



High Impact Ratio Techniques: Use these ratio techniques to put the cognitive lifting on students.

Technique	Definition	Effect
Prompted Think Time	Giving students time to individually process material or questions before asking for answers or explanations.	<ul style="list-style-type: none">• Allows for processing time• Engages all students• Students give more well thought-out and articulate answers
Think/Pair/Share	Giving students individual think time, time to discuss with a partner, and then a chance to share with the whole group.	<ul style="list-style-type: none">• Allows for individual processing time• Partner share allows sharing of ideas and a chance to articulate an answer out-loud before sharing whole group• Gives the teacher a chance to hear students thoughts before the whole class discussion• Gives the teacher a chance to work with individual students
Aggressive Monitoring / Planting Seeds	Listening to students' conversations to get a preview of their thinking and/or working with small groups of students to help them shape and articulate their thinking.	<ul style="list-style-type: none">• Gives the teacher a temperature check of student understanding• Allows the teacher to safely cold call students• Gives the teacher a chance to work with lower level students and to help them participate
Poker Face	Seeking out other thoughts, ideas, or methods after the first answer is given.	<ul style="list-style-type: none">• Honors multiple ideas or approaches• Gives more students an opportunity to share their thinking
Show Call	Using displayed student work to drive the conversation and questioning.	<ul style="list-style-type: none">• Students become more intentional and organized with their work• Implies that student work is more important than the teachers' work
Prompted Habits of Discussion	Naming the habits of discussion that students are expected to use before beginning the conversation.	<ul style="list-style-type: none">• Let's students know exactly what is expected of them in the conversation
Purposeful Pairings	Strategically pairing students who can work well together and/or help teach each other.	<ul style="list-style-type: none">• Leads to more productive turn and talks• Can be an added support for lower and high level students



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Generalization	Testing the limits of new concepts by changing the situation slightly and/or asking students to apply a concept in a novel setting	<ul style="list-style-type: none">• Builds the habit of generalization and testing theories• Builds perseverance
Strategic Positioning	Positioning oneself off to the side of the room or among the students.	<ul style="list-style-type: none">• Takes the focus off of the teacher as the 'leader' of the group
Inclusive Language	Using inclusive language such as "we," and "our," when referring to the work and tasks that the class is completing.	<ul style="list-style-type: none">• Implies that the students are as or more important than the teacher in the problem solving process
Complete Sentences	Ensuring that students are using complete and mathematically correct sentences.	<ul style="list-style-type: none">• Helps students practice mathematical explanations
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