Scaffolding (we do, you do)

Overview

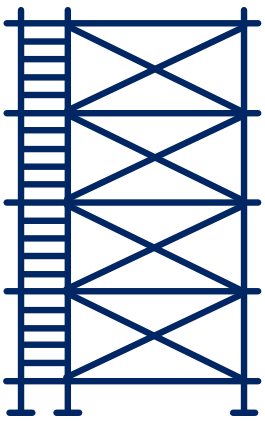
Gradual release of responsibility is sometimes called 'I do, we do, you do' or 'modelled, guided, independent practice'. It is a structured approach that gradually shifts responsibility from the teacher to the students and is informed by checks for understanding. It aims to scaffold learning by providing explicit instruction and guided practice before encouraging students to work independently.

Scaffolding is a universal technique that is used and removed throughout the gradual release of responsibility depending on the strengths and needs of the student. It is any assistance designed to help students complete a new task they are not yet able to achieve on their own (Archer and Hughes 2011). Providing this support can manage cognitive load because it allows students to focus their attention on the new knowledge or skill, rather than the process of completing the task (AERO 2024).

Like the scaffolding used when constructing a building, a lot of scaffolding is used when construction begins. As the building begins to take shape, the scaffolding is gradually removed (or 'faded') until the building is standing on its own.

In the case of students with disability, scaffolding may need to remain for some time. The aim is not to remove the scaffolding, but to provide enough modelling and guided support so that student becomes confident in completing the task on their own.

Scaffolding is not just used to simplify tasks but also to provide a high level of support for students to undertake more complex, high-level tasks. It can include prompts, information organisers, examples and non-examples to demonstrate the process and goal of a task. Scaffolds help reduce misconceptions and gaps in students' learning (Perry et al., 2021). Knowing when to use scaffolding and when to begin removing it is critical to teachers' effective use of it (AITSL, 2023).



Key considerations

- Scaffolding manages cognitive load for students as they acquire, retain, consolidate and apply their learning.
- Scaffolding enables students to engage with tasks that offer high challenge by providing high support initially.
- Scaffolded support is faded over time as teachers check if students have gained proficiency.
- The frequency, intensity and duration of scaffolding can be adapted to support the needs of individual students.
- Examples provide guidance on key steps within a process or task. Non-examples are an effective way of clarifying common errors and misconceptions.
- Worked examples are tangible resources for students to use and refer to throughout the 'we do' and 'you do' phases, not just at the beginning.
- Referring back to a scaffold across a unit of learning supports the retention and consolidation of key information in students' long-term memory (AERO 2023).

> 'The process of... providing scaffolds has been called a cognitive apprenticeship. Students learn strategies and content during this apprenticeship that enable them to become competent readers, writers and problem solvers'.
>
> **(Rosenshine 2012)**

Gradual release of responsibility resources

https://edu.nsw.link/explicit-teaching-gradual-release-of-responsibility

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Classroom application

Scaffolding writing

Students are learning to create written texts for persuasive purposes. Before moving to writing a whole text, their teacher introduces a structure for writing an effective persuasive paragraph. The school has agreed to use a common paragraph writing structure. Over the learning sequence, the gradual release of responsibility occurs as:

- the teacher models the paragraph using the agreed structure, then co-creates some examples with the class.
- the teacher adds prompts for additional descriptive and technical language, building the students' persuasive writing.
- over time, regular whole-class checks for understanding show that most students are able to elaborate their persuasive points without referring to the paragraph structure.
- several students require additional support and they continue referring back to the structure as needed.
- the scaffolding is faded as students build proficiency when moving into the 'you do' phase. (Some students may need to refer to the structure for an extended period).

Sentence starters and word banks in science

Sentence scaffolds (sentence frames, stems or starters) can
scaffold thinking and writing when making a prediction in science (Hochman et al. 2023). For example, students are learning about photosynthesis:

- the teacher uses an 'if, then, because' sentence frame and think-alouds to model creating a sentence showing cause and effect – 'If a plant is placed in a dark cupboard, then it will stop growing because it needs light for photosynthesis.'
- the teacher can then add a word bank of conjunctions that can be used instead of 'then' and 'because' to clarify relationships, including due to, as a result of, therefore, thus this supports teaching of skills in answering questions requiring an explanation.
- as students become more proficient and move into the 'you do' phase, the scaffold is faded before being removed.

