

Components of Metacognition

Knowledge about Cognition

Declarative Knowledge:

- knowledge about one's skills, intellectual resources, and abilities as a learner
- the factual knowledge the learner needs before being able to process or use critical thinking related to the topic
- students can obtain declarative knowledge through presentations, demonstrations, discussions

Procedural Knowledge:

- knowledge about how to implement learning procedures (e.g., strategies)
- requires students know the process as well as when to apply process in various situations
- students can obtain procedural knowledge through discovery, cooperative learning, and problem solving

Conditional Knowledge:

- knowledge about when and why to use learning procedures
- the determination under what circumstances specific processes or skills should transfer
- students can obtain conditional knowledge through simulation

Regulation of Cognition

Planning:

- planning, goal-setting, and allocating resources *prior* to learning

Information Management:

- skills and strategy sequences used to process information more efficiently (e.g., organizing, elaborating, summarizing, selective focusing)

Monitoring:

- assessment of one's learning or strategy use

Debugging:

- strategies to correct comprehension and performance errors

Evaluation:

- analysis of performance and strategy effectiveness after a learning episode