

10 ways to encourage Meta- cognition in the classroom

1. Predicting outcomes - Most often seen in mathematics or science classes, predicting helps students understand what kinds of information they might need to successfully solve a problem. Prediction also helps students compare their initial thoughts with the final outcomes of a problem or experiment.
2. Evaluating work - Students review their work and determine where the strengths and weaknesses are in their work and their thinking.
3. Questioning by the teacher - The teacher asks students as they work. “What are you doing now? Why are you doing it? How does it help you?”
4. Self-assessing -Students reflect on their learning and determine how well they have learned something or how their skills have developed.
5. Self-questioning—Commonly taught for use in reading tasks, but also useful in writing and problem-solving of all kinds, students use questions to check their own knowledge as they are learning. When students learn to ask questions (of themselves or of others) while they work, they intentionally direct their thinking and clarify the areas where they need assistance.
6. Selecting strategies—Students decide which strategies are useful for a given task. Strategy selection may depend on understanding one’s own learning style and strengths as well as understanding the features of a problem.
7. Using directed or selective thinking—Students choose consciously to follow a specific line of thinking or structured approach in order to find an answer.
8. Using discourse—Students discuss ideas with each other and their teacher. This process makes thinking more concrete and helps students learn to ask questions, identify gaps in their own knowledge, and learn from others’ thoughts and ideas.
9. Critiquing—Students provide feedback to other students about their work in a constructive way. This process allows students giving feedback to practice verbalizing their own thinking and students receiving feedback to improve their own thinking process and performance.
10. Revising—Students return to their work after receiving feedback. This opportunity allows students to update their thinking and check their use of learning strategies.

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