Research Schools Network

Formative Assessment

James Crane

What is the difference between summative and formative assessment?

Formative Assessment

Formative assessment is the on-going assessment of small chunks of the curriculum, to find out what students know and understand in order to inform teaching and planning.

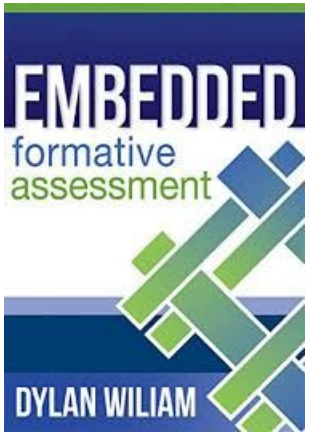

gettyimages
Ian Walton
591928392

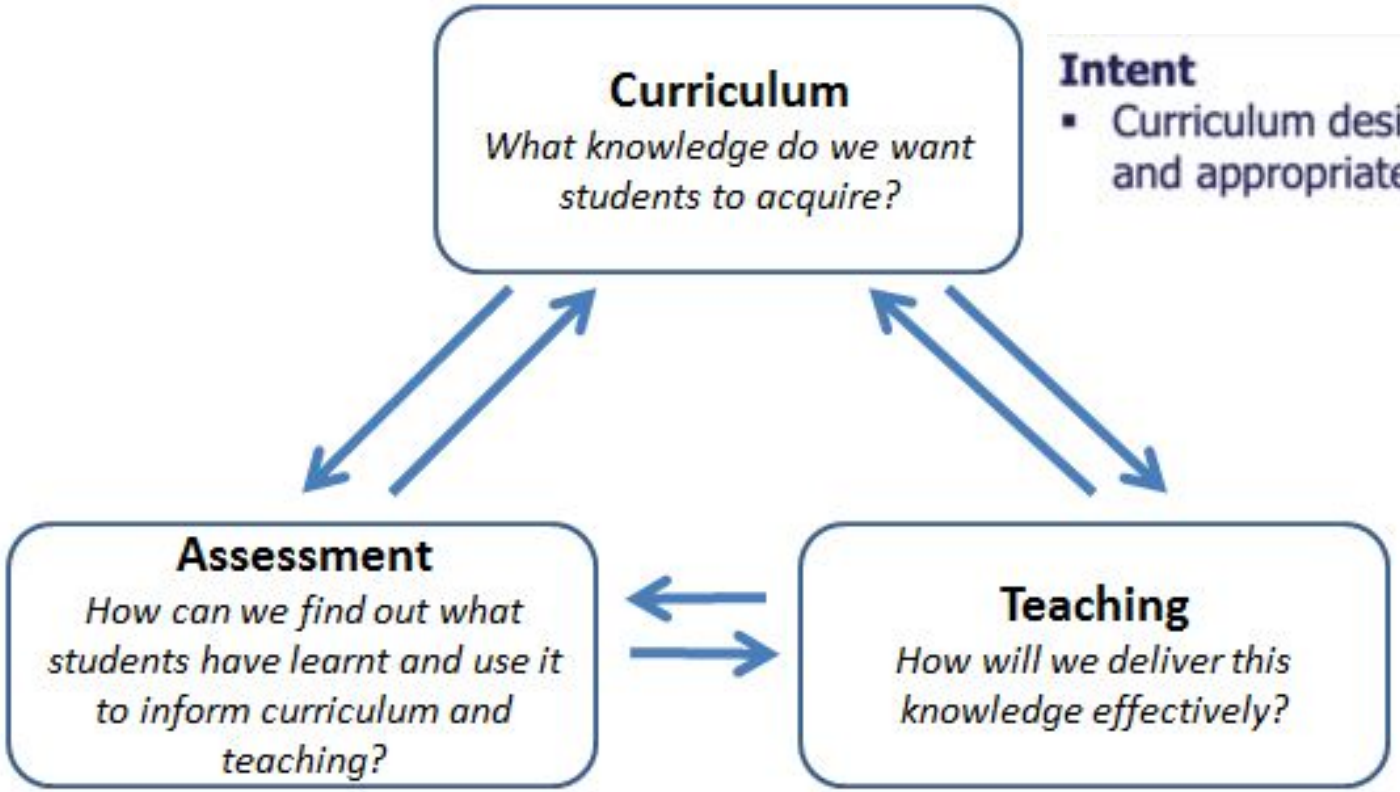