Process prompts

Process prompts are prepared prior to the lesson and list the steps involved in completing tasks or solving problems (Sweller et al. 2019). Students use the process prompts as a guide for carrying out a task. For each step of the task, the 'why' is explained and suggestions are provided as to how to complete the task. For example, 'when doing A, consider X, and Y'. Prompts support and guide students in their thinking about specific things to focus on. For example, process prompts can be used during the 'we do' phase to scaffold scientific method in science:

1. What question do you want to explore? – Guide students to use their observations to develop a question that directly addresses the problem or what they want to investigate.
2. What do you predict will happen? – Help students design a procedure that tests their predictions or hypothesis.
3. How will you design the experiment? – Guide students in referring to experiment design processes, considering the types of data they will need to collect.
4. How will you carry out the experiment? – Help students to follow the steps for the experiment and record the data accurately.
5. Does your data support your hypothesis? – Encourage students to evaluate their experiment's design and process before concluding based on the results.

As students develop proficiency, the level of detail and guidance information on a process prompt may be faded, and eventually removed entirely, as students become more skilled. Teachers should provide support throughout the process, if needed (AERO, 2024).

Scaffolding is a universal technique where all students can benefit in their learning. It is important to remember for some students scaffolds may never be removed, whereas others may move into to 'you do' phase quickly.

Universal

A teacher may show all students how to write a science report using a writing scaffold and using a gradual release of responsibility approach.

Differentiation

A group of students may be given additional 'we do' lessons and be explicitly taught to use the scaffold for different science experiments, before attempting with a peer or on their own.

Personalised adjustments

A few students may need the writing scaffold sections further broken down, or the addition of visual or auditory prompts when they use the writing scaffold at independent 'You do'. 'You do' may also be considered 'I do',
if teachers prefer to introduce the phases from the learner's perspective.

More resources

AERO (2023) – How students learn best

https://www.edresearch.edu.au/sites/default/files/2023-11/how-students-learn-best-aa_0.pdf

AITSL (2023) – Addendum: Accreditation of initial teacher education programs in Australia: Standards and Procedures

https://www.aitsl.edu.au/docs/default-source/national-policy-framework/addendum-to-accreditation-standards-and-procedures.pdf

Clines and continuums for vocabulary on the DLS

https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Browser?clearCache=def2a32e-b0d-bbcb-7f74-1412df8722e5

Cognitive science in the classroom: Evidence and practice review

https://educationendowmentfoundation.org.uk/education-evidence/evidence-reviews/cognitive-science-approaches-in-the-classroom

Example Writing Scaffolds on DLS

https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/625?clearCache=63b4d7fd-72b6-fca2-df7f-24f61dc3f4dc

Inclusive Practice Hub

https://education.nsw.gov.au/inside-the-department/directory-a-z/inclusive-practice/search-results?q=scaffolding&adjustments=adjustment-617

Multicultural education – Planning for teaching

https://education.nsw.gov.au/teaching-and-learning/multicultural-education/english-as-an-additional-language-or-dialect/teaching-and-learning/planning-for-teaching

Principles of instruction: Research-based strategies that all teachers should know

https://www.aft.org/periodical/americaneducator/spring-2012/principles-instruction

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Berkowitz S (1986) Effects of instruction in text organization on sixth-grade students' memory for expository reading. *Reading Research Quarterly*, 161-178.

Perry T, Lea R, Jørgensen C, Cordingley P, Shapiro K, Youdell D, Harrington J, Fancourt A, Crisp P, Gamble N and Pomareda C (2021) Cognitive science in the classroom: Evidence and practice review. Education Endowment Foundation.

Hochman J, Wexler N and Maloney K (2023) *The Writing Revolution 2.0 A Guide to Advancing Thinking Through Writing in All Subjects and Grades.* Jossy-Bass.

Rosenshine B (2012) Principles of instruction: Research-based strategies that all teachers should know. *American Educator*, 36(1), 12–19.

Sweller J and Van Merrienboer J and Paas F (2019) Cognitive Architecture and Instructional Design: 20 Years Later. Educational *Psychology Review*, 31. 261-292. 10.1007/s10648-019-09465-5.