

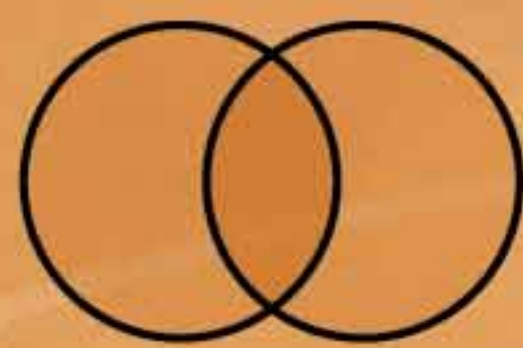
# Which of these Classroom Instruction *that works*\* strategies have you used today?

## Strategy Category

## What you can do in your classroom

## Key idea

### Identifying similarities & differences



- Ask students to **compare**, identifying similarities & differences among concepts.
- Help students **classify**, grouping things that are alike into categories.
- Encourage students to create **metaphors**, identifying a basic pattern in one item that's reflected in another item.
- Ask students to create **analogies**, finding relationships between pairs of concepts (e.g., "A is to B as C is to D").

Identifying similarities and differences may well be the "core" of all learning. Using this strategy can deepen your students' understanding and enhance their ability to apply new knowledge.

### Summarizing & note taking



- Teach students the **rules** to summarizing, and use "**summary frames**" (e.g., narrative, definition, or problem-solution) to highlight important text elements.
- Give students **teacher-prepared notes** and explicitly teach them a **variety of note taking formats** (e.g., combination notes, outlines, webs, & summaries).

Helping students sort out important information and restate it in a concise form improves their comprehension. Although verbatim note taking is not effective, the more notes students take, the higher their achievement.

### Reinforcing effort & providing recognition



- Explicitly teach students the **importance of effort**.
- Stop frequently at students' desks to "**pause, prompt, & praise.**"
- Use **stickers** and other concrete symbols of recognition.

Because not all students realize the importance of effort, one of the most important things you can do is help them understand how more effort creates better results.

### Homework & practice



- Give students **time to practice**, review, and apply knowledge to become efficient in a skill or process.
- Establish a **homework policy** that includes consequences for not completing it and clarifies acceptable types of parent involvement.
- Design homework assignments that have a **clear purpose and outcome** and focus on specific elements, skills, or processes.

Homework should not be assigned for its own sake or as a substitute for classroom learning. Rather, it's a way to extend learning and help students master a skill or deepen conceptual understanding of what you teach them in class.

### Nonlinguistic representation



- Use **pictures or pictographs** to represent students' new knowledge.
- Help students generate **mental pictures** of what they're learning.
- Use **physical models** (e.g., "manipulatives") to convey concepts.
- Engage students in **kinesthetic activities** (i.e., activities with physical motion) to help them understand what they're learning.

Psychologists believe we store knowledge in two forms: linguistic and imagery. The more students process information using both forms, the better they'll understand and recall what they've learned.

### Cooperative learning



- Place students in **small groups** (3-4 members) with well-structured cooperative learning activities.
- **Vary grouping patterns** so students aren't always in the same group.
- **Avoid ability grouping** (i.e., placing students of like ability in the same group) as it impedes the progress of low-ability students.

Cooperative learning is more effective than individual competition or learning. However, while in groups, students should be interdependent yet accountable for individual contributions.

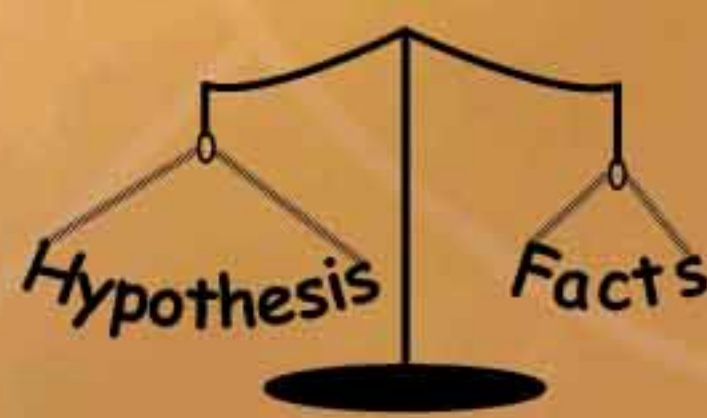
### Setting objectives & providing feedback



- Help students set learning goals that are **specific and personal** (e.g., I want to know why Ice Age mammals were so large).
- Provide students with feedback that's **corrective** in nature by explaining why an answer is incorrect.
- Use **criterion-referenced** feedback to inform students of their progress toward learning specific knowledge, not simply how they compare with classmates.

Telling students their answers are incorrect without explaining why can adversely affect learning. But giving feedback that's timely, specific, and "corrective" is one of the most powerful strategies you can use.

### Generating & testing hypotheses



- Encourage your students to generate hypotheses by using both **deductive** (predicting from a general rule) and **inductive** (developing rules from observations) reasoning.
- Ask students to **clearly explain their hypotheses** and conclusions.
- Use a variety of structured tasks (e.g., **systems analysis, problem solving, historical investigation, invention**) to develop students' higher-level thinking skills.

Although commonly regarded as the purview of science classrooms, generating and testing hypotheses is a basic cognitive skill that helps students apply knowledge and develop higher order thinking skills in many subject areas.

### Cues, questions, & advance organizers



- As you begin a unit or lesson, use **cues** (i.e., hints of what students are about to learn) to help students retrieve, use, and organize **what they already know** about a topic.
- Instead of asking students to recall information, ask them **analytic questions** that encourage higher level thinking skills.
- **Wait** briefly before accepting responses from students to increase the depth of their answers.
- Use **advance organizers** (e.g., stories, videos, skimming reading passages, graphics) to prepare students to learn new content, especially when the content is poorly organized (e.g., a field trip).

Helping students connect what they are about to learn with what they already know accelerates learning. Also, because cueing and questioning accounts for as much as 80 percent of what teachers do in classrooms, asking the right kinds of questions can help elicit higher order thinking and deeper level answers from students.

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