Summative Assessment

The occasional assessment of larger chunks of the curriculum to provide valid and, as far as possible, reliable information about student learning and performance. For most subjects this takes the form of test and would involve the assigning of a grade.

Dylan Wiliam

"Assessment is the bridge between teaching and learning"





Intent

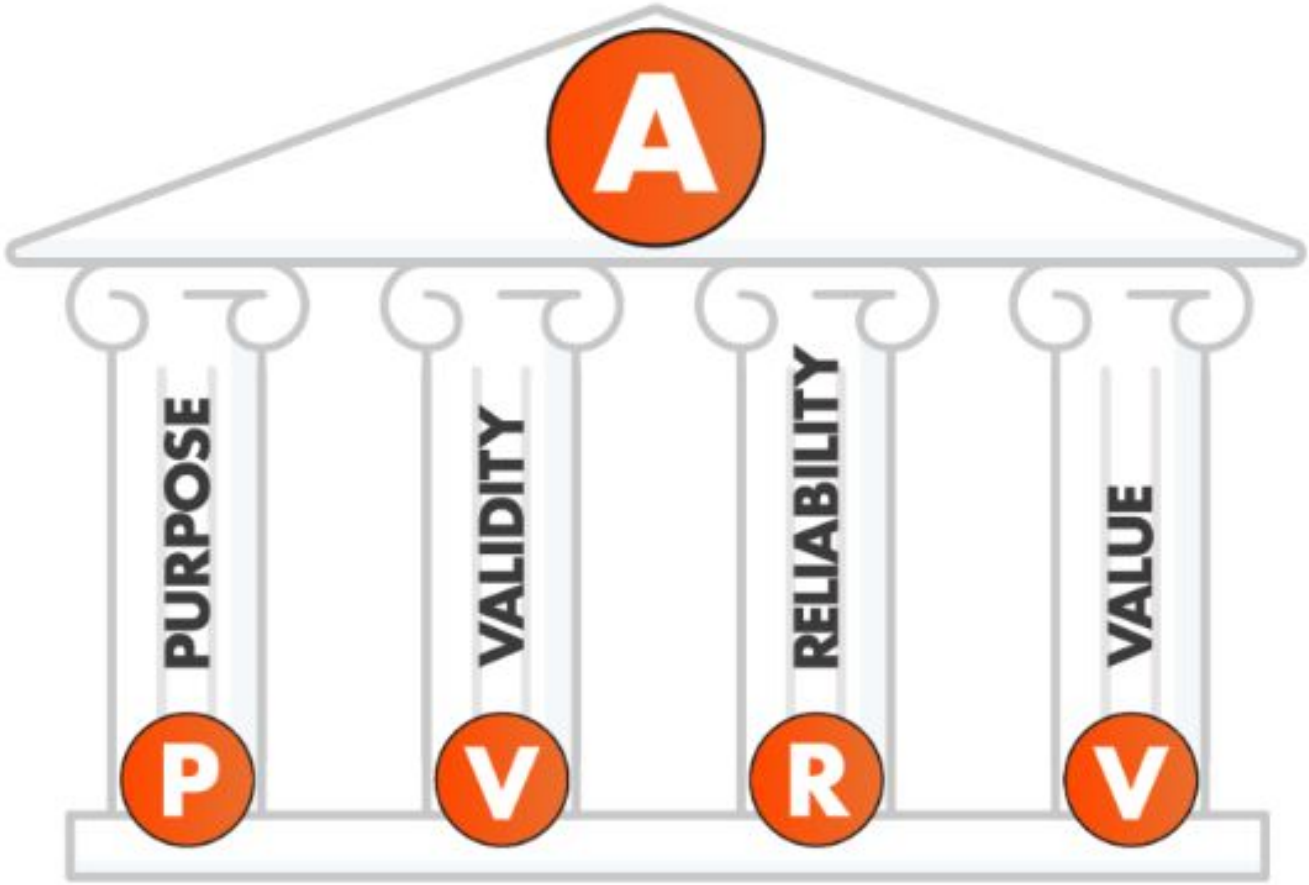
- Curriculum design, coverage and appropriateness

