# Components of Metacognition

| Knowledge about Cognition | Regulation of Cognition |
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| **Declarative Knowledge**:<br>• knowledge about one's skills, intellectual resources, and abilities as a learner<br>• the factual knowledge the learner needs before being able to process or use critical thinking related to the topic<br>• students can obtain declarative knowledge through presentations, demonstrations, discussions<br><br>**Procedural Knowledge:**<br>• knowledge about *how* to implement learning procedures (e.g., strategies)<br>• requires students know the process as well as when to apply process in various situations<br>• students can obtain procedural knowledge through discovery, cooperative learning, and problem solving<br><br>**Conditional Knowledge:**<br>• knowledge about *when* and *why* to use learning procedures<br>• the determination under what circumstances specific processes or skills should *transfer*<br>• students can obtain conditional knowledge through simulation | **Planning:**<br>• planning, goal-setting, and allocating resources *prior* to learning<br><br>**Information Management:**<br>• skills and strategy sequences used to process information more efficiently (e.g., organizing, elaborating, summarizing, selective focusing)<br><br>**Monitoring:**<br>• assessment of one's learning or strategy use<br><br>**Debugging:**<br>• strategies to correct comprehension and performance errors<br><br>**Evaluation:**<br>• analysis of performance and strategy effectiveness after a learning episode |