

The Knowledge Dimension

| Major Types and Subtypes | Examples |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A. Factual knowledge: The basic elements students must know to be acquainted with a discipline or solve problems in it | |
| Aa. Knowledge of terminology | Technical vocabulary, musical symbols |
| Ab. Knowledge of specific details and elements | Major natural resources, reliable sources of information |
| B. Conceptual knowledge: The interrelationships among the basic elements within a larger structure that enable them to function together | |
| Ba. Knowledge of classifications and categories | Periods of geological time, forms of business ownership |
| Bb. Knowledge of principles and generalizations | Pythagorean theorem, law of supply and demand |
| Bc. Knowledge of theories, models, and structures | Theory of evolution, structure of Congress |
| C. Procedural knowledge: How to do something; methods of inquiry; and criteria for using skills, algorithms, techniques, and methods | |
| Ca. Knowledge of subject-specific skills and algorithms | Skills used in painting with watercolors, whole-number division algorithm |
| Cb. Knowledge of subject-specific techniques and methods | Interviewing techniques, scientific method |
| Cc. Knowledge of criteria for determining when to use appropriate procedures | Criteria used to determine when to apply a procedure involving Newton's second law, criteria used to judge the feasibility of using a particular method to estimate business costs |
| D. Metacognitive knowledge: Knowledge of cognition in general as well as awareness and knowledge of one's own cognition | |
| Da. Strategic knowledge | Knowledge of outlining as a means of capturing the structure of a unit of subject matter in a textbook, knowledge of the use of heuristics |
| Db. Knowledge about cognitive tasks, including appropriate contextual and conditional knowledge | Knowledge of the types of tests particular teachers administer, knowledge of the cognitive demands of different tasks |
| Dc. Self-knowledge | Knowledge that critiquing essays is a personal strength, whereas writing essays is a personal weakness; awareness of one's own knowledge level |