Strategies & Tools for Elevating Rigor in Instruction and Learning

What follows are strategies and tools, with brief descriptions, that are effective in incorporating higher levels of rigor into instruction and learning. This is a starting point and by no means a complete list. In your own ongoing commitment to shoring up your coaching and instructional skills, you will surely come across other strategies and tools you can use to improve rigor. Use your judgment.

Note that a rigor strategy or tool could also support relevance and engagement—and vice versa. While it happens, it is rare that a strategy or tool will strictly support only rigor, only relevance, or only engagement. It is typical that a strategy or tool will be capable of driving the largest impact in one area (e.g., rigor) and drive smaller impacts in others (e.g., relevance and/or engagement).

When I coach for rigor, I will often suggest to teachers that they apply these strategies/tools, as they are strong drivers of rigor. Depending on where a teacher is on the GRC spectrum will inform how explicit I am in how to use a strategy/tool expertly. For example, if the teacher would benefit from instructive coaching, I will outline in detail how to use the strategy/tool. If he is at the point of self-directed coaching, I will leave that learning to him.

Academic Vocabulary Cards: To promote academic discussion, the teacher provides students with an index list of academic vocabulary words that correlate with the topic they will be discussing in groups. The teacher places the index card in the middle of each of the groups. As groups engage in discussion, they are expected to accurately use as many vocabulary words on the index card as they can. As the teacher circulates the room to listen to all group conversations, she makes note of the terms she hears students use correctly.

Agree/Disagree: To promote academic discussion, the teacher asks all students if they agree or disagree with a student when an answer is given to the teacher's question. Students can give a thumbs up if they agree or a thumbs down if they disagree. To start a dialogue, the teacher follows-up with, "Why do you disagree/agree?" and "What evidence can you provide to support your answer?"

I Know, You Know: This strategy allows students to recall what they know about a topic and build on that knowledge through small group academic conversation. The teacher gives students a text and the I Know, You Know graphic organizer, which you can find at

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leadered.com/coachingredefined. Students are asked to skim the text. They silently record what they already know about the text's topic in the numbered rows on the graphic organizer. Next, they have a conversation with group members to discuss what each knows at this point. Then, students silently read the text in full, annotating newly learned information in the text. The group has a conversation about the information they learned from the reading, and each person notes on her graphic organizer what her peers shared. Finally, each person records any questions that come up while discussing the text.

Improve This!: This strategy encourages students to think through different ways to solve a problem. The teacher gives students a text, object, or complete answer to a problem and asks students to enhance or improve it in a specific way. For example, the teacher could give students a published story and ask students to improve the dialogue in the story to show more of the characters' emotions. Or a teacher could give students a car that was designed during a science lab and ask students to make it run faster. Another teacher might give students an answer to a math problem and ask them to explain the steps that went into clearly and specifically.

Jigsaw: This strategy, which has a 1.2 effect size, provides students a structure to assist with meaningful academic conversations based on material they've read. When working in small groups, students are assigned roles. Students will divide a text, read their assigned sections of the text, and make note of any important information on the jigsaw graphic organizer. Once everyone in the group has finished reading his or her section, all group members will use their roles to take turns sharing important information from what they read. Finally, the group collaboratively writes a summary of the text and records it on the graphic organizer. You can see an example of the Jigsaw graphic organizer at leadered.com/coachingredefined.

Not Quite, But Close: To promote the idea of growth mindset, a teacher selects a student answer to share that isn't one hundred percent correct but has many correct qualities. The teacher first asks and gains permission from the student to use his work-product, without his name attached. Then the teacher displays the work without the student's name on it. Students engage in a conversation to discuss what is correct about the answer and what could be corrected to make the answer one hundred percent correct. The teacher takes time to praise the student for sharing his work as a learning opportunity for the whole class.

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Rate the Work: A teacher gives students several samples of completed work from their peers and asks students to have an academic discussion about the work samples. Students are expected to ask their peers rigorous questions about the completed work and provide their classmates ideas for improvement. Then, time is given to their classmates to use the feedback to improve their work.

Reciprocal Teaching: This strategy gives roles to team members, typically around the cognitive strategies of predicting, summarizing, questioning, and clarifying. As a group, students read a text and then record their thoughts in a graphic organizer about it based on their role (summarizing it, making a prediction about it, etc.). Group members then take turns sharing what they wrote on the graphic organizer and discussing everyone's contributions. Note that this strategy can also be carried out by individual students. Please go to **leadered.com/coachingredefined** to see the Reciprocal Teaching graphic organizer.

Socratic Smackdown: The Socratic Smackdown uses research to promote academic debate. During this game, which mimics a Socratic Seminar, students are divided into teams. Each team is given time to research a topic related to an essential question. Then all teams participate in an academic debate on the topic. Points are given when students make valid arguments based on evidence, and points are subtracted if students interrupt each other. (The full Socratic Smackdown teaching guide can be found at **www.instituteofplay.org/learning-games**.)

Student Conversation Starters: The teacher provides students with conversation-starter questions to assist them in learning how to have more meaningful and rigorous student-to-student conversations and academic discussions. Please go to **leadered.com/coachingredefined** to see a list of Student Conversation Starters.

Technology Integration: Teachers can integrate technology into instruction to promote rigorous learning. Various interactive learning technologies—such as EDpuzzle, PlayPosit, and Nearpod—help a teacher to embed rigorous questions into PowerPoints, videos, or gifs. Teachers, then, can pause instruction at intentional learning moments to ask rigorous questions, giving students opportunities to think critically about content and teachers opportunities to assess their understanding. Always keep in mind that technology is only as strong as the pedagogy behind it. Take care to consider the levels of rigor in the questions and learning tasks that are incorporated into any tech tools.

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Trade-a-Thought: This activity is meant to help students reflect on their own thoughts, share those thoughts with others, and actively listen to their classmates as they share their thoughts with them. On a graphic organizer, students will write their responses to a prompt given by the teacher. Students in grades K–2 may draw a picture and write a sentence under the picture. They will trade papers with one partner and each will take turns sharing and listening to thoughts. After, the teacher will lead an academic discussion where students explain to the class what their partners shared with them. For students in grades 3 and up, they will write their thoughts as complete sentences. Students will then join groups of three students, where each student will ask the other two to share their thoughts while recording both classmates' responses on their own graphic organizer. After group work is complete, the teacher may choose to lead a whole-class academic discussion where students are asked to share and reflect on the thoughts they gathered from their classmates. Go to **leadered.com/coachingredefined** for an example of the Trade a Thought graphic organizer for students in grades K–2 and for students in grades 3 and up.