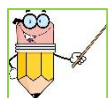
- Demonstrate an understanding and supply an example of the use of the methods of (i) 'differentiation' and (ii) 'co-construction' in the classroom



Activity 1. Brainstorm. Organize brain storm activity based n the given statement and question. – 10 minutes

'If the teacher does not form an appropriate picture of what is going on 'in the pupil's head', there is little likelihood of his/her action having a decisive effect in adjusting the learning process.' (Perrenoud 1991,p 88)

How would you respond to the following statement from Perrenoud's research?



Activity 2. Present slides on differentiation (Slides 24 to 28. PPP Module 2). After each logical pauses stop and organize discussion of the presented ideas, texts or questions. - 30 minutes

Presentation contents:

Differentiation

‘No formative assessment without Differentiation’ (Perrenoud p. 88-90, 1991)

- To the extent that pupils do not have the same abilities, nor the same needs nor the same way of working, an optimal situation for one pupil will NOT be optimal for another pupil: one can write a simple equation: **Diversity in pupil + appropriate treatment for each = diversity in teaching approach.** (Perrenoud 1998)

As a teacher, how would you plan to address the differences in pupil learning pace?

‘Any audience however carefully selected is heterogeneous. When given the same tuition, the pupils do not progress at the same pace or in the same way. If one is intent on formative assessment, sooner or later one must face the fact that that no overall adjustment can meet their needs. The only appropriate answer is differentiated teaching.’

What is **Differentiation**?

In your own education journey so far what types of teaching strategies have you come across?

Have you experienced strategies that were designed for your own individual learning needs?

How successful were these in supporting your learning?

What did you feel were the advantages/disadvantages of teaching strategies such as: ‘setting’, ‘streaming’, ‘ability grouping’, ‘tracking’ and ‘differentiating’.

The term ‘differentiation’ is widely used in reference to teaching and learning but what does it actually mean and why should we be considering it?

Globally classroom instruction uses a ‘aim for the middle’ approach in which the teacher aims the lesson at a level which s/he thinks is accessible to the majority of pupils. The teacher provides a single text, lecture or activity, sets single homework assignment, works at a single pace and gives a single assessment with the *hope* that most learners will grasp the essentials before the lesson ends and s/he moves on to the next lesson. (Association for Supervision and Curriculum Development [ASCD], 1997).

For a teacher ‘hope’ is not good enough!

Differentiation supplies a strategy which enables the teacher to match her/his teaching to the individual/group needs within the learners in the classroom.

‘Differentiated instruction is both a way of thinking about teaching and learning and a model for guided instructional planning which responds to students’ needs. Students’ varied needs are the reason for differentiation’. (ASCD, 2011)

‘Differentiated instruction is guided by a teacher’s core beliefs about the nature of intelligence, the factors influencing motivation for learning, and the roles of teacher and students in the learning process.’ (ASCD, 2011)



Activity 3. Presentation and discussion of co-construction strategy.

Present Slide 29 (Module 2). Organize discussion and dialogue during or after the presentation. – 15 minutes.

Co-construction

- Co-construction involves the pupil in active participation with the teacher and peers in sharing the construction of knowledge.
- The pupil becomes active rather than passive on the learning journey.
- The pupil learns to shape and deepen their understandings and opinions in negotiation with their peers.



Activity 4. Written assignment. Ask teachers to describe their understanding and use of (i) differentiated teaching and (ii) learner-involvement through co-construction in teaching and learning process. 35 minutes

Session 3. Integration of the ‘formative toolkit’ methods and techniques within teaching pedagogy.

Duration: 90 minutes

Session learning objective:

- Demonstrate an understanding of the integration of the ‘formative toolkit’ methods and techniques within teaching pedagogy.

Notes for the Trainer:

The eight interconnected concepts of formative assessment form an integrated teaching, learning and assessment strategy. These are illustrated in section **3.1 above**. However, it is important that the teacher understands that these are not techniques to be learnt and practiced as individual methods.

These are integrated strategies and methods through which teachers access, process, analyse, focus, plan and use evidence about pupil learning to intervene appropriately to support continued and effective progress in that learning.

Formative assessment is an intrinsic and essential part of the teaching and learning process and provides the specific learning-progress information [elicitation of evidence] that enables each teacher to support learning progress matched to the individual, specific and complex needs of pupils.

Pupils’ learning needs have to be central to the planning for teaching and learning. This focus on identifying where pupils are in their learning trajectories and understanding how to support those identified learning needs with matched instructional strategies will lead to improved, more effective, deeper learning [Allal & Lopez 2005; Boyle & Charles 2013].

Formative assessment requires the empowering of pupils to have more involvement in the learning process through the co-construction [**formative toolkit method**] of learning with the teacher.

The teacher has to understand and practice that assessment is a continuous process not a summative measure or judgement.

The evidence that the teacher elicits from the formative assessment process has to be planned [see: **reflective planning: formative toolkit method**] into support for the pupil with the pupil’s involvement [**self regulation formative toolkit method**] as an active participant in that learning process.

Professional [pedagogical] development issues for the teacher should include full understanding of the integrated use of the eight formative toolkit methodologies for the more effective learning support of the learner.

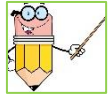
Reflecting on your experiences, discussions, activities in working through these three sets of tasks in this Unit, evidence [through your preferred choice of medium] your understanding of a model of using integrated elements of the formative toolkit in a classroom session which you have or would lead with your pupils.



Activity 1. Project Work. Teacher will work in small groups and complete their project work on “Integration of the ‘formative toolkit’ methods and techniques within teaching pedagogy”. 50 minutes

Instructions:

- 1) Teacher’s select subject and grade (math, language or nature)
- 2) Select a sample lesson/topic from the Syllabus or Teacher’s Guide
- 3) In groups they discuss, debate and try to integrate of formative toolkit methods within a lesson plan or series of lessons.
- 4) Design a lesson plan with demonstration how toolkit methods are integrated.



Activity 2. Presentation and evaluation of the lesson plans in terms of the integration of the toolkit methods. – 40 minutes



Activity 3. Summary and wrap up session.