

Webb's Depth of Knowledge

Connecting DOK with
concept-based teaching
and learning

Fall 2014

Making Sense through Worthwhile Tasks

What are our students really being asked to do? Given these four directions that might be given to students, determine/discuss what students are really being asked to do.

Brainstorm all the ways Carrie could react to the bully.

Draw a representation of the action in this addition problem

Tell why you think the Nazis were allowed to behave as they did

Report the events in the story as a newspaper reporter would

Making Sense through Worthwhile Tasks

While these may be engaging tasks,
they are each DOK level 1 thinking!

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ways Carrie could
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Cognitive Demand

What is it?

- The kind and level of thinking required of students to successfully engage with and solve a task
- What in which students interact with content

Looking into 1 of the examples:

Isn't brainstorming high level? If it is simply generating a list, without evaluation of items according to their merit using a set of criteria, then it is a low level task

Making Sense through Worthwhile Tasks

Can they be elevated? YES!

Develop a logical argument to use with Carrie to explain to her how you think she should react to the bully.

Trade your drawing of the action in the problem with a neighbor, analyze their representation, compare them to highlight similarities and differences

Connect your understanding of why the Nazis were allowed to behave as they did with our class discussions of the necessity of citizen involvement in government in the US

Dissect the three accounts of the discovery of gravity to uncover where they are consistent and where they are inconsistent. Where there are inconsistencies, justify which account must be correct.

DOK is not...

A taxonomy or hierarchy

The same as difficulty

About using the right verbs
(as illustrated by the brainstorming
example)

Why use DOK?

This model focuses on complexity of content standards in order to successfully complete a task.

The outcome, or product, is the focus of the depth of understanding.

The DOK is not determined by the verb, but by the context in which the verb is used and the depth of thinking required.

Words like “explain” and “analyze” must be considered in context. For example, the prompt, explain to me where you live, asks only for reciting of landmarks which is level 1, recall, thinking.

Same verb, different thinking

DOK 1-Describe three characteristics of metamorphic rocks (recall is required)

DOK 2-Describe the difference between metamorphic and igneous rocks (requires comparing, classifying, & distinguishing)

DOK 3-Describe a model that you might use to represent the relationships that exist within the rock cycle (requires conceptual understanding to solve a non-routine problem)

Difficult or Complex?

DOK focused on the intended outcome, not how tough a task might be...

What is the mental processing required to perform a task or generate a product?

Adding is a mental process...

Already knowing the rules for adding is the factor that influences the intended outcome

Once someone learns the rule, it is DOK 1 where recall, recitation, and repetition are required

Adding 5,683,121 to 7,334,809 is more difficult, but still a DOK 1, it is repetition

Difficulty

Difficulty is a measure of the number of students who answer a question correctly

It was difficult if not many students are able to reach the correct answer and it is not difficult if most students are able to find the correct answer... no matter what the complexity may be

DOK and Standards

Instruction and classroom tasks (both instructional tasks and assessment tasks) must reflect the DOK level of the intended learning outcome (standard)

DOK Level 1-Recall

Recall of information – facts, definitions, procedures, terms, formulas, processes

Examples:

Identify the basic rules for participating in games (volleyball)

Identify elements of music using the correct terminology

DOK Level 2 - Skill/Concept

Engagement of some mental processing beyond reproduction of a response, tasks require decision making, actions imply more than 1 step

Examples:

Compare the rules for participation in volleyball with those in badminton

Describe various styles of music using correct terminology, connecting that to the feeling each style is meant to convey

DOK Level 3 - Strategic Thinking

Requires deep understanding through planning, using evidence, and more demanding cognitive reasoning, demands are abstract

Examples:

Propose an additional rule for the game of volleyball, justify the need for this rule, analyze the affect on the game and players

Choose your favorite scene from a movie, construct a piece of music to fit that scene. Justify why your piece should replace what is there currently

DOK Level 4 - Extended Thinking

Complex tasks with high cognitive demand, make connections, relate ideas, devise an approach to a task

Examples:

Critique the proposed rule addition of classmates, apply knowledge of playing the game and current rules to determine the usefulness of the new rule and the rationale behind your decision

Review pieces of music intended to convey opposite emotions, make a mash up of those pieces to tell a story of conflict or conflicted emotions

Key Points to Remember

Yes, this is a Level 1 task...

DOK 1 + DOK 1 + DOK 1 does not equal DOK 3, just more DOK 1

DOK 1 does not have to come before DOK 2, or 2 before 3 and so on

DOK levels are based on the task
NOT on the student or their relationship to the task

DOK is not about difficulty

Key Points to Remember

DOK helps teachers to think about the how deeply a student will engage with the content

DOK levels aid in alignment of instruction and tasks to standards

Higher levels of DOK are more engaging for students

Higher levels of DOK are more authentic