Impact

- Attainment (qualifications and assessments)
- Progress
- Knowledge and skill development
- Destinations

Implementation

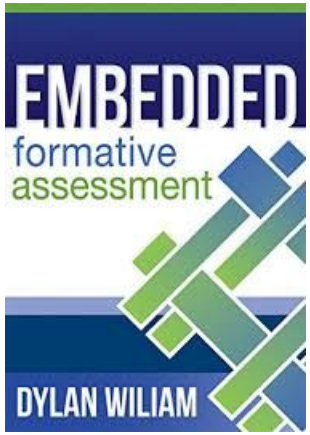
- Curriculum delivery
- Teaching (pedagogy)
- Assessment (formative and summative)

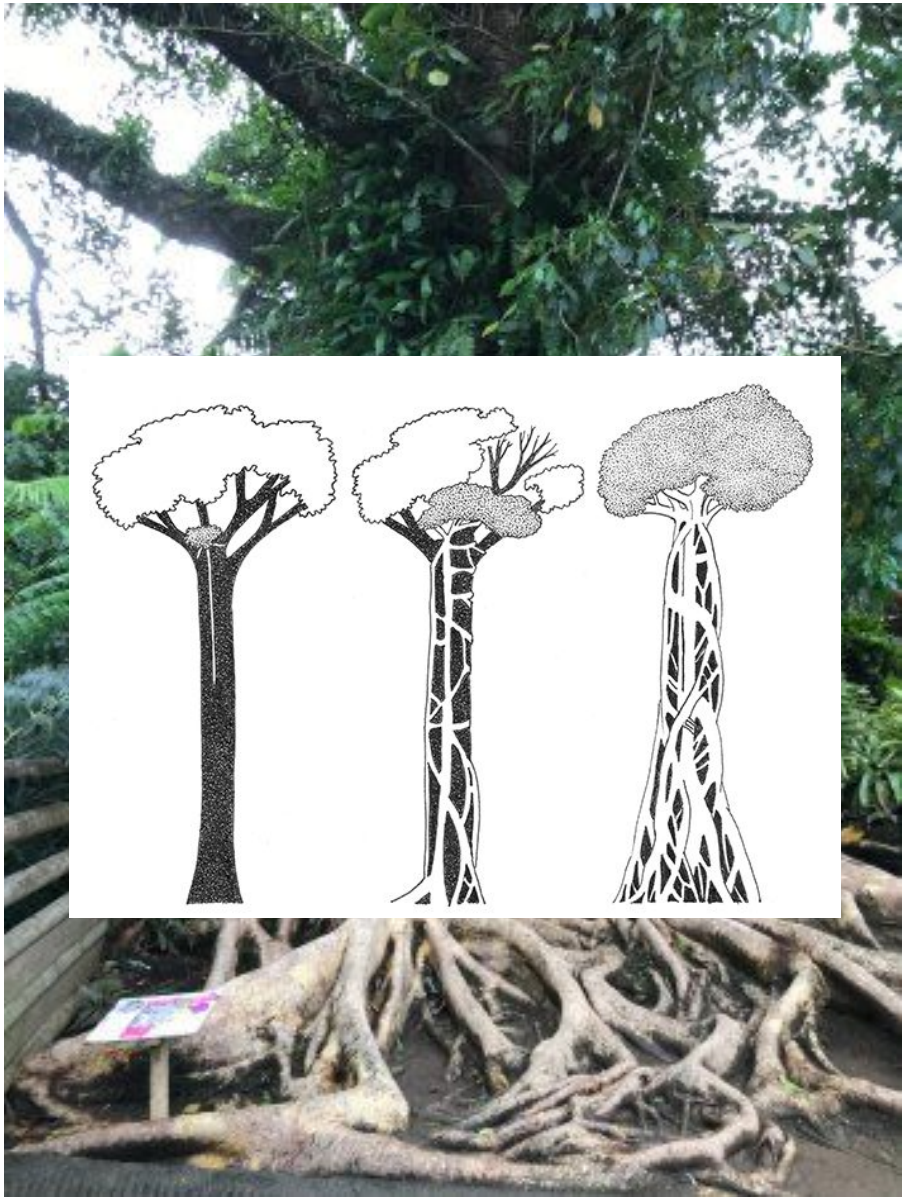


https://f.hubspotusercontent30.net/hubfs/2366135/The%20Four%20Pillars%20of%20Assessment.pdf

Dylan Wiliam

"When formative assessment practices are integrated into the minute-by-minute and day-by-day classroom activities of teachers, substantial increases in student achievement – of the order of a 70 to 80 per cent increase in the speed of learning are possible."





Formative

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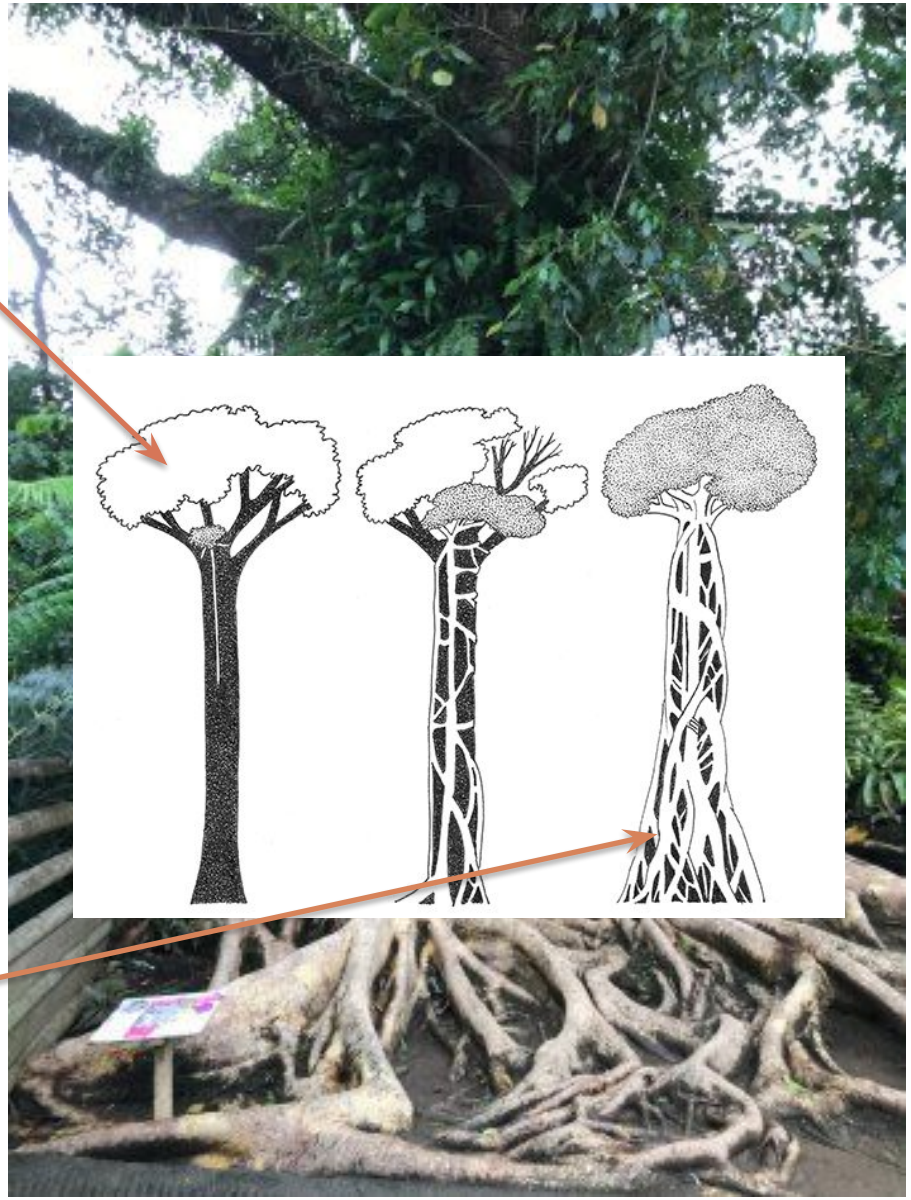
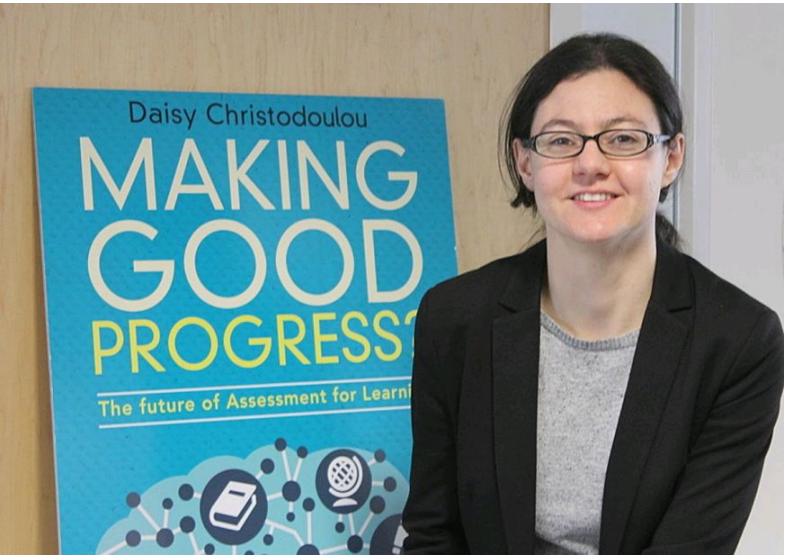


Summative

Professor Becky Allen

"Teacher accountability is the enemy of inference."



Specific:

Specific and precise questions allow teachers to easily identify next steps

Features of successful formative assessments

Frequent:

- Frequent retrieval improves learning and checks if pupils have really understood something

Assessment in two layers

Formative – ongoing, ungraded and focused on smaller chunks of the curriculum.

Summative – 3 times per year. Knowledge included will build cumulatively through the year.

Connection between assessment and curriculum/teaching

Formative assessment takes priority.

ACTIVE INGREDIENTS

Attainment over progress

Standardisation

Useful data

- Quizzes
- Multi-choice questions
- Reading or observing student work (either during or after a lesson)
- Breaking a complex task down into several component parts and assessing one part at a time.
- Spelling and vocabulary tests
- Filling in blank knowledge organisers
- Written plans
- Questioning
- Formative use of summative assessments

Formative Assessment

Getting the best possible evidence about what students have learned and then using this information to inform teaching and curriculum.

Quizzes and multiple-choice questions

- Include common misconceptions within the possible answers, have 2/3 distractors, have more than one correct answer and across time, use a variety of stems.
- Incorrect answers should be plausible.
- Students should be able to explain why the answer is correct and why the others are not.
- Use regular quizzing to reveal to students where the gaps in their knowledge are.
- Use checklists alongside quizzes to support and allow students to assess their own strengths and areas of weakness.

Reading work or observing students *at* work

- Monitor body language and classroom atmosphere to gain a sense of how students are coping.
- Be clear on what you are looking for – what is the focus?
- Use a formative assessment book to check students work (engage students in the discussion).
- There is no point finding something that needs fixing and not fixing it.
- Look for good student examples and use these as worked examples.

Diagnostic Questions

- Based on feedback from formative assessment, plan questions and who you are going to ask.
- Closed questions are fine, if used appropriately.
- Factual knowledge is as important as procedural analysis and evaluation.
- Elaborative, probing and Socratic questions to check for deeper understanding and if students know why the answer is correct.
- Don't accept "I don't know" responses.

Chunking – (assessing composite parts of a complex task)

- Explicitly teach all of the steps including the most basic starting point.
- Break down all parts and give feedback on all aspects.
- Plan all of the steps beforehand.
- Elicit understanding of why students use certain structures and processes.
- Don't move on until each step is mastered.
- This should include planning, monitoring and evaluating.
- Explicitly teaching metacognitive thinking around the most difficult processes or concepts.

Formative Assessment – Audit

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Multiple choice questioning and low stakes quizzes			
• Include common misconceptions within the possible answers, have 2/3 distractors, have more than one correct answer and across time, use a variety of stems. Examples can be found here.			
• Incorrect answers should be plausible. Examples can be found here.			
• Students should be able to explain why the answer is correct and why the others are not.			
• Use regular quizzing to reveal to students where the gaps in their knowledge are.			
• Use checklists alongside quizzes to support and allow students to assess their own strengths and areas of weakness.			
Reading or observing students work			
• Monitor body language and classroom atmosphere to gain a sense of how students are coping.			
• Be clear on what you are looking for – what is the focus?			
• Use a formative assessment book to check students' work (engage students in the discussion).			
• There is no point finding something that needs fixing and not fixing it.			

- **Uncover thinking:** We learn in the context of what we already know. Therefore, if a student has missed a series of lessons and then is taught new content without the context of the preceding lessons, the chances are they will misunderstand some or much of what is being taught. Therefore, teachers must seek to uncover the thinking that is going on. Explanation needs to be punctuated with questioning and when referring back to a previously taught concept, check that it is deeply understood by asking multiple elaborative questions.
- **Diagnostic questions:** These are questions designed to uncover common misconceptions and supply teachers with immediate feedback as to whether students have understood something well enough to move on. As Dylan Wiliam writes:"For the purpose of rapid assessment of student learning...a single well-chosen question can provide enough information to direct instruction in real-time, provided the item is chosen carefully". Using these will help teachers to uncover both whether a class or individuals are ready for the next chunk of the curriculum. For more detail, you can read this blog published on our site in November.
- **Check books:** Many schools have moved away from generic marking policies that enforce written feedback on classwork. There are sound evidence-based reasons for these decisions informed by documents such as the EEF's A Marked Improvement? and I would include our school as one of them. However, one of the unintended consequences of this may be that we spend less time looking at the physical output of our students. Spending 20 minutes flicking through a set of books, and making a few notes on common misconceptions or poorly executed tasks can help teachers see where the gaps are and inform short and medium term planning.

- **Big picture re-caps:** Where you have a class where several students have missed different chunks it is important to keep placing the learning in its overall context. Pausing to recap learning is a good way of doing this. For example, a history teacher could pause and, starting with blank timeline, jointly construct a completed version using the events covered in the previous 5 or 6 lessons. This would allow students to plug some of the gaps, albeit to a limited extent, that they may have from missing some lessons. To make this more responsive, having finished the tasks students could highlight which events their knowledge is weakest on, allow the teacher to scan books and recognise which need more in-depth re-capping.
- **Mini whiteboards:** As explained by Deb Friis in her blog just before the break, these can be (when used correctly) an excellent aid to support responsive teaching. Where we have a class of students who have missed different chunks at different times, this can be a time efficient way for the teacher to see where the gaps are. There are of course potential drawbacks to using them as Deb refers to in her blog, but many of these are connected to routines and organisation.
- **Use concrete examples:** Not strictly responsive teaching, but included as a way of mitigating the negative effective of multiple students having missed several lessons. When teaching new content use lots of commonly understood analogies or metaphors to allow all students to make sense of the new information. By doing so you give the students who were missing for preceding lessons and therefore have less well developed schemata on the topic, a greater chance of assimilating the new information.

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