PROJECT TITLE:
PROMOTING FORMATIVE ASSESSMENT: FROM THEORY TO POLICY AND PRACTICE (FORMAS)

GROUP B - SESSION 3
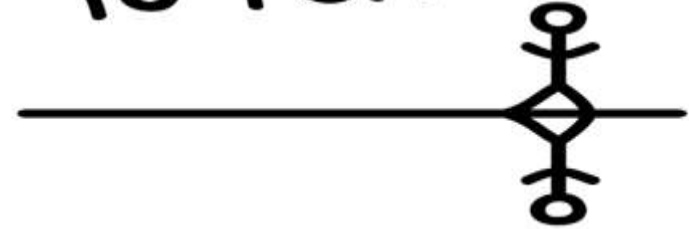
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Reflection time

Reflect on your experiences with the actions you have undertaken since our previous meeting, **to use different types of assessment techniques in an efficient and systematic way**.

Take into account any of the following:

❖ Which assessment techniques did you use?

❖ Have you tried any technique you haven't used before?

❖ Have you tried to combine two different types of techniques to assess the same learning objective? Was that helpful?

❖ What difficulties did you encountered? How did you handle them?

In the previous session:

✓ Using different types of assessment techniques in an efficient and systematic way (i.e. written/ oral/ performance) and keeping records

In this session:

✓ Formulating assessment success criteria and designing assessment checklists/rubrics
✓ Involving students in the process of assessment

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Intended Learning Outcomes

By the end of this session you are expected to be able to:

1) Formulate assessment success criteria

2) Create activities that teach students how to apply assessment criteria

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Application activity – Applying criteria for assessment (B3a)

Application activity – Applying criteria for assessment (B3a)

1. Study the assessment task and the assessment criteria below

Assessment task

Peter and Sam are wage labours. Peter earns €2/h more than Sam. When Sam works for 5h and Peter 7h, Sam earns €26 less than Peter. Find the hourly wage for each one of them.

Assessment criteria

1. Correct use of an unknown variable

2. Breakdown of the problem to meaningful algebraic expressions

3. Model formulation by means of an equation representing the problem using the elicited algebraic expressions.

4. Correct solution of the algebraic equation

Application activity – Applying criteria for assessment (B3a)

2. Then, apply these criteria to evaluate the sample student's response to the task, provided below

Sample Response
Let x be the hourly wage of Sam.
Then, the hourly wage of Peter is x+2
Then, $5x + 26 = 7(x + 2) \Rightarrow 5x + 26 = 7x + 14 \Rightarrow 5x - 7x = 14 - 26 \Rightarrow -2x = -12 \Rightarrow x = \frac{1}{6}$

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Application activity – Applying criteria for assessment (B3a)

3. Now, consider the following:

> *Did the criteria given help you evaluate the students' response?*
> *Did you use any other criteria not mentioned?*
> *Could a student apply these criteria to evaluate his/her own work?*

Possible responses to the questions are provided in the **Application activity – Applying criteria for assessment (B3a)- Suggested Answers** *file in the Teacher Handbook.*

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Formulating success criteria

- Success criteria are indicators that both the teacher and students will use to know if students have actually met an objective

- They should be clear descriptions of the learning performance that students will evidence when they have met the objective

- Student must be aware of what quality work looks like and they need to have specific criteria that will help them to assess their work.

- They might refer to the product or/and the processes to be used

- They provide a critical tool for students to understand where they are in their learning and to clarify for themselves which steps to take to improve.

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ILOs and Success Criteria

Intended Learning Outcomes (ILOs)

Statements, created by the teacher, that describe clearly <u>what the students are expected to know, understand, and be able to do</u> as a result of learning and teaching activities.

