

# Center for Learning and Teaching Excellence Teaching Tips



## Apply Memory Principles in Teaching



### **Prior knowledge:**

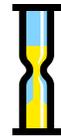
Find out how much students already know about a subject and if they have gaps in their understanding. Provide either additional teaching or suggest where they can locate appropriate materials to get them up to speed.

### **Process meaning before detail:**

Provide students a context for learning. Help them find meaningful ways to remember and group ideas. Provide a course structure that is organized around “core concepts” so that it will support subsequence learning.

### **Time and practice:**

Students need time and practice in order to process working memory into long-term memory. In your classes give students opportunities to go beyond just listening and instead have them practice and apply information. It takes time and effort to learn so be sure to coach and guide students on the amount of time needed to devote to learning.



### **Repetition:**

Repeat information and be sure to repeat in a single class period. The timing of the repetition makes a difference so do not delay it. Some contend that it takes repeating something four times in a ninety minute period for it to be processed. Provide opportunities for students to repeat information inside and outside of the classroom.

### **Expert and novice:**

We organize knowledge differently and an expert is able to go beyond the information provided in order to expand their thinking. A novice lacks the same regulatory processes and knowledge organization. Given that you may lecture frequently, keep in mind that novices' understanding isn't sufficiently differentiated and that you need to be careful and not teach over their heads. When you can, you need to make your thinking explicit to your students and be sure they hear or see how you solve problems and make inferences.



### **Remember at a higher level:**

Allow students to bring memory aids such as fact sheets into test. Advise student when they study that they need to be able to reorganize information and not just repeat. Be sure to tell them that their study strategies influence their learning.

For other resources, visit these resources:

<http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/adults-3.htm>

<http://www.oic.id.ucsb.edu/TA/tips/part.html>

<http://db.cte.iastate.edu/tips/>