

Webb's Depth of Knowledge (DOK)

This particular paradigm is far less known than is Bloom's Taxonomy; however, it is sometimes confused with the latter due to a somewhat similar structure. There are however two significant differences that set them apart: 1) Webb's DOK is a descriptive hierarchy, not a taxonomy, and 2) Webb's DOK focuses on complexity, one aspect of rigor. These may seem like very fuzzy distinctions, however, the descriptions of the four DOK levels that follow will clarify the distinctions. It is important to remember that each of the four Webb's DOK levels reflect progressively increased complexity. Unlike Bloom's Taxonomy, the verb is not the distinguishing factor. Rather, the context of the verb is how one delineates between the different DOK levels, each of which basically describe and show the progression of the rigor of what is being taught and learned. Students reach the next higher DOK level after mastering a lower DOK level.

Literature has shown, and it is becoming more widely recognized, that students exposed to career and technical education (CTE) programs of study tend to perform consistently better on state-based standardized tests such as FCAT. Florida used Webb's DOK paradigm to ensure alignment between assessment items and the Next Generation Sunshine State Standards. Ensuring alignment is, in fact, the primary intent of the Webb's Depth of Knowledge paradigm. Given the connection between assessments and industry expectations, it is easy to see how an awareness of Webb's DOK paradigm can help ensure that CTE program standards reflect a progressively more complex and demanding array of expectations from our students while remaining aligned with industry expectations. This will ensure that our curriculum frameworks will be supportive of Florida's Next Generation Sunshine State Standards and the constructs of No Child Left Behind (NCLB).

DOK Level 1 – Recall: This level applies to items that involve simple knowledge. There is little comprehension involved at this level, no complexity, and no depth. It involves recall, rote response, and only a very basic, surface knowledge of material.

Examples of DOK Level 1 Activities

- Recall elements and details of story, structure, such as sequence of events, character, plot, and setting.
- Conduct basic mathematical calculations.
- Label locations on a map.
- Represent in words or diagrams a scientific concept or relationship.
- Perform routine procedures like measuring length or using punctuation marks correctly.
- Describe the features of a place or people.

DOK Level 2 – Skill/Concept: This level involves students beginning to apply skills and processing concepts involving more comprehension. At this level, students interpret material and make simple decisions about how to approach a problem. They do such things as infer, conclude, compare, summarize, and determine relationships (cause/effect, etc.). The level of complexity is still relatively low.

Examples of DOK Level 2 Activities

- Identify and summarize the major events in a narrative.
- Use context cues to identify the meaning of unfamiliar words.
- Solve routine multiple-step problems.
- Describe the cause/effect of a particular event.
- Identify patterns in events or behavior.
- Formulate a routine problem given data and conditions.
- Organize, represent, and interpret data.

DOK Level 3 – Strategic Thinking: At this level, students begin to analyze, evaluate, reason, and plan. While some of these activities also occur at DOK Level 2, the complexity is much deeper at this level. For example, students may compare/contrast ideas within a single reference at DOK Level 2, but at DOK Level 3, they would be expected to compare/contrast ideas among two or more references. Students also begin to deal with abstractions and open-ended conclusions at this level and are able to support their thinking.

Examples of DOK Level 3 Activities

- Support ideas with details and examples
- Use voice appropriate to the purpose and audience.
- Identify research questions and design investigations for a scientific problem.
- Develop a scientific model for a complex situation.
- Determine the author's purpose and describe how it affects the interpretation of a reading selection.
- Apply a concept in other contexts

DOK Level 4 – Extended Thinking: At this, the highest DOK level, student activities involve much higher-level thought processes and skills, such as activities requiring them to synthesize, hypothesize, evaluate, and analyze material. Their grasp of knowledge is deep. With higher-level thinking being absolutely central, students' interaction with material is in-depth, complete, and purposeful. For example, students might be involved in activities such as writing in-depth, multi-paragraph persuasive essays with thesis statements, evidence, examples, and complex reasoning.

Examples of DOK Level 4 Activities

- Conduct a project that requires specifying a problem, designing and conducting an experiment, analyzing its data, and reporting results/solutions.
- Apply mathematical model to illuminate a problem or solution.
- Analyze and synthesize information from multiple sources.
- Describe and illustrate how common themes are found across texts from different cultures.
- Design a mathematical model to inform and solve a practical or abstract situation.