

Student response systems

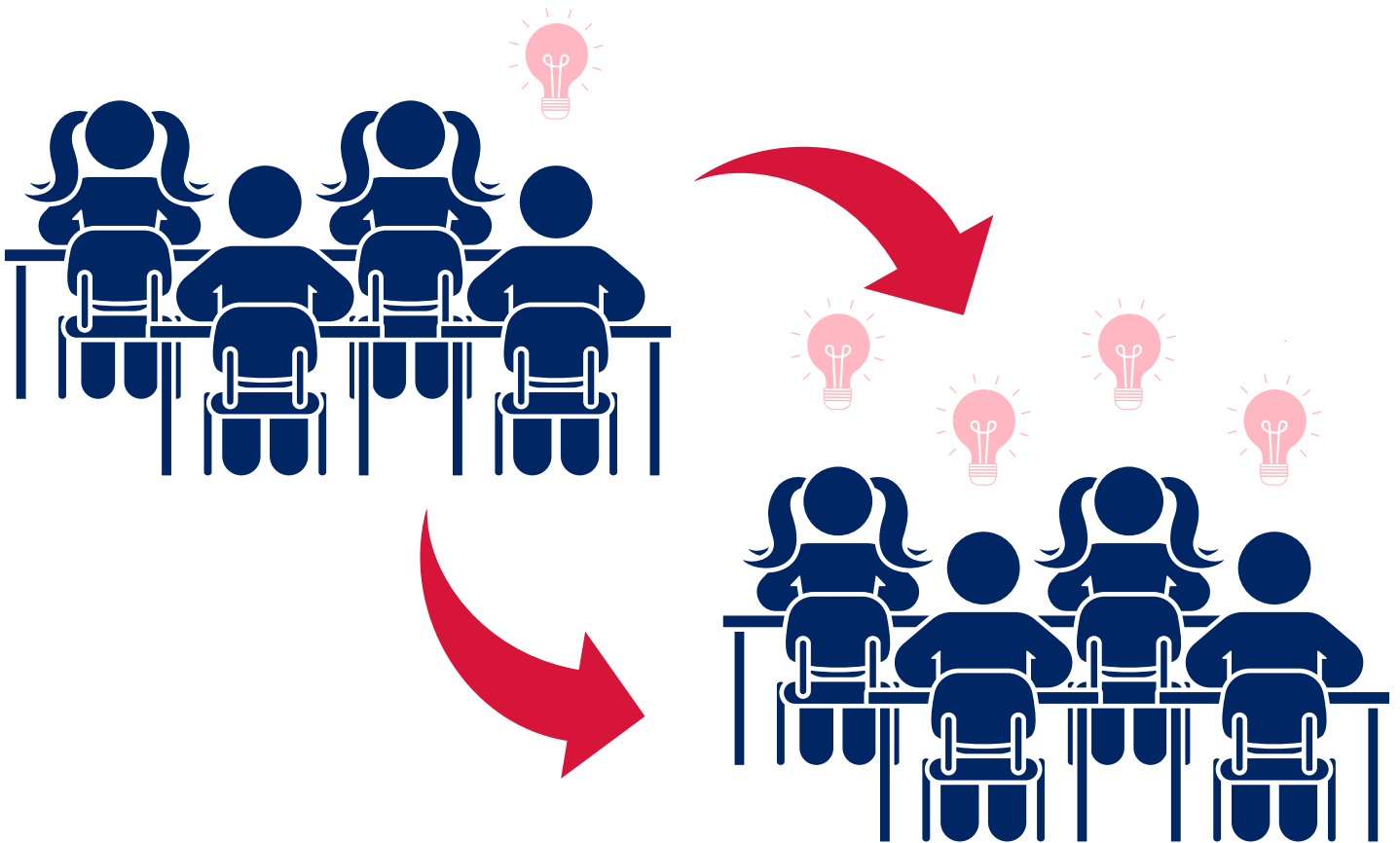
Technique guide

Overview

Teachers use a variety of student response systems to conduct regular low-stakes checks for every student's understanding. Questions are designed to allow for quick responses and fast interpretation by the teacher. By integrating varied checks for understanding into instruction, teachers can better manage students' cognitive load and create further opportunities for them to consolidate and apply their learning effectively.

