Class Activities

# Chapter 5: Working Memory: Forming and Using New Memory Traces

## 1. The Power of Chunking

The purpose of this exercise is for students to learn more about the idea that short-term memory (STM) has a limited capacity such that it holds 7±2 bits of information at any given time, and how we can increase its capacity using clever strategies. Begin by presenting students with seven random words on an overhead projector for 10 seconds. Remove the words from the screen and the students to write down as many as they can recall. Next, present students with a new set of seven words for about 10 seconds, but this time chunk them into groups of two to three. After the presentation, have them write down how many they can recall. Lastly, present seven new words on the screen but incorporate them into a story. Again, after 10 seconds, have students write down all the words they can remember. If chunking is as powerful as it should be, you should find that the more students are able to group information into a single chunk, the better they will be able to recall the information.

## 2. The Serial Position Effect

This activity is twofold. First, it helps the students learn vocabulary associated with Chapter 5, and second, it demonstrates the concepts of recency and primacy. This activity is done as a class. Begin by telling the class that you’ll be giving them a pop quiz on key terms from this chapter, but you want to give them an opportunity to study a little first. Present 20 Chapter 5 terms with definition individually in a PowerPoint presentation. Put one term/definition per slide and time the slideshow so each slide is visible for 15 seconds. After the slideshow completes, provide the students with a list of the 20 words and ask them to write their definitions. Collect the responses and score the results. The data should support the serial position effect such that words studied first and last in the list are best remembered.

## 3. Iconic Memory

This activity demonstrates iconic memory. First, show students the brief (30 seconds) video clip below. Then, ask them to write a summary of the video and to include as much detail as possible. When they’ve completed their summary (5 minutes or so), ask them the following questions:

1. Who was the last to jump off the raft? (little girl)

2. What color was the boat? (white/red accent)

3. How many people were in the canoe? (one)

Students should be able to provide a good gist of the video, but very few, if any, will identify these specific details even though they did receive this visual information. Use this as a starting point to discuss the limited capacity of iconic memory and why it is so limited.

<https://www.youtube.com/watch?v=pHpHKQ8XAdA#action=share>