

13 Essential Instructional Strategies to Achieve Rigor

Identifying Critical Content	Teachers identify which information or skills are critical to mastery of the standards on which they are working. The teacher highlights this crucial information throughout the lesson and across the unit, to enable students to focus on key points, helping them build a logical foundation on which to support simpler to more complex content.
Previewing new content	Previewing allows for students to access prior knowledge and analyze new content. It may be used in any level of lesson to connect new content to previously learned information.
Organizing students to interact with content	Students are organized into appropriate groups that facilitate their interaction with content. Shared experience and cooperative learning are essential building blocks of the teaching learning experience (Marzano & Brown 2009). Whether it's learning introductory content or knowledge utilization, students are provided help regarding how to collaborate in a manner that will help them interact with content and ways they might focus on cognitive or conative skills.
Helping students process content	This strategy systematically engages student groups in processing and generating conclusions about content. Note: For the student-centered classroom, the focus shifts from teacher to student. The teacher is "helping students process content." Inherent in this phrase is that students are expected to work with, summarize, and elaborate on content, not just listen as the teacher discusses or lectures.
Helping students elaborate on content	Helping students elaborate requires students to make inferences about the information addressed in class. Equally important, students are asked to provide evidence and support for their inferences. This strategy has great purpose in any lesson
Helping students record and represent knowledge	This strategy allows students to create their own representations of the content and processes with which they are interacting. Rigorous standards highlight the need to expand the types of representations elicited from students to include mental models, mathematical models, and other more abstract representations of content.
Managing response rates with tiered questioning techniques	The teacher purposefully asks questions with ascending cognitive complexity in order to support students in deepening their thinking about content. In addition to ensuring that all students respond, the teacher ensures that student responses are backed up by evidence.
Reviewing content	Reviewing content engages students in a brief review that highlights the cumulative nature of the content. For rigorous standards, the teacher also reviews activities to ensure that students are aware of the "big picture" regarding the content.
Helping students practice skills, strategies, and processes	With this strategy, students perform the skill, strategy, or process with increased competence and confidence. The shift in instructional practice to demonstrate rigorous standards also requires students to both develop fluency and alternative ways of executing procedures.
Helping students examine similarities and differences	This strategy engages students in activities such as comparing, classifying, and creating analogies and metaphors that address the "big ideas" and "conclusions" as well as specific details. The strategy can be useful not only when students are deepening their thinking but throughout the learning cycle. There are times when examining similarities and differences is appropriate for previewing, but it is also a highly effective strategy when students are asked to analyze at a deeper level, or to utilize their knowledge to solve a real-world problem.
Helping students examine their reasoning	With this strategy, students produce and defend claims by examining their own reasoning or the logic of presented information, processes, and procedures. The shift to rigorous standards requires the analysis of information for errors or fallacies in content or in students' own reasoning, as well as the examination and critique of the overall logic of arguments.
Helping students revise knowledge	Students revise previous knowledge by correcting errors and misconceptions as well as adding new information. Additionally, this instructional strategy involves viewing knowledge from different perspectives and identifying alternative ways of executing procedures. This strategy allows students to build a sense of themselves as active learners as they broaden and deepen their knowledge throughout a unit of instruction.
Helping students engage in cognitively complex tasks	Engaging in cognitively complex tasks is not merely an end-of-unit or culminating activity. Students must begin to "live" in a land of cognitive complexity. Students who are presented with a complex knowledge utilization task at the end of a unit, for instance, with no questions, tasks or activities built-in along the way that required them to use that level of thinking, will have much more difficulty making meaning of the task. Effective teachers incorporate "short visits" throughout the unit to help build student capacity for complex tasks.

Table received from *Teaching for Rigor: A Call for a Critical Instructional Shift* by Robert J. Marzano and Michael D. Toth.
Retrieved from: <http://www.marzano-center.com/essentials/>

