

Explicit instruction

Know how to teach your students

Australian Professional Standards for Teachers | Focus Area 3.3: Use teaching strategies



This guide is one in AERO's Tried and tested series on evidenceinformed 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 <u>Standards of evidence</u>, focusing on evidence generated in an Australian context where possible.

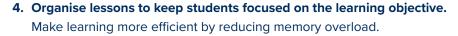
Instruction that is explicit involves fully explaining and effectively demonstrating what students need to learn. This approach to instruction accords with what we know about how the human brain works (i.e. that learning happens most efficiently when teaching is clear, systematic and does not leave students to construct or discover information without any guidance).

Evidence-based practices for implementing explicit instruction 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. Break down complex skills and knowledge into smaller instructional tasks. Sequence these tasks so that students can learn step by step.
 - Chunk learning into small, manageable tasks. By breaking down the curriculum into smaller tasks, you reduce memory overload. This means students can focus on what needs to be learned now rather than trying to learn everything all at once¹.
 - Sequence tasks to meet students where they are at in their learning. Take care to ensure that the tasks build on students' existing knowledge and are neither too easy nor too challenging². For example, when teaching a geography class about Australia's neighbours, your students may first need to learn which countries are Australia's neighbours (so the task is not too challenging), though if your students already know Australia's neighbours, they could instead learn about some of the characteristics of these countries (so that the task is not too easy).
 - Make sure your students master each task before moving onto the next one. You can assess a student's mastery of a topic by formatively assessing students after each task to see what they have and have not learned.
- 2. Use worked examples to demonstrate what your students need to learn. As students become more proficient, gradually remove scaffolding to allow for more independent problem solving.
 - Begin with a 'worked example' that clearly and concisely demonstrates how to complete the task. A worked example shows (or 'models') all the steps required to complete a task or solve a problem; for example, a

fully solved algebraic equation or a step-by-step guide outlining each component required for an essay. Make sure that every step needed to complete the task is fully explained and clearly shown³.

- Supplement this first worked example with others that gradually introduce different elements of the task or alternative ways of completing it. Ensure that each new worked example presents only one new point at a time.
- Remove scaffolding as students become more proficient in a task. This
 means removing steps from worked examples and replacing worked
 examples with independent problem solving or decision-making as your
 students become more expert⁴.
- 3. Provide opportunities for students to practise what they have already learned. Students retain knowledge and skills when practice is deliberate and purposeful.
 - Make sure your students practise more than once. Provide your students with multiple opportunities to practise their skills and deepen their understanding – this also helps to retain learning in long-term memory, so your students will find it is easy to retrieve it in the future⁵.
 - Get students to use what they have learned when practising. Ask questions that call for specific answers and then require your students to explain how their answers were determined⁶.
 - Actively supervise and interact with your students as they practise.
 Provide immediate elaboration and explanations as needed⁷. This does not mean telling your students the answer, but providing prompts and scaffolds as required⁸.



- Begin lessons by explaining to your students what they will be learning.
 Your students should know how each lesson links to prior learning and why it is important for them to learn it⁹.
- Present all the information required to complete a task together (i.e.
 in one place and at one time). For example, present a diagram and
 any necessary explanation in one slide instead of two. This way your
 students do not have to struggle to 'hold' information in their heads while
 simultaneously learning new information¹⁰.
- Remove information that your students already know or is not directly relevant to the task. This will help your students to manage the memory overload of learning something new¹¹.

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 make a difference when implemented in conjunction with: formative assessment (know where your students are), focused classrooms (manage the classroom to maximise learning) and mastery learning (know how to make sure your students learn).



Provide your students with multiple opportunities to practise their skills and deepen their understanding ...

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

- ¹ Hughes, Morris, Therrien and Benson, 2017.
- ² Sweller, van Merriënboer and Paas, 1998.
- ³ Kirschner, Sweller and Clark, 2006.
- ⁴ Martin and Evans, 2018.
- ⁵ Sweller, van Merriënboer and Paas, 1998.
- ⁶ Martin and Evans, 2018.
- ⁷ Martin and Evans, 2018.
- ⁸ Archer and Hughes, 2011.
- ⁹ Ellis and Worthington, 1994.
- ¹⁰ Sweller, van Merriënboer and Paas, 1998.
- ¹¹ Sweller, van Merriënboer and Paas, 1998.

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