

## Teaching Knowledge

Davis, James R. and Arend, Bridget D. (2013). *Facilitating Seven Ways of Learning*. Sterling, VA: Stylus Publishing, LLC.

The authors recommend creating learning objectives for each class period and designing the class based on them. The following evidence-supported insights and advice are for teaching knowledge. Many of these ideas can be applied to individual and online instruction.

- Although ineffective for other outcomes, lectures are an efficient means for transmitting information to *receptive* audiences.
- Negative emotions, from past or present experiences, can block learning.
- Desire to remember does not impact memory.
- Being told that specific information will be on a test (or needs to be remembered) does not significantly help people remember it.
- Working memory can hold only 5-9 bits of information at any given time; in order to retain more, people have to “chunk” information into themes, groups, or categories.
- A professor can help students discover the overall structure in presented information, as well as create opportunities for learners to organize new information.
- When asked to recall it differently than how they chunked it, people have difficulty recalling new knowledge because it is not yet diversely integrated with prior knowledge.
- Rehearsal alone (memorization) will not help students recall information in diverse contexts, but most students do not know how to learn beyond memorization.
- Introducing topics in ways that trigger students' prior knowledge or experiences, routinely summarizing main points, and concluding topics with a comprehensive summary and an explanation of how the topic ties to past and future knowledge or experiences can help students focus.
- New information presented in context helps students integrate it.
- Stories, images that clearly support the message, word associations, discussions, role-playing, and structured opportunities for reflection help students process information.
- Organizing key points differently on different days can assist learners with integrating that knowledge; comparison and contrast exercises help.
- Prior knowledge or experiences can lead to stubborn misinterpretations.
- Instructors often make incorrect assumptions about students' background knowledge.
- Pretests, background-knowledge probes, or discussions can be used to determine students' different prior knowledge or experiences.
- If people are reading (a handout or a graded test) while listening to a lecture, only one message will get through.
- Typically, students are inattentive during the first 5 minutes, attentive for the next 10-15 minutes, inattentive for another 5 minutes, and so on.
- Attempts to compete with distractions ultimately fail to communicate.