

## Ideas for Promoting Critical Thinking

One of the primary goals of clinical education is to promote critical thinking and problem solving. "Critical Thinking" is a broad term that can encompass a variety of skills. Try to move beyond basic "recall" questions (name the rotator cuff muscles), and consider using some of these questions/strategies to facilitate a STRONG set of critical thinking skills in your students!

**Comprehension** (Understanding): to convert information into a form that is personally meaningful, i.e., that makes sense to the individual who is learning it.

**Paraphrasing:** How would you put \_\_\_\_\_ into your own words?

**Illustrating:** What would be an example of \_\_\_\_\_?

**Application:** to apply abstract or theoretical principles to concrete, practical situations.

How can you make use of \_\_\_\_\_?

How could \_\_\_\_\_ be put into practice?

**Analysis:** to break down or dissect information into its component parts in order to detect the relationship among the parts or the relationship between the parts and the whole.

**Prioritization:** What are the most important/significant elements of \_\_\_\_\_?

**Deconstruction:** What assumptions/biases underlie or are hidden within \_\_\_\_\_?

**Compare/Contrast:** What parts of \_\_\_\_\_ would be similar to/different than \_\_\_\_\_?

**Synthesis:** to build up or connect separate pieces of information to form a larger, more coherent pattern.

**Integration:** How can this idea be combined with \_\_\_\_\_ to create a more complete or comprehensive understanding of \_\_\_\_\_?

**Classification:** How can these different ideas be grouped together into a more general category?

**Evaluation:** to critically judge the validity (truth), morality (ethics), or aesthetic (artistic) value of ideas, data, or products by using relevant assessment criteria (standards for judging quality).

How would you judge the accuracy or validity of \_\_\_\_\_?

How would you evaluate the ethical (moral) implications or consequences of \_\_\_\_\_?

**Deduction:** to draw conclusions about particular instances that are logically consistent with or derive from general principles and premises.

What specific conclusions can be drawn from this general \_\_\_\_\_?

If this general \_\_\_\_\_ were true, then it would

logically follow that \_\_\_\_\_.

What particular actions or practices would be consistent with this general \_\_\_\_\_?

**Adduction:** to make a case **for** an argument or position by accumulating supporting evidence in the form of logical arguments (rational thinking) or research evidence (empirical reasoning).

What are logical arguments for \_\_\_\_\_?

What research evidence supports \_\_\_\_\_?

**Refutation:** to make a case **against** an argument or position by accumulating contradictory evidence in

the form of logical arguments (rational thinking) or research findings (empirical reasoning).

What are logical arguments against \_\_\_\_\_?

What research evidence contradicts \_\_\_\_\_?

**Balanced Thinking:** to carefully consider arguments/evidence **for and against** a particular position or viewpoint.

What are the strengths/advantages and weaknesses/disadvantages of \_\_\_\_\_?

What evidence supports and contradicts \_\_\_\_\_?

**Multiple Perspective-Taking:** to view an issue from a variety of viewpoints, standpoints, or positions in order to gain a more comprehensive and holistic understanding.

How might people from different cultures view this \_\_\_\_\_?

How might people who differ in age or gender react to \_\_\_\_\_?

**Causal Reasoning:** to identify cause-effect relationships between different ideas or actions.

How would you explain why \_\_\_\_\_ occurred?

How would \_\_\_\_\_ affect or influence \_\_\_\_\_?

**Creative Thinking:** to generate imaginative ideas, unique perspectives, innovative strategies, or novel (alternative) approaches to traditional practices.

What might be a metaphor/analogy for \_\_\_\_\_?

What could be invented to \_\_\_\_\_?

What might happen if \_\_\_\_\_?

Incorporating open ended questions such as these in a non-threatening way can take the critical thinking that occurs during a clinical experience to a whole new level. These questions (and their responses) also allow a CI and student to identify where errors in problem solving are occurring to effectively focus teaching.

Make it a personal CI growth goal to try at least one new category of critical thinking question with your student each week!

