Australian Education Research Organisation

Formative assessment

Know where your students are in their learning

Australian Professional Standards for Teachers | Focus Area 5.1: Assess student learning

This guide is one in AERO's *Tried and tested* series on evidence-informed teaching practices that make a difference. Teachers can use these guides to reflect on their classroom practice and inform their planning for future instruction.

For this guide, AERO has synthesised the most rigorous and relevant evidence-based practices from meta-analyses, systematic reviews and literature reviews. AERO has rated these sources of information against its Standards of evidence, focusing on evidence generated in an Australian context where possible.

Formative assessment refers to the variety of methods teachers use to gather and interpret information about student learning as learning is taking place. Formative assessment allows teachers to monitor student learning and to adapt their teaching to meet student learning needs. It can also help with students' learning retention by bringing what students have learned to the top of their mind. Formative assessment is most effective when it is a regular part of teaching and learning programs.

Evidence-based practices for applying formative assessment in the classroom are listed below. Note that some of the examples offered may not apply in all contexts, may be more suitable for primary students than secondary students (and vice versa), and/or may look different in different content areas. Reasonable adjustments must be made where necessary to ensure full access and participation for students with disability.

1. **Begin with a deep understanding of what your students need to learn.** This means knowing more than just the curriculum content.

   - Consult the curriculum or syllabus in order to clarify the common progression of learning in the unit you are teaching. Know in advance the critical knowledge that students will need to move onto the next concept and the points at which it will be most important to assess your students' learning to identify understanding[1].
   - Identify what your students may already know (or think they know!) before starting a new unit of work. Consider setting an informal pre-quiz to gain some insight into existing knowledge or misconceptions[2].
   - Know the concepts or skills in this unit that are typically easy or difficult to learn. Be ready to spend more time on the difficult elements and to check their understanding more frequently. You can use previous student data to guide your planning[3].

2. **Set clear and measurable learning objectives.** Convey high expectations and make your students excited about how much they will learn in every lesson.

   - Set learning objectives that are based on student data and aligned to the curriculum. Consult your curriculum and then analyse class- and individual-level student data to identify where your students are at and where they need to be[4].

- Clearly explain the success criteria for each objective. Students should understand what they are expected to learn, where they are currently and the steps for how they can reach the expected learning objective[5].
- Be clear about the purpose and relevance of all tasks for each learning objective. Ensure that during each task, the learning objective is clearly stated and explained[6].

3. **Regularly check for student understanding.** This does not have to be done with a formal examination. Formative assessment typically employs light-touch methods.

- Design simple, low-key assessments, such as quick quizzes or exit tickets that allow all students, irrespective of where they are at in their learning, to demonstrate what they know. These should help identify common student misconceptions, check for retention of learning and assist you to plan future instruction. For example, 'Quick Quiz Friday' is a simple, low-stakes weekly routine that could help you spot content that needs to be revised and help with your lesson planning for the following week[7].
- Ask students challenging questions and prompt them to articulate their reasoning. This will help you assess how much individual students really know; for example, ask questions that begin 'why', 'why-not', 'how', 'what-if', 'how does X compare to Y' and 'what is the evidence for X'[8].
- Keep track of each student's progress. This can help to quickly locate the source of any learning gap or misconception that may develop so that it can be addressed with the student[9].

4. **Provide timely feedback that is individualised where possible.** The nature of your feedback will depend on the nature of the assessment, but some general principles apply.

- Give feedback promptly and check for understanding. Some feedback can be an instant response to a question answered or an action observed. Be honest, constructive and clear – and do not let mistakes go without follow up[10].
- Be specific with feedback and tailor it to the nature of the assessment and the learning objective; for example, feedback in the form of in-text annotations may be useful to help students learn argumentation in essay writing. Regardless of form, feedback should aim to be personalised, with detailed, specific and actionable steps for improvement[11].
- Help students understand what you want from them with your feedback. Where possible, use developmental rubrics with criteria tailored to the specific task and/or work samples so that students understand what is expected. These resources can also help students to become better at self-assessment[12].

The evidence-based practices outlined above are proven to provide the greatest chance of success for addressing learning gaps and disruptions to student learning. These practices will make a difference when implemented in conjunction with: focused classrooms (manage the classroom to maximise learning), explicit instruction (know how to teach your students) and mastery learning (know how to make sure your students learn).

Be honest, constructive and clear – and do not let mistakes go without follow up.

To provide feedback on this guide or view further information, including full references and additional resources, visit AERO's website.

1 Schildkamp, van der Kleij, Heitink, Kippers and Veldkamp, 2020.
2 Heitink, van der Kleij, Veldkamp, Schildkamp and Kippers, 2016.
3 Schildkamp, van der Kleij, Heitink, Kippers and Veldkamp, 2020.
4 Schildkamp, 2019.
5 Black and Wiliam, 1998.
6 Black and Wiliam, 1998.
7 Heitink, van der Kleij, Veldkamp, Schildkamp and Kippers, 2016.
8 Martin and Evans, 2018.
9 Black and Wiliam, 1998.
10 Wisniewski, Zierer and Hattie, 2020.
11 Wisniewski, Zierer and Hattie, 2020.
12 Lane, Parrila, Bower, Bull, Cavanagh, Forbes, Jones, Leaper, Khosronejad, Pellicano, Powell, Ryan and Skrebneva, 2019.