Success Criteria

Success criteria are linked to learning intentions. They are developed by the teacher and/or the student and describe <u>what success in an ILO looks like</u>. They help the teacher and student make judgements about the quality of student learning

Example: Defining intended learning outcomes and success criteria

Properties of a parallelogram

INTENDED LEARNING OUTCOMES
"Today we will learn how to apply the properties of parallelograms to solve problems"

SUCCESS CRITERIA

a) I can recall the properties of parallelograms:
- The opposite angles of a parallelogram are equal
- The opposite sides a parallelogram are equal
- The diagonals of parallelograms bisect each other.

b) I can apply the properties to find missing information in simple situations (one-step problems)

c) I can combine the properties of parallelograms with previous geometry or algebraic knowledge like:
- Angles in a triangle, exterior angle of a triangle and angles in a quadrilateral
- Angles in transversal lines
- Angle and line bisector properties
- Pythagoras theorem

Formulating success criteria

- *The quality of success criteria is judged by whether students can actually apply them to assess an independent piece of work, their classmates work (peer-assessment) or their own work (self-assessment).*

- Students are expected to gradually take ownership of criteria and their learning

- *They do NOT provide the right answer!!*

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Formulating success criteria (example 1)

SUCCESS CRITERIA (PROCESS)	SUCCESS CRITERIA (PRODUCT)
Learning Objective: solve a quadratic equation with real roots using the quadratic formula	Learning Objective: solve a quadratic equation with real roots using the quadratic formula
✓ Put equation in the standard form: $ax^2 + bx + c = 0$ ✓ Identify the values of a, b and c ✓ Substitute values into the quadratic formula ✓ Express roots appropriately ✓ Consider a method to check your solutions	✓ I can tell whether a quadratic equation has or has no real root. ✓ I can find the real roots of a quadratic equation using the formula. ✓ I can model word or geometry problems using the quadratic equation and interpret the solutions.

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Formulating success criteria (example 2)

SUCCESS CRITERIA (PROCESS)	SUCCESS CRITERIA (PRODUCT)
Learning Objective: Know how to find the LCM of two or more numbers and use it to solve word problems	Learning Objective: Know how to find the LCM of two or more numbers and use it to solve word problems
✓ Find the prime factors of the numbers involved. ✓ Express the numbers involved as a product of their prime factors in index form. ✓ Find the product of all prime factors, of the previous analysis, in their higher index. ✓ Identify a LCM word problem by looking, for example, at an event that is happening over and over again or by something that it happens at the same time.	✓ I can analyse a whole number as a product of its prime factors. ✓ I can formulate the LCM of two or more numbers using their prime product analysis. ✓ I can identify whether a word problem asks for LCM or not. ✓ I can use LCM in relation to other contexts and knowledge (e.g. geometry, addition and subtraction of dissimilar fractions)

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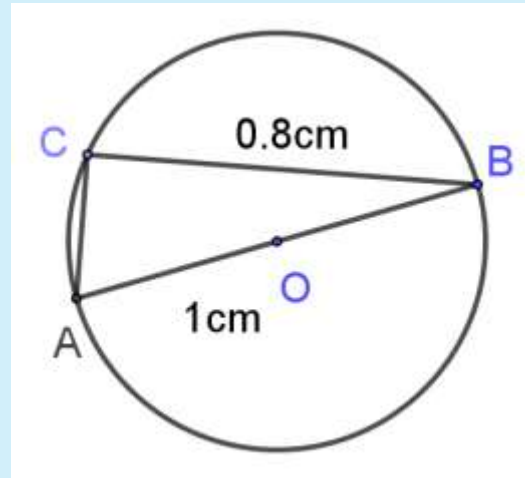# Application activity – Formulating success criteria(B3b)

Application activity – Formulating success criteria(B3b)

1.Study the assessment task below

Assessment task
Point C lies on a circle of diameter AB=1cm as in the figure below. Find the length of the chord AC.

