

AUTHOR SPOTLIGHT

- *From the Desk of Janet Zadina*

The Memory Process and Figure 2.1

Figure 2.1 in Chapter 2 was created to help students follow the stages of the memory process as they learn about it. When teaching the process, referring to *Figure 2.1* throughout will help students follow along and see how what they are learning fits into the bigger picture of memory. The figure can also become a handy reference when photocopied and kept handy when studying other materials in other classes. It reminds students of all the steps that they can take to encode their memory of material in such a way that they can use it later, for a test or in life.

- *From the Desk of Deborah Daiek*

Activity 2j – Try to Understand What You Don’t Know

Activity 2j illustrates how important comprehension is to memory. If students don’t understand what they are reading, they will have difficulty remembering the content. It’s important for instructors to make certain students truly understand a reading and not assume it, just because they can answer the questions following it.

More importantly, it’s important for students to realize the need to fully comprehend what they are reading, or they aren’t learning the material. *Activity 2j* drives home the point to students that if they don’t speak the language of the reading, they are simply looking at the words, not reading them. (Go back to the definition of reading from Chapter 1.) Ask students how they would do on a quiz on this reading. Most would say they wouldn’t do well because they don’t understand the language. Ask them how this is different from reading a textbook written in English that they don’t understand.

Students have become gifted at searching for context clues to answer questions attached to readings. The questions in *Science and Strategies* were selected to force students to dig deeper, which will let instructors know if students understood what they were reading. Students need to learn that it’s unlikely that they will perform well on exams if they don’t understand the language or content presented. They may be able to answer some objective questions, but will find it next to impossible to answer essay questions, which require students to evaluate information. Teach them to test their understanding of the textbook information by questioning it, predicting additional information, and connecting it to what they already know.

ACTIVITIES

ACTIVITY 1: Recency Effect

Goal

Teach students that to remember new information effectively, material has to be organized and related to something they already know. This activity demonstrates the concept of **chunking** that is discussed in detail in Chapter 2. This activity is adapted from Frank Smith’s *Reading Without Non-Sense*. Students are introduced to the Recency Effect; students remember the beginning and end of a chapter but forget

everything in the middle. They haven't learned strategies yet to help them organize and remember the information.

Directions

Copy the following three pieces of text into three PowerPoint slides.

Slide 1

A S W C R L O Q T P F L

T K E T H D S R O E D

N A S I L H N P L E I F

Slide 2

KING EGG RAIN SESSION LAUGHED

TOES CERTIFICATE KINESTHETIC

Slide 3

THE KING LAUGHED

WHEN HE NOTICED THE PURPLE

FEATHERS IN HER HAIR

1. Introduce the activity by explaining to students that Chapter 2 addresses memory and demonstrates how memory, learning, and reading are linked.
2. Show students Slide 1. It's important that you give them no more than thirty seconds to view it and provide no learning prompts. After thirty seconds, ask them to recall as many letters as they can remember. (There are a total of 35.)
3. Next, show them Slide 2. Again, only allow student thirty seconds to view it and ask them to recall as many letters as they can. Chances are they will remember more because the letters are now organized into words. Most students will remember at least two words. Total the number of letters in the words they remember, but still do not discuss the activity. (There are a total of 51.)
4. Finally, show students Slide 3 for only thirty seconds and then ask them to recall as many letters as they can. Most students will remember 100% of the letters because they are organized into words and the words are organized into a meaningful sentence. (There are a total of 53 letters.)
5. Now, ask students why they believe they couldn't remember the letters in Slides 1 and 2 as easily. Their responses might include the following:