

POWERFUL INSTRUCTIONAL STRATEGIES

Based on the work of Robert Marzano in *Classroom Instruction That Works: Research-based Strategies for Increasing Student Achievement*.

Instructional Strategy Category	Average effect size	Definition
1. Identifying similarities and differences	1.61	Enhance students' understanding of and ability to use knowledge by engaging them in mental processes that involve identifying ways items are alike and different.
2. Summarizing and note taking	1.00	Enhance students' ability to synthesize information and organize it in a way that captures the main idea and supporting details.
3. Reinforcing effort and providing recognition	.80	Enhance students' understanding of the relationship between effort and achievement by addressing students' attitudes and beliefs about learning. Provide students with rewards or praise for their accomplishments related to the attainment of the goal.
4. Homework and practice	.77	Extend the learning opportunities for students to practice, review and apply knowledge. Enhance students' ability to reach the expected level of proficiency for a skill or process.
5. Nonlinguistic representation	.75	Enhance students' ability to represent and elaborate on knowledge using mental images.
6. Cooperative learning	.73	Provide students with opportunities to interact with each other in groups in ways that enhance their learning.
7. Setting objectives and providing feedback	.61	Provide students a direction for learning and information about how well they are performing relative to a particular learning goal so that they can improve their performance.
8. Generating and testing hypotheses	.61	Enhance students understanding of and ability to use knowledge by engaging them in mental processes that involve making and testing hypotheses.
9. Cues, questions, and advance organizers	.59	Enhance students' ability to retrieve, use and organize what they already know about a topic.

The Four Planning Questions and Corresponding Instructional Strategies:

1. What will students learn?
2. Which strategies will provide evidence of student learning?
3. Which strategies will help students acquire and integrate learning?
4. Which strategies will help students practice, review and apply learning?

Adapted from: Pitler, Hubbell, et al., eds. *Using Technology with Classroom Instruction that Works*. Denver: MCREL, 2007: 8-10.