

Teaching Skills

Using cognitive theory to enhance your teaching skills

Cognitive theory: a learning theory of psychology that attempts to explain human behavior by understanding the thought processes.

Implications for Teaching

- Cognitive learning theory is best used to guide learning when trying to build useful knowledge structures and teach clinical reasoning.
- The theory suggests that EXPERIENCE with clinical cases is crucial for organizing knowledge in memory and facilitating recall. This implies that teachers should:
 - Be mindful of the learner's prior clinical experiences before judging the learner's performance.
 - Facilitate recall of prior experiences during clinical case discussions.
- Teachers should expose early learners to TYPICAL cases with guided study plans to facilitate development of strong anchor prototypes. Subsequent case exposure should be directly related to the learner's understanding of these anchor cases using a compare and contrast strategy.
- Teachers should encourage learners to actively IDENTIFY THE PROBLEM they are trying to solve, using complex clinical syndromes with ambiguity. Formulating the case at this abstract level facilitates connections to prototypes.
- Teachers should encourage learners to use a COMPARE AND CONTRAST strategy when reading about clinical presentations. Specifically, even after the final diagnosis is known, learners should select at least two leading diagnostic hypotheses and read about the, comparing and contrasting clinical presentation, physical exam findings, lab and imaging results, all in an effort to learn (and be able to recall) key discriminating features for the diagnoses under consideration.
- Teachers should listen to learners reasoning out loud (in response to "what do you think is going on..."). This type of discourse is a clue to the learner's understanding of the case and correctness of the diagnosis being entertained.
- Teachers should encourage case write-ups that demonstrate comparing and contrasting key and discriminating clinical features in justifying the selection of a working diagnosis among the differential.