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Art and Science of Teaching / Asking Questions—At Four Different Levels

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Questioning is a potentially powerful tool that teachers can use to help students better understand academic content. However, simply asking more questions of more students might not produce the desired effect.

In working with and observing teachers, I've found that the questions they ask students can be organized into four levels, each of which demands deeper thinking of the student.

**Level 1: Details**

Level 1 questions ask students to recall or recognize *details* about specific types of information. For example, a teacher might ask, "What is one of Jack London's most popular works, and what is it about?" or "Describe some important characteristics of the Rocky Mountains in the United States."

We commonly think of Level 1 questions as "lower level." However, they have their place in learning new content because teachers commonly begin by asking students questions about narrower types of information—such as specific people (like Jack London); specific groups and organizations (like the U.S. Congress); and specific intellectual, artistic, and cognitive products (like the Greek play *Prometheus Bound*)—before progressing to more general and abstract content, such as mental processes and procedures (like rounding techniques in mathematics). (For a look at these types of information and examples of the four levels of questions for each, go to [www.ascd.org/el0213marzano](http://www.ascd.org/ASCD/pdf/journals/ed_lead/el201302_marzano.pdf).)

**Level 2: Characteristics**

Level 2 questions move the focus to the *general category* to which a Level 1 topic belongs. For example, a Level 2 question about Jack London might be, "Jack London is thought of as an adventure writer. What are some characteristics of writers who specialize in adventure stories?" or "What are some differences between older mountain ranges like the Rocky Mountains and newer mountain ranges like the Olympic Mountains in Washington State?" Here the focus shifts from a specific person (Jack London) or place (the Rocky Mountains) to the general category to which that person or place belongs (outdoor adventure writer, mountain ranges).

Level 2 questions ask students to describe the *characteristics* of a given category. This might involve comparing and contrasting characteristics, such as those of two different mountain ranges. Such questions might also ask students to identify elements that fit within a category. For example, a Level 2 question about the Battle of Gettysburg might ask students to consider some other battles from wars they've studied that have had a similarly large loss of life.

Cognitively, Level 2 questions require a broader perspective than Level 1 questions require. Instead of thinking of Jack London in isolation, for example, students must consider him as part of a larger system.

**Level 3: Elaborations**

Level 3 questions ask students to *elaborate on the characteristics* of and elements within a cate-gory. Typically, such questions require students to explain the reasons something happens. For example, a teacher might say, "Explain why adventure writers tend to participate in adventurous situations themselves" or "Explain why older mountain ranges are less jagged." Level 3 questions can also require students to explain the effect of something. In a discussion about the Battle of Gettysburg, a teacher might ask, "What effect does major loss of life in a single battle have on ending or prolonging a war?"

Level 3 questions are more cognitively complex than Level 2 questions because students must explain the working dynamics of how or why certain things occur or exist.

**Level 4: Evidence**

Level 4 questions require students to provide support or evidence for their elaborations. They might ask students to identify sources that support their elaborations. A teacher might ask, "What sources support your conclusions about why older mountain ranges are less jagged?" They may require students to explain the reasoning behind their elaborations; the premises, rules, or generalizations they used to form their conclusions; or any exceptions that their conclusions don't seem to explain. When answering Level 4 questions, students might even find errors in premises, rules, or generalizations they previously thought to be true.

A teacher can initiate Level 4 questions in class, but these typically require extra time to answer because students must articulate sources or information or analyze their own thinking. Consequently, Level 4 questions frequently become homework that students begin in class but turn in later.

**Planning for Deep Thinking**

To plan for this type of leveled questioning, teachers first must consider the specific details they want to highlight about a topic and then construct appropriate Level 1 questions. Next, they must consider the general category to which their topic belongs and the characteristics of that general category. They will need to construct Level 2 questions around these. Teachers can ask Level 1 and Level 2 questions of the entire class, making sure that all students have opportunities to respond.

When constructing Level 3 questions, teachers need to consider which specific characteristics they would like students to explain. Because Level 3 questions are typically rather complex, the teacher might organize students in groups to formulate explanations. Each group might present explanations, followed by a class discussion of those explanations.

Finally, when designing Level 4 questions, teachers need to consider whether they want students to cite specific sources for their explanations, examine the logic of their own reasoning, or qualify their conclusions. Level 4 questions typically take more than a single class period to address and might even extend across multiple class periods, so it's necessary to take into account how long students will be given to complete such assignments.

Planning a lesson that uses all four of these levels can transform classroom questions into analytic tasks that require students to think at increasingly complex levels.

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