

Effective Questioning

Effective questioning can significantly enhance learning. When an instructor asks effective questions, he/she can: 1) stimulate learner knowledge, 2) guide learner problem-solving, and 3) better evaluate a students' learning allowing for more targeted teaching. The manner in which questions are asked and the types of questions have a direct impact on the effectiveness of the questioning.

Questioning Techniques:*

1. Phrase the questions clearly and succinctly
2. Ask questions with specific intention
3. Allow ten to fifteen seconds of wait-time
4. If the learner does not respond then rephrase the question at a lower level
5. Probe the learners' response to help them clarify ideas, reasoning process, or expand on their thinking
6. Do not make automatic assumptions that failure to answer a question is due to ignorance
7. Acknowledge correct responses from learners
8. Make conscious efforts to ask higher cognitive order questions

When questioning:

Use less of: What, When, Where, Who, and Which

Use more of: Why, How, Suppose, Justify, Defend, Elaborate

* http://www.worldscibooks.com/medsci/etextbook/5140/5140_chap1.pdf

Types of Questions*

Knowledge

- Students are required to recall the information learned and repeat it to the teacher.
- **Example:** *What are the major causes of fistula?*

Comprehension

- Students must explain topics, review items, and discuss issues; this includes translation, interpretation, extrapolation, and focuses on the meaning and intent of the material.
- **Example:** *What study would you order to confirm the diagnosis of myocardial infarction in a patient with a left bundle branch block?*

Application

- Students must use an abstraction (principle, theory, etc.) brought from other experiences. It requires that students apply previously learned knowledge and skills to new situations and necessitates the use of abstractions in specific situations.

- **Example:** *A 35-year-old woman presents to your office with a 1-month history of polyarthritis, rash, pleuritic pain, and low grade fever. What is the most likely diagnosis?*

Analysis

- Students must break down material into its component parts and then use a systematic process to reach a logical conclusion.
- **Example:** *How would you distinguish between polymyositis and viral myositis in a 42-year-old man with weakness and a rash?*

Synthesis

- Students must hypothesize, predict, and use the available information to arrive at a generalization---putting together elements or parts from many sources to constitute a new pattern or structure.
- **Example:** *If the blood culture were negative of the patient with echocardiographic valvular vegetations, how would you proceed with the antibiotic treatment?*

Evaluation

- Students must use specific criteria to assess situations or to justify previous responses.
- **Example:** *Explain your rationale for using combination drug therapy instead of mono therapy to treat a patient with pulmonary tuberculosis.*

**Derived from Bloom, B.S. (Ed.). (1956). Taxonomy of educational objectives. Handbook I: Cognitive domain. New York: McKay.*

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