

4.1 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