

Framework to scaffold pupils' use of metacognitive strategies

This framework offers verbal, visual, and written scaffolds to promote pupils' increasingly independent use of metacognitive strategies over time. It supports educators in using the principle of 'least help first'; prompting, clueing, modelling, or correcting only as necessary, to guide pupils toward self-scaffolding.



Read more

Metacognition and Self-regulated Learning guidance report

Greater pupil independence

Definition

Self-scaffolding

The highest level of independence. Adults give pupils time for processing and thinking. Pupils plan their approach to a task; solve-problems; and review their approach.

Prompting

Adults provide prompts when pupils are unable to self-scaffold. Prompts encourage pupils to draw on their own knowledge but refrain from specifying a strategy.

Clueing

Pupils may know helpful strategies (e.g., planning, or recalling prior knowledge) but struggle to use them. Adults use question-based clues to help pupils move forward.

Modelling

Prompts and clues can be ineffective when pupils encounter a task that requires a new skill or strategy. In cases such as this, adults can model while pupils actively watch and listen.

Correcting

Adults give answers and pupils are only required to do a little independent thinking. It can be useful at times but adults should follow the principle of providing least help first to avoid pupils becoming over-reliant on support.

Visual scaffolds

Activate prior knowledge

Pupils independently create and use their own visual reminders to aid their learning.

Example: mind maps, symbols or codes.

Summarisation

Encourage pupils to summarise their knowledge of concepts or tasks, reflecting on their understanding and identifying gaps.

Example: graphic organisers such as mind maps and storyboards.

Activate prior knowledge

Use visual reminders of strategies which have previously helped – or hindered – learning.

Example: gestures, images or diagrams of key strategies for planning, monitoring and evaluation.

Worked examples

Provide visual demonstrations of approaches for planning, monitoring or evaluating learning for pupils to use in their own work.

Example: live modelling and videos.

Worked examples

Provide visual representations of alternative approaches to learning, without pupils correcting this for themselves.

Example: live models to demonstrate more appropriate strategies.

Verbal scaffolds

Self-questioning

Pupils use self-questioning to activate prior knowledge and plan their approach.

Example: "What do I already know?", "What steps will I need to take?" and "How will I monitor my progress?"

Self-explanation

Prompt pupils to explain their thinking and share their rationale for chosen approaches.

Example: asking probing questions (e.g., "How..." and "Why...") to encourage pupils to extend and elaborate upon their first answers.

Activate prior knowledge

Give verbal reminders of strategies which have previously helped, or hindered, learning.

Example: questions or hints to provide clues (e.g., "I remember that when you did this before, you followed the writing frame...")

Thinking aloud

Model planning, monitoring, and evaluating by verbalising thinking.

Example: step-by-step talk for a task; talking through deliberate mistakes and corrections.

Goal setting

Correct errors or misconceptions in pupils' understanding of priorities for tasks, outcomes, or learning processes.

Example: "I see a mistake here, this task aims to... so your goal should be..."

Written scaffolds

Structured reflection

Pupils independently reflect on learning outcomes, processes used, and future improvements.

Example: pupils select their own reflective tools (e.g., journals and reflective comments).

Think aloud protocols

Provide written prompts to encourage pupils to verbalise their thinking.

Example: sentence starters to support pupils to narrate their thinking.

Summarisation

Teach mnemonics to help pupils recall strategies for components of specific tasks.

Example: IPEELL (Introductory paragraph, Points, Examples and elaboration, End, Links, and Language)

Worked examples

Provide written examples of tasks, enabling pupils to examine strategies used, identifying advantages and challenges.

Example: written texts, question responses, and notes made during problem solving.

Exam wrappers

Provide written feedback on pupils' evaluation of self, tasks, and strategies.

Example: offering alternative priorities and strategies for improvement.