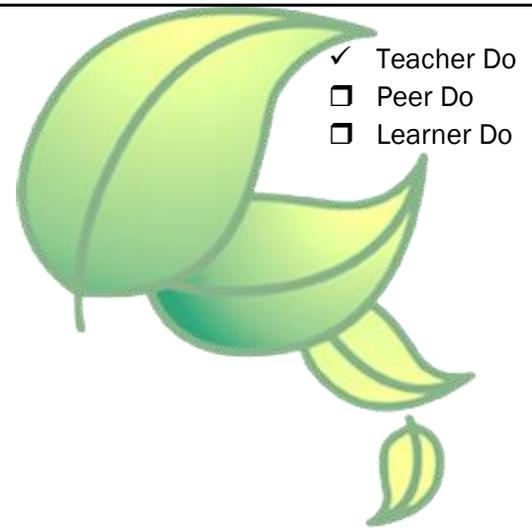


Eliciting Evidence of Student Achievement



“When we, as teachers, ask students a question, and we get the answer we were hoping for, we tend to conclude that the students’ learning is heading in the right direction.”

(Wiliam, 2011, p. 73)

Questions that surface misconceptions can let teachers know what direction the learning is heading.

What does this mean? Some dilemmas...

- Children are active in their construction of knowledge. It is impossible to control learning environments to the point that they will never make a misconception. The key is to expose misconceptions and deal with them.
- How do teachers spend professional time? Often it is in planning and grading student work alone. This inhibits peer collaboration around instruction, assessment and developing key questions.

“What seems like a misconception is often a perfectly good conception in the wrong place.” (Wiliam, 2011, p.

“...grading can be seen as the punishment given to teachers for failing to find out that they did not achieve the intended learning when the students were in front of them.” (Wiliam, 2011, p. 78)

Asking Questions

Wiliam (2011) suggests that there are only two reasons to ask questions in a classroom:

1. To cause thinking ie. discussion questions.
2. To provide information for the teacher about what to do next by determining what students know about a topic before and during instruction i.e. diagnostic questions

Practices that inhibit both of these things are:

- Asking students to raise hands if they know the answer.
- Identifying students who are going to answer prior to the question being posed.

Questioning techniques directly impact the amount and type of thinking done by learners. Practices that encourage single learner participation increases achievement gaps, as those that choose to participate will learn more, while those that choose not to participate will learn less.

Evaluative and Interpretive Listening

Evaluative – listening for correctness of answers in order to compare student understanding to preset criteria for grading or reporting. Evaluative listening is summative ends learning.

Interpretive – listening to learn from others in to better understand thinking processes, procedures, and conceptual understanding to determine next steps. Interpretive listening is formative and extends learning.

All-Student Response Systems

Every student needs the opportunity to respond in real time to the questions being posed.

Physical response techniques	ABCD (T/F) Cards	Mini White Boards	Exit Passes
<ul style="list-style-type: none">• using parts of the body to indicate a response• fingers, stand/sit	<ul style="list-style-type: none">• used with diagnostic/hinge questions where the options are used to reveal misconceptions• used with discussion questions where there is no right or wrong answer	<ul style="list-style-type: none">• often used with open ended questions• used where making thinking visible is important	<ul style="list-style-type: none">• allow for longer responses where a natural break in instruction occurs

When to move on?

“Whether to go over something one more time or to move on is a professional decision that the teacher must make.” (William, 2011, p. 77)

A teacher needs to take a number of factors into account when deciding when to move on. Some aspects of curriculum may be important but not vital to success later on - a student who fails to fully know a concept may still be able to progress in the future.

William’s Wisdom

- Wait time = thinking time. This is best determined by considering learner profile and type of question. i.e. a conceptual question will require more thinking time than procedural question.
- There is not enough time to teach each student as an individual, but the classroom can be engaging and we can meet all students’ learning needs by determining:
 - what students prior knowledge should be,
 - what student’s prior knowledge is, and
 - the subsequent teaching that follows.
- Possible strategies:
 - Make statements to critique rather than asking a question.
 - i.e.) All squares are rectangles.
 - Frame questions as “Why is ___ an example (or non-example) of ___?”
 - i.e.) Why is carbon not a metal?

Works Cited

William, D. (2011). *Embedded Formative Assessment*. Bloomington, Indiana, United States of America: Solution Tree Press.