Key considerations

- Establish routines and participation as a social norm.
- Plan questions at the right level of challenge.
- Use varied techniques to support participation.
- Ensure checks for understanding encourage everyone to think of an answer.



Checking for understanding resources



<https://edu.nsw.link/explicit-teaching-checking-for-understanding>

Classroom application

Choral response

Teacher signals all students to give an auditory answer at the same time.



French lesson

'Say the French word for the following verbs when giving directions'

'Teacher: go

Students: allez

Teacher: turn

Students: tournez'

Why it's effective:

Choral response answers are short, simple and the same, which provides ample practise and opportunity to self-correct.

Mini whiteboards

All students respond individually and then show their answers to the teacher simultaneously.



Mathematics lesson

'On your mini whiteboards, continue the next 3 numbers in the number pattern, starting with 4, 8, 12... Display your answers at the same time, when I say.'

Why it's effective:

The teacher can quickly see incorrect answers and respond.

Gesture voting

At the same time, all students demonstrate their understanding by using gestures to indicate an answer to a check for understanding question, such as yes or no, true or false, or multiple-choice using one to 4 fingers.



HSIE Lesson

True or false: Australia has more than one level of government? Vote with a thumbs up if you agree, thumbs down if you disagree, or thumbs sideways if you aren't certain.

Why it is effective

As part of a familiar routine, gesture voting supports all students to participate. The teacher assesses all students' understanding, to inform re-teaching when necessary.

Response cards

Pre-printed response cards enable students to give quick, individual responses to multiple-choice questions posed during class.



PDHPE Lesson

The teacher displays 4 images of breakfast food and asks, 'What is the healthiest breakfast option?'. The images include options that show a correct answer, a nearly correct answer, a key misconception and an incorrect answer. When prompted, students display the card that corresponds with their answer.

Why it is effective

All students are encouraged to respond as there are limited options to select from. They can be used to quickly identify misconceptions in students' understanding.

Cold call

Pose a question, pause and then choose a non-volunteer to answer. It is important to establish a predictable cold-calling routine. When routines are taught and used consistently they help to maintain safe, inclusive learning environments. This technique can be partnered with a Think, Pair, Share to mitigate students' perception of risk.



Science lesson

'Name a specialist animal cell and describe its structure (wait 3-5 seconds), Mateo?'

Why it's effective

As students grow in knowledge and confidence, the teacher's questions elicit thinking from everyone.

Dylan Wiliam has said 'Teachers need to be constantly checking for understanding and involving all students, not just the ones who want to share their ideas.'

(Martin and Grau 2024)

More resources

AERO – Monitor progress

<https://www.edresearch.edu.au/guides-resources/practice-guides/monitor-progress>

Effective multiple-choice assessment to inform teaching

<https://education.nsw.gov.au/inside-the-department/teaching-and-learning/supporting-learning-and-development/assessment/assessment-professional-learning/effective-multiple-choice-assessment-to-inform-teaching>

Explicit teaching – Leading explicit teaching

<https://education.nsw.gov.au/teaching-and-learning/curriculum/explicit-teaching/leading-explicit-teaching>

Formative Assessment and Its Impact on Education

<https://science-teaching.org/learn/talks/formative-assessment-and-its-impact-on-education-with-dylan-wiliam>

Inclusive practice – Response cards – implementing evidence-based teaching practices for students with disability

<https://resources.education.nsw.gov.au/detail/IPR-LD230602164447>

Reference

Martin and Grau | (2024) Hector Ruiz Martin and Gemma Grau interviews Dylan Wiliam: *Formative Assessment and Its Impact on Education [interview transcript]*, International Science Teaching Foundation, accessed 16 September 2024.

<https://science-teaching.org/learn/talks/formative-assessment-and-its-impact-on-education-with-dylan-wiliam>