2. Then, try to formulate assessment success criteria for this task

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Application activity – Formulating success criteria(B3b)

3. Are there ways to improve your criteria?

When doing so, consider the following:
➢ *Are they measurable?*
➢ *Are they applicable?*
➢ *Do they provide valuable insight about students' learning in relation to the learning objective?*
➢ *Is something missing?*
➢ *Is something not relevant to the objective?*

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Involving students in the process of assessment : *Creating a positive learning culture*

- Both formative assessment and self-assessment practices require a change of the classroom culture

- Putting the emphasis on helping students:
  - feel safe to take risks and make mistakes
  - develop self-confidence in the classroom.

- To create a positive learning culture teachers need to change:
  - the way they interact with students
  - how they set up learning situations
  - How they guide students toward learning goals
  - how they define student success.

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Consider the following:

1. Have you ever tried to involve student in the assessment of their work?

2. If yes, how? If not, why?

3. Do you believe students are able to make accurate judgements? What helps or hinders this process?
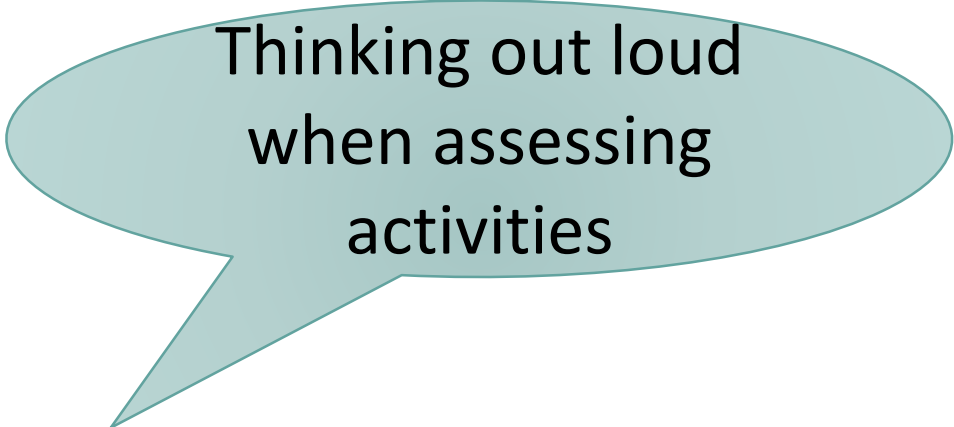
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Involving students in the process of assessment

- Self- assessment is a skill that needs to be developed

- We can't expect students to apply a skill as challenging as self-assessment without previously making sure they have developed the necessary skills involved.

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Involving students in the process of assessment -*Modelling the procedure*

A. Presenting students the process that I follow to assess a task helps them get acquainted with the process of assessment and the application of criteria

Thinking out loud when assessing activities

▸ The process of assessment should not be a process that takes place secretly and with not questioning

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Involving students in the process of assessment -*Modelling the procedure*

B. Presenting completed activities of differentiated quality (comparison of quality attributes, applying success criteria to judge quality)

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Involving students in the process of assessment - *Modelling the procedure*

C. Displaying activities at different stages (it helps students to identify how an activity is evolving)

Involving students in the process of assessment- *Applying the process of assessment to an independent piece of work*

- Students usually feel more comfortable to evaluate an independent piece of work.

- Use activities' samples from previous years or I create your own based on the criteria you want them to apply.

- Start with the application of the easier criteria and move to the most difficult ones

- Do it wrong– they will want to correct you!

- Present something incomplete (e.g. an incomplete solution to an equation)

- Present something incorrect (e.g. a mistake in a calculation)

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Exemplars

- Key examples of student assignments chosen so as to be typical of designated levels of quality or competence

- Illustrate dimensions of quality and clarify assessment expectations

- Represent what can feasibly be accomplished by a student, rather than a perfectionist ideal (i.e. model answers).

- Help develop students' evaluative expertise (i.e. apply criteria, self-assess, make informed judgments about what they are learning to do)

ILO: The pupil knows the priority sequence of operations in mixed expressions where brackets, indices, roots, multiplication, division, addition and subtraction are applied.

