

Teaching Tips

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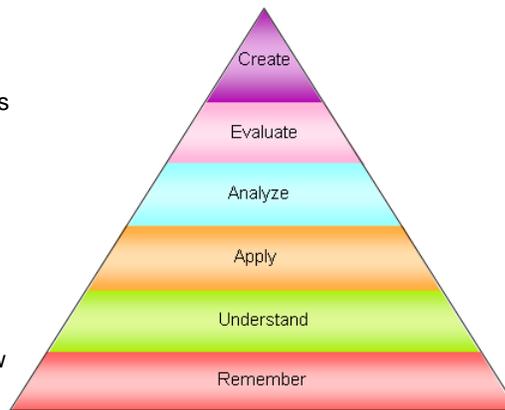


Questioning: A tool for clinical precepting

Effective preceptor questioning has been shown to facilitate the development of critical thinking skills, which are integral to clinical practice. Research suggests that most questions asked by clinical teachers are factual, or low-level questions. Bloom's taxonomy, a hierarchical model traditionally used for the classification of educational objectives, can also be used to guide preceptors in moving from lower to higher level questioning.

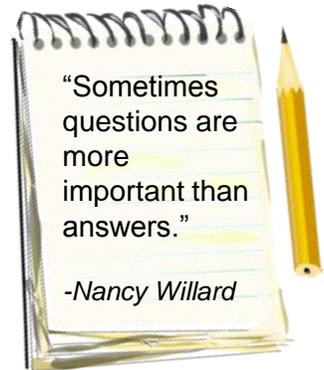
Bloom's taxonomy of cognitive thinking is depicted here as a pyramid with fundamental skills at the base and higher-order skills towards the top. Each of the 6 levels is represented by an action-oriented verb.

According to this model, questions that require students to **remember** facts or explain their **understanding** of a particular topic are at the most basic levels. Questions that call on learners to **apply** their knowledge, **analyze** information, **evaluate** next steps, or **create** new ideas, explanations or solutions to problems require both a foundational knowledge of the subject and higher order thinking.



Based on revised Bloom's Taxonomy
APA adaptation of Anderson, L.W. & Krathwohl, D.R., Eds. (2001)

Starting with lower level questions and moving up the hierarchy allows the preceptor to evaluate a learner's critical thinking ability. If a learner gets stuck on a particular part of the presentation, reformulating questions at a more basic level gives the learner an opportunity to respond, and enables the preceptor to continue moving forward as appropriate. Questioning using a supportive, non-confrontational style helps learners systematically think through what they know about a given topic, and progress up the hierarchy no matter where they begin.



References / Resources:

Anderson, LW, Krathwohl DR, Eds. A taxonomy for learning, teaching, and assessing: a revision of Bloom's taxonomy of educational objectives. New York: Longman, 2001.

Myrick F, Yonge O. Preceptor questioning and student critical thinking. *Journal of Professional Nursing* 2002;18(3):176-81.

Williamson K, Kang Y, Steele J, Gunderman R. The art of asking: teaching through questioning. *Academic Radiology* 2002;9:1419-1422.

Level	Example questions at each level of Bloom's Taxonomy	Additional action verbs for each level of questioning
Remember	Can you <u>list</u> the patient's symptoms?	Identify, define, name, recall
Understand	Can you <u>discuss</u> the possible diagnoses based on the symptoms?	Describe, explain, summarize, give an example
Apply	How would you <u>confirm</u> your diagnosis?	Interpret, define, utilize, demonstrate
Analyze	How would you <u>compare</u> the different treatment options?	Distinguish, differentiate, outline
Evaluate	How would you <u>choose</u> a treatment ? How would you <u>justify</u> your choice?	Decide, assess
Create	Can you <u>propose</u> a prevention strategy for this patient?	Role play, develop, design, generate