Planning for effective questioning

Overview

Effective questioning encourages students to practise retrieval, explain their thinking, and connect new material to their existing knowledge to support schema development (Rosenshine 2012). It causes all students to think and creates high-engagement classroom environments, which can improve student achievement (Wiliam 2014).

Questions must be planned before lessons to ensure they will fulfil their intended purpose (Wiliam 2011). Questions need to focus on the key learning of the lesson. Teachers anticipate what misconceptions might arise, and how to respond if they do. Teachers also consider how to frame questions so they are at the right level of difficulty to engage students (Willingham 2009). Questions should be sufficiently difficult to require some effort for retrieval (Cottingham 2023) but also allow for high success rates to ensure students remain engaged (Martin 2002). High success rates are also important to ensure students are not 'practicing errors' (Rosenshine 2012:17).

When planning questions, teachers also consider the best response system, matching for question complexity, length of anticipated responses, and the wait time students will need to respond. Using a variety of methods encourages active participation by supporting students in expressing their learning while catering to diverse needs (AERO 2024).

Key considerations for retrieval practice

- Create a list of the key prior learning students need to practise retrieving.
- Create questions or prompts which will cause students to retrieve this information from long-term memory.
- Develop questions for success – most, if not all, students should experience success retrieving prior learning.
- Consider wait time and which response system to use.

Key considerations when developing complexity in student thinking

- Plan question sequences to progressively challenge students.
- Use scaffolding to revisit and deepen understanding without repetition.
- Wait time will need to increase with complexity of the questions.
- Consider which response system will best enable students to communicate their thinking.

> " *More effort has to be spent in framing questions that are worth asking.*
>
> (Black et al. 2003:41)

Classroom application

Planning questions to develop complexity

- The table on the next page may be useful when planning.
- You might like to create a table with the headings 'Retrieve', 'Deepen', 'Connect' and 'Justify'. In some cases you will have questions for each column and in others you may not. This will depend on the context.
- Write questions under the headings. You may find it helpful to work from the right-hand column to the left.

Classroom application

Retrieve	Deepen	Connect	Justify
• What, who, when questions • Expect success • Shorter wait time (3 seconds) **Response systems can include:** • Choral response • ABCD cards • Cold calling	• How, why, explain questions • Give prompts if needed for success • Longer wait time (5 or more seconds) **Response systems can include:** • Cold calling • Mini whiteboards • Think-Pair-Share • Extended written response	• Cause and effect, how is x similar (or different) to y • Give prompts if needed for success • Longer time needed for thinking and working **Response systems can include:** • Class discussions • Concept maps • Extended written response	• Do you agree or disagree with this statement? Why do you say that? How do you know? • Longer time needed to prepare responses **Response systems can include:** • Class discussions • Debate • Extended written response

Primary English example

In planning a Stage 2 English lesson about how figurative language is used in an identified text to create imagery, the teacher plans questions that can be used to check for, consolidate and deepen student thinking.

Key concept	Retrieve	Deepen	Justify
Identify and experiment with figurative language to create imagery.	What is figurative language? What is the purpose of using figurative language? What is imagery? **Wait time:** 3 seconds each **Response system:** cold calling	How do authors use figurative language, such as similes, metaphors and onomatopoeia, to create imagery for the audience? How would you use figurative language in a sentence to create imagery for the audience? **Wait time:** 5 seconds plus response time in pairs **Response system:** Think-Pair-Share	How has the use of figurative language created imagery and a richer meaning for the audience? (of a particular text) **Wait time:** 30 seconds for 'think and write' before class discussion **Response system:** class discussion

Secondary Technology example

In planning a Stage 4 Technology lesson about different timbers and the effect of using a plane, the teacher plans questions that can be used to check for, consolidate and deepen student thinking.

Concept	Retrieve	Deepen	Justify
Understanding timber qualities when planing.	What is the purpose of using a plane? What is wood grain? How is wood grain formed? What are the different types of grain patterns? How does the grain affect the smoothness and appearance of the finished surface? **Wait time:** 3 seconds each **Response system:** cold calling	Why is it important to go with the grain when planing wood? How do different types of grain patterns affect the planing process? How does the direction of the grain influence the angle and technique used in planing? What are some strategies that can be used to overcome tear-out and splintering when planing against the grain? **Wait time:** 3 to 5 seconds each **Response system:** mini-whiteboards	What challenges did you face when planing wood? How did you overcome them? How can your own planing technique be improved? **Wait time:** 30 seconds for 'think and plan' before starting extended response **Response system:** extended written responses

Using effective questioning resources

[QR code] https://edu.nsw.link/explicit-teaching-using-effective-questioning

More resources

NSW Department of Education – checking for understanding
https://education.nsw.gov.au/teaching-and-learning/curriculum/explicit-teaching/explicit-teaching-strategies/checking-for-understanding

NSW Department of Education – connecting learning
https://education.nsw.gov.au/teaching-and-learning/curriculum/explicit-teaching/explicit-teaching-strategies/connecting-learning

References

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