	LEVEL 1	LEVEL 2	LEVEL 3
1	$-2 \cdot 3 + 7 - 12 =$	$5 \cdot (-5 + 7 \cdot (2 + 18 - (2 + 3 \cdot 3 + 2)) \cdot 4) =$	$\dfrac{-\left(\left(5 - \left(7 - (3 + (12 \cdot -5))\right)\right)\right) + 3 \cdot 5 - 17}{2 \cdot \left(1\frac{1}{4} \cdot 8 \cdot (-3 - 2)\right)}$
2	$3^2 \cdot (3 + 12) - \sqrt{36} =$	$\left((5^2 - (3 + 2) \cdot 2 + 5) - \sqrt{144}\right)^2 =$	$\left(\dfrac{((7 \cdot 3^2 - 5) - (8^2 : 8 + 5 \cdot 3))}{(100 : 25 + \sqrt{16}) - (6 : (8 - 2))}\right)^2 =$
3	$-\sqrt{49} + 5 \cdot (2 + 3^2 \cdot 2) - 7 \cdot 3^2 =$	$\sqrt{3 + ((3^2 - 2) \cdot 3 + 7 : 7)} =$	$\dfrac{\sqrt{(5 - (3 - 5) \cdot -2 + 3) + 12}}{-(-(-3 - 2 \cdot (5 \cdot (2 + 1^2 - 3))) - ((-5 \cdot 5 - 2) : 3))} =$
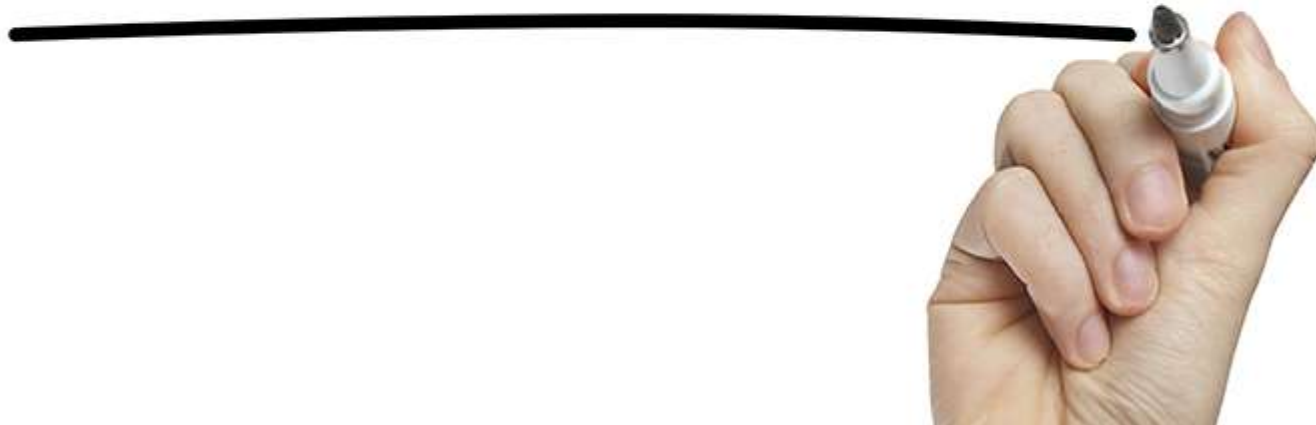
Adjusting your action plan for improvement

- At the beginning of the session you reflected on your experience of implementing your action plan.

- Based on this reflection and on the new content presented today, adjust your action plan.

➢ *Remove actions that you found difficulties implementing and/or you found ineffective*

➢ *Continue actions that were helpful and were easy to implement*

➢ *Add new actions that relate to this session's objectives*

You can use the sample action plan provided for ideas.

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Until the next meeting:

➢Implement the actions mentioned in your action plan

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Thank you for your time!

For support/ enquiries please contact:
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