

Breaking down content

Explicit instruction in Science



This document provides a suggested outline for facilitating a group session where teachers can use the explicit instruction in science video to reflect on their own practice. It could also provide guidance for activities for self-directed reflection.

These activities aim to:

- build knowledge of explicit instruction and of AERO's guidance in this area
- assist in developing teaching strategies involving explicit instruction
- encourage teachers to embed explicit instruction in their practice.

The content included in this group facilitation guide aligns with standards including:

- **Australian Professional Standards for Teachers Focus Area 6.2** This resource is related to 'Focus Area 6.2 Engage in professional learning and improve practice'.
- **Australian Professional Standards for Principals Professional Practice 2** This resource is related to 'Professional Practice 2 Developing self and others' in the Australian Professional Standards for Principals.



[Watch Explicit instruction in Science](#)

Facilitator preparation

The following is an example checklist to help you prepare for the session.

- ✔ **Review the materials**
 - Read AERO’s [Tried and Tested Explicit instruction practice guide](#).
 - [Watch the explicit instruction in science video](#). Note down any key points that would be valuable for your team and any aspects that need clarification.

 - ✔ **Plan the session**
 - Make sure to give your team sufficient notice about the session so they have time to do the pre-work.
 - Consider how the session can specifically assist your school and your students.
 - Think about what you want participants to be able to do as a result of this session. For instance, be able to identify opportunities for breaking down content, or sequence a commonly taught concept based on explicit instruction principles.

 - ✔ **Consider how change will be promoted in your school**
 - How might teachers of different age groups discuss and decide on ways of breaking down content?
 - How can we ensure chunking is approached consistently between teachers?

 - ✔ **Prepare to facilitate**
 - Read through this resource and highlight the key elements and the questions you plan to ask.
 - ‘Road-test’ the session with one of your colleagues to clarify any aspects of explicit instruction that you are unsure about and to make sure you are confident with each step.
-

Attendee preparation

The following is an example checklist of pre-session work to set participants before they attend.

- ✔ Read AERO’s [Tried and Tested Explicit instruction practice guide](#).
- ✔ Identify a lesson in which you have broken complex skills or knowledge into smaller instructional tasks, and how you planned and taught that sequence of learning.

Asking participants to identify one aspect they would like to learn more about will help you to focus the efforts of the session. Is the session going to primarily discuss explicit instruction as a concept? Will it focus more on how to break down and chunk complex skills and content? Will it focus on how to sequence content? Or perhaps how the teacher might gather the evidence required to know whether the students have mastered a concept or idea?

Explicit instruction session agenda

The following table outlines a possible agenda for a 45 minute group session.

| Timing | Agenda item | Notes |
|---------|---|--|
| 5 mins | Welcome and Acknowledgement of Country | |
| 5 mins | <p>Review key aspects of AERO’s Explicit instruction Tried and Tested guide with a focus on breaking down content</p> <ul style="list-style-type: none"> • Learning should be broken into small, manageable tasks to reduce cognitive overload. • Sequencing is important - the tasks need to build on students’ existing knowledge and represent a suitable level of challenge. • Assess student mastery as you go to make sure foundational skills and knowledge has been mastered before trying to build upon it in later parts of the sequence. | <p>The purpose of this section is to revise elements of the Tried and Tested guides and to emphasise the key points of learning for the team before watching the video.</p> |
| 10 mins | <p>Think about your own teaching practice</p> <ul style="list-style-type: none"> • How do you use explicit instruction in your practice now? <p>Focus on strengths</p> <ul style="list-style-type: none"> • What do you think we do well? • What aspects of explicit instruction are you not so sure about? • Are there parts of it that you use less in your current instruction? <p>Think, pair, share</p> | |
| 5 mins | Explicit instruction in science video viewing | <p>You may wish to pause at certain points of the video to reiterate a point or idea.</p> |
| 15 mins | <p>Video consideration</p> <ul style="list-style-type: none"> • What is something that you learnt from watching this teacher discuss breaking ideas into manageable chunks? • Was there anything in the video that you found surprising? • How important do you think planning and preparing this chunking in advance is? • How can we check that students have understood each of the elements you are teaching prior to moving on? | <p>This is an opportunity to discuss some key questions from the video. Encourage your team to be specific about teaching strategies rather than talking generally about explicit instruction.</p> <p>This final question is key for the team. One common question people have is about the sizes of the chunks. As a general rule, it is better to err on the side of the smaller chunks than the larger. Smaller chunks can be rapidly checked at the end of the sequence and, if they have been mastered, then the class can move on quickly. This is more effective than having larger chunks and then finding that some aspect of the content to be taught is proving more difficult than expected!</p> |

| Timing | Agenda item | Notes |
|--------|---|-------|
| 5 mins | <p>Feedback</p> <ul style="list-style-type: none"> • What additional support would help you to break down and sequence instructional tasks? | |

Post-session review

This could be in the form of another meeting, online session, peer coaching session or some other format agreed by the group.

- Reconvene the team after several weeks to review key aspects of explicit instruction (with a focus on breaking down content) and to share experiences. Questions to ask could include:
 - What changes to practice have been relatively simple?
 - What parts have been challenging for you?
 - How can the school assist you to implement explicit instruction in your classroom?

Meeting reflection

It is important for you to reflect on the session and the progress of your team. The following questions can help you think about the outcomes and next steps for improving the quality and consistency of explicit instruction practice.

- Were there differences in expertise between members of the group?
- Are there members of the team who you felt left the meeting still a little unsure of what effective practice looks like? What could you do to follow up and provide support?
- What are the aspects of breaking down content that require further learning?
- What parts of the session worked well for the group?
- What aspects were less successful?