

INSTRUCTIONAL STRATEGIES GUIDE

WORKED EXAMPLES



GRADES + SUBJECTS All

DESCRIPTION

Worked examples are step-by-step demonstrations with explanations that model how to complete a task or solve a problem. This instructional strategy allows students to study an exemplary solution that is similar to the types of problems or tasks they will complete on their own. Worked examples are typically used in STEM subjects (Science, Technology, Engineering, and Math), but they can also be used in history and English Language Arts. Worked examples are most effective when they are presented to students at the time new material is introduced; however, they can be used throughout the learning process. Teachers can create a worked example in real time by demonstrating how to perform a task step-by-step while explaining the rationale (similar to a think-aloud), or worked examples can be presented as completed, worked out solutions for students to examine.

WHEN TO USE IT

As a learning strategy, use worked examples when you want students to:

- master a procedural skill and understand the goal and rationale for each step in the process
- develop a clear understanding of a process so that they are able to apply it to similar tasks
- recognize and address errors and misconceptions in their thinking
- become independent with a task more efficiently
- practice self-explanation

PROS

- Help develop a clearer understanding of how a problem or task is completed by presenting an exemplary model of the solution.
- Effective for students who have limited prior knowledge of a concept or topic

CONS

- Students may rely too heavily on copying the worked example rather than applying what they learned to a new task.
- May hinder progress for advanced students whose time would be better spent completing tasks without the support to reach mastery

CULTURALLY RESPONSIVE APPLICATION

Worked examples can build confidence and understanding for diverse learners who benefit from a scaffolded approach and deliberate communication. Worked examples are culturally responsible when teachers demonstrate and explain how to solve a problem using language geared toward their students to enhance clarity. When teachers provide examples and explanations that are relevant and specific, worked examples can help all learners develop understanding and move toward independence. When students create worked examples and apply self-explanation in the process, they have an opportunity to demonstrate their learning using their own words, which helps them make stronger connections and increases their ability to transfer their understanding to new tasks.

ESTIMATED DURATION IN CLASS <10 minutes, 11-20 minutes

SKILLS

Comprehension, Writing, Editing, Revising, Publishing, Communication, Computation, Problem solving, Critical thinking, Analyzing, Computational thinking, Synthesis

BLOOM'S LEVEL(S)

Understanding, Applying, Analyzing, Evaluating, Creating, Clarify, Explain, Determine, Solve, Connect, Deduce, Illustrate, Organize, Deconstruct, Validate