

Types of Knowledge

There is a wide variety of qualities and properties attributed to knowledge in the literature like¹⁾:

Various types of knowledge in the literature							
generic knowledge	general knowledge	domain specific knowledge	concrete knowledge	abstract knowledge	formal knowledge	informal knowledge	inert knowledge
declarative knowledge	procedural knowledge	elaborated knowledge	compiled knowledge	structured knowledge	unstructured knowledge	tacit knowledge	ancillary knowledge
strategic knowledge	knowledge acquisition knowledge	situated knowledge	definitional knowledge	concept knowledge	strategic knowledge	supplementary knowledge	metaknowledge

The most basic and commonly used division of knowledge types²⁾ differs between procedural and declarative knowledge:

Type	Definition
1. Declarative knowledge	referring to knowledge about facts and concepts.
2. Procedural knowledge	referring to knowledge about how to accomplish something.

The taxonomy of knowledge types based on Krathwohl's revised Blooms taxonomy extends declarative knowledge to factual and conceptual and adds meta-knowledge³⁾:

Type	Definition	Examples
1. Declarative knowledge	Factual knowledge The knowledge of facts or the basic elements students must know to be acquainted with a discipline or solve problems in it.	Knowledge that a a keyboard is a computer device, that chemical symbol <i>Au</i> represents gold, that this color is called green, that 7 is the symbol for number 7, knowledge of names of three fastest growing trees, knowledge of the definition of the quadratic formula, knowledge that hte capital of Azerbajdan is Baku, knowledge that the U.S. gained independence in 1776.
	Conceptual knowledge Conceptual knowledge reffers to patterns and interrelationships among the basic elements within a larger structure that enable them to function together.	Knowledge of categories (concepts) like cars, dogs or rock music. Knowledge about similarities and patterns in factual knowledge elements, for example forms of business ownership.
3. Procedural knowledge	How to do something, methods of inquiry, and criteria for using skills, algorithms, techniques, and methods.	Whole-number division algorithm , greedy algorithm , Held-Karp algorithm , interviewing techniques , differential equation solving techniques , gaze heuristic , similarity heuristic .

Type	Definition	Examples
4. Metacognitive knowledge	Knowledge of cognition in general as well as awareness and knowledge of one's own cognition ⁴⁾ .	Knowledge of outlining as a means of capturing the structure of a unit subject matter in a textbook, knowledge of the use of heuristics, knowledge of the types of tests particular teachers administer, knowledge of the cognitive demands of different tasks.

1)
T. de Jong and M. G. M. Ferguson-Hessler. Types and qualities of knowledge, Educational Psychologist, vol. 31, no. 2, pp. 105-113, 1996.

2)
Missing reference.

3)
Krathwohl, David R. A Revision of Bloom's Taxonomy: An Overview. Theory into practice 41, no. 4, Autumn 2002.

4)
Pintrich, Paul R. The Role of Metacognitive Knowledge in Learning, Teaching, and Assessing. Theory into Practice 41, no. 4: 219-225, October 2002.

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