Excellence in Teaching Programme

What is formative assessment?

What are the criteria that make formative assessment effective (what MUST it do?)

“All those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged” (Cowie & Bell, 1999)

“the process used by teachers and students to recognise and respond to student learning in order to enhance that learning, during the process” (Cowie & Bell, 1999)

“Assessment carried out during the instructional process for the purpose of improving teaching and learning” (Shephard et al, 2005)

“Frequent, interactive assessments of students’ progress and understanding to identify learning needs and adjust teaching appropriately” (OECD, 2005)

“A tool that teachers use to measure student grasp of specific topics and skills they are teaching. It’s a ‘midstream’ tool to identify specific student misconceptions and mistakes while the material is being taught” (Kahl, 2005)

Embedded formative assessment
Dylan Wiliam

“An assessment functions formatively to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have made in absence of that evidence” (P.48)

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Elicit evidence

Student achievement (all)

Change subsequent instruction

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1. It must help find evidence of student understanding
2. It should make us take action
3. It should inform our decisions on subsequent instruction
4. These decisions and subsequent instruction should be better as a result

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1. Clarifying, sharing, and understanding learning intentions and success criteria
2. Eliciting evidence of learning
3. Providing feedback that moves learning forward
4. Activating learners as instructional resources for one another
5. Activating learners as owners of their learning

Embedded formative assessment
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How do you know what every child in your class knows?

How do you know when to move on in a lesson?

Learning is invisible

We can only see performance in lessons

Performance is a poor indicator of learning

I.R.E

Professor Rob Coe
Robert Bjork

Research facts about questioning in the classroom:

- Levin & Long (1981) – We ask 300-400 questions a day.
- Levin & Long (1981) – Average question is asked every 43 seconds.
- Walsh & Sattes (2005) – we wait less than a second for a response.
- Marzano (2001) – 80% of teacher instruction involves asking questions
- Brown & Wragg (1983) – 57% of questions were managerial, 33% were recall, and 8% required students to analyse, make inferences, generalise….
- Gall (1984) 60% recall, 20% deep thinking, 20% procedural

Research facts about questioning in the classroom:

- Gall (1984) – Low level questions better for novices or low achievers. High level questions better for experts or high achievers.
- Sadker & Sadker (1985) – 25% of students never participate in answering questions.
- Strother (1989) – student who were regularly asked questions did better on subsequent achievement tests than those who were not

Strategies: Posing questions

Technique 11: No Opt Out

"It's not ok not to try"

Pose the question

Support with expectations	Support with a prompt	Support with a link or cue
"Remember we all need to have an answer, I'll come back to you" "I know we have covered this so I'll give you ten seconds to heck your notes"	"If I say that the word dilation means for something to shrink or reduce in size, what is the.." "Class, can you remind us of the first law?"	"Who can tell x where to find the answer?" "Who can tell x what the first thing he should do is?" "Who can explain where she might have gone wrong?"

Technique 32 & 33: Cold Call and Wait time

“Allow time to think” “Call on students regardless of them raising their hands”

+ High ratio of engagement
+ Everyone thinking
+ High performing classroom

- I don’t know
- Fear of pace

Technique 32 & 33: Cold Call and Wait time

Time to try

1) Teacher
2) Student
3) Student
4) Student
5) Observer/Coach

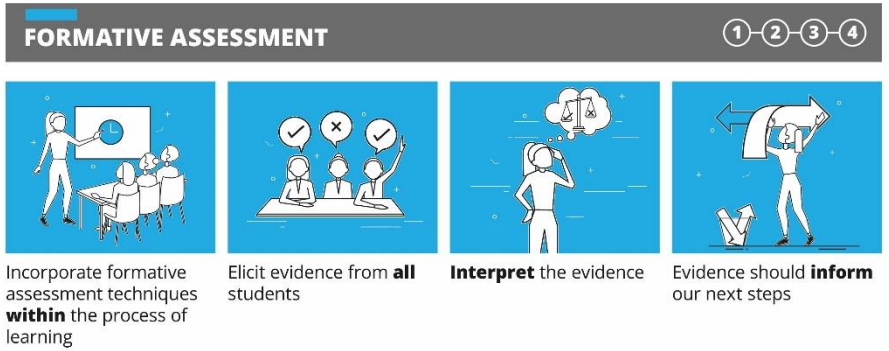
Rotate roles

1) Exit tickets improve planning

An exit ticket provides a focus for the lesson: this helps us plan better. Writing an exit ticket can help us to clarify our objectives: if it's proving hard to formulate a good question, this may show that our objectives are:

- Too nebulous (if we want students to 'understand the causes of the First World War' or 'appreciate the impact of logging on the Amazon')
- Too numerous (if we are hoping students will understand Act I, Scene 3, write a character sketch and practise their public speaking delivering it to the class)
- Too ambitious (if students are to be able to 'convert fractions, decimals and percentages' in a lesson)

Designing an exit ticket may lead us to revise and narrow our



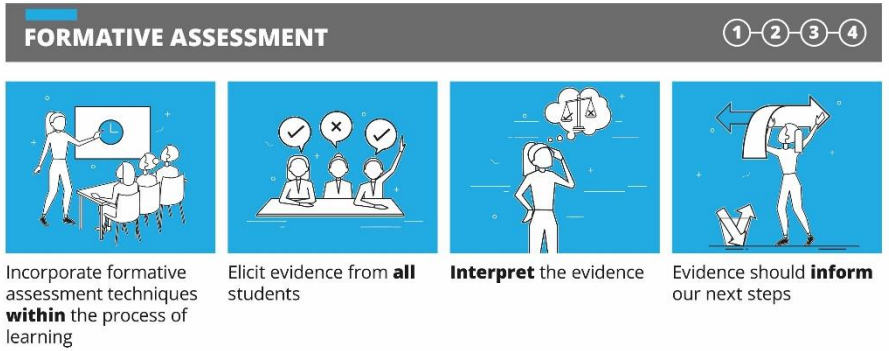
Exit tickets

Show Me: Maximising the Use of Mini Whiteboards in Lessons

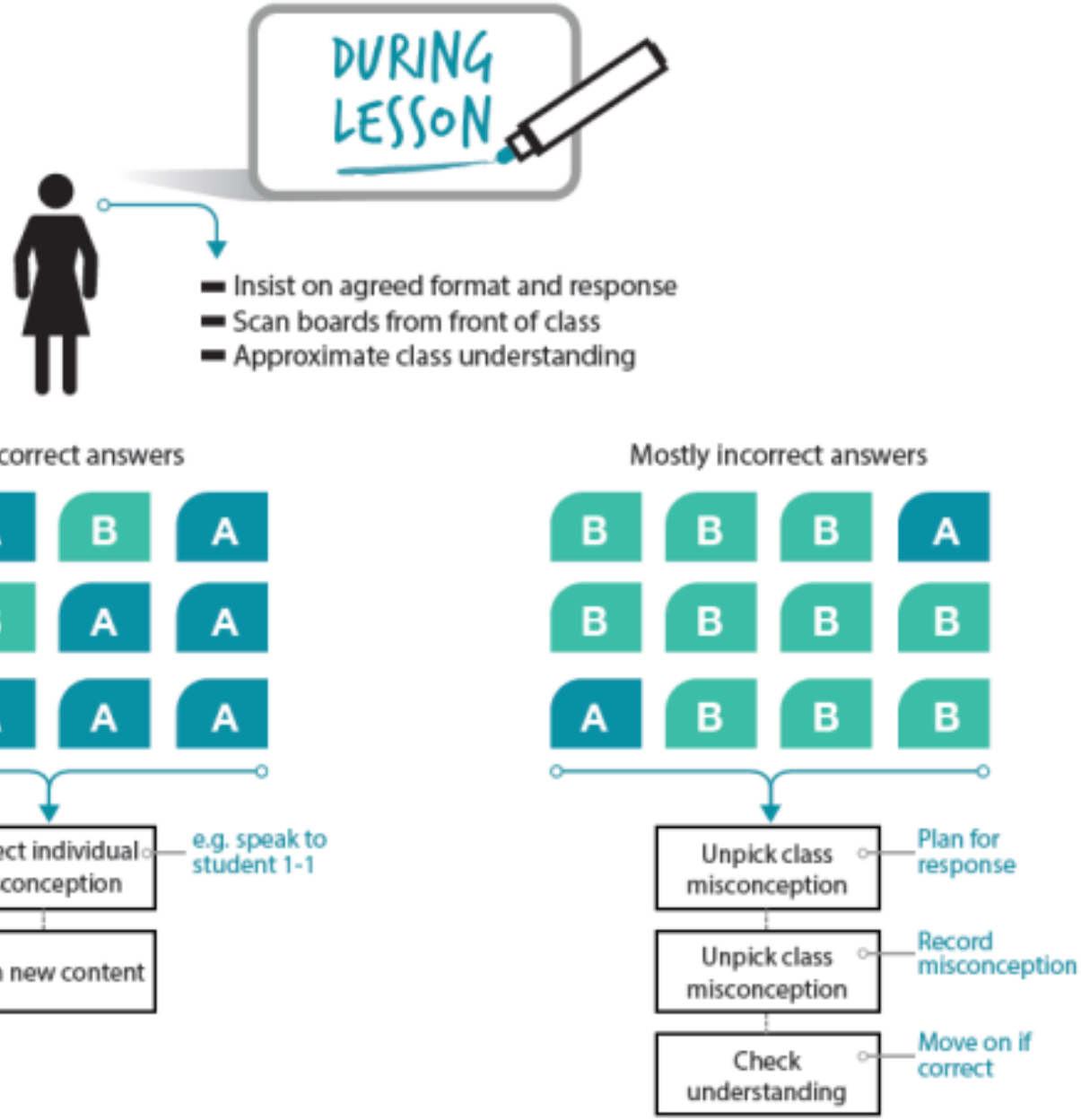
Mini whiteboards can be an excellent way to gather information about class 'understanding' quickly and efficiently. When used badly, however, they cease to be an effective responsive teaching tool, and they can get in the way of learning and become a distraction. This post draws upon some of Doug Lemov's ideas in *Teach Like a Champion* 2.0 (Show Me – technique no. 5), along with my own experiences, to offer some tips on on how to maximise your use of mini whiteboards.

Before the Lesson:

Plan questions in advance



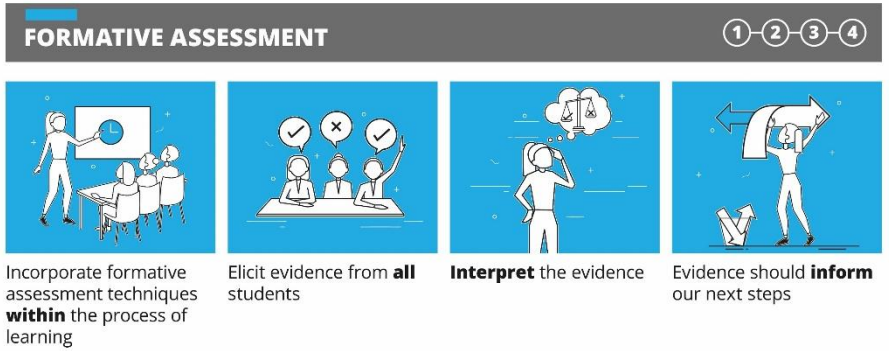
Mini Whiteboards


DURING LESSON
Insist on agreed format and response
Scan boards from front of class
Approximate class understanding
Mostly correct answers
A A B A
A B A A
A A A A
Correct individual misconception
e.g. speak to student 1-1
Teach new content
Mostly incorrect answers
B B B A
B B B B
A B B B
Unpick class misconception
Plan for response
Unpick class misconception
Record misconception
Check understanding
Move on if correct

Phil Stock

Rationale

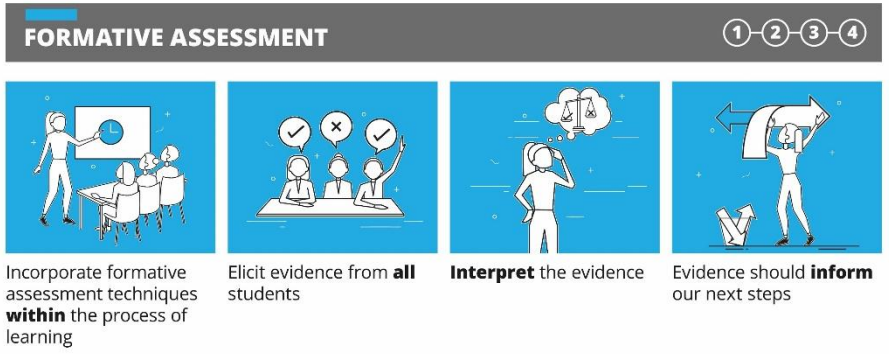
This is a brief item of formative assessment which enables the teacher to know whether it is appropriate to move on, to briefly recap, or completely reteach, a concept before moving on – what Dylan Wiliam calls the most important decision a teacher has to make on a regular basis. If you get this wrong and some students have not understood, then the next activity may well fail for many students – because the concepts build one on another. if you get this wrong and reteach pointlessly, then engagement will slip and time will be wasted – although this is far less likely I suspect!



Hinge Questions

Guidance:

- "What makes a question useful as a diagnostic question, therefore, is that it must be very unlikely that the student gets the correct answer for the wrong reason"
- "The point is that, with this [type of] question, the teacher gains concrete evidence about students' learning *without* having to have the classroom discussion"
- It needs to have numerous valid options (which aren't exactly correct) so that the teacher can really see if the students' have chosen the right answer for the right reason.
- Many of the valid options are designed from historic misconceptions – so use your experience of what previous cohorts have gotten muddled up on.
- These are most useful in the middle of an instructional sequence to check whether students have understood something before moving on.
- 1) It should take less than 2 minutes (ideally 1 minute) for all students to respond. 2) It must be possible to view and interpret the responses in less than 30 seconds.



Hinge Questions

p. 110-120

Not drawn accurately

What is the size of the angle marked p?

A

125°

B

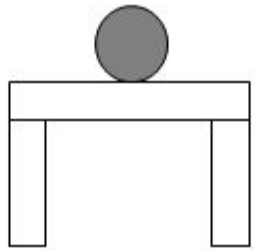
65°

C

115°

D

85°



The ball sitting on the table is not moving. It is not moving because:

A. no forces are pushing or pulling on the ball.
B. gravity is pulling down, but the table is in the way.
C. the table pushes up with the same force that gravity pulls down
D. gravity is holding it onto the table.
E. there is a force inside the ball keeping it from rolling off the table

Wilson & Draney, 2004

Assessment for Learning (AfL)

1. It is a form of formative assessment
2. It must help find evidence of student understanding
3. It should make us take action
4. It should inform our decisions on subsequent instruction
5. These decisions and subsequent instruction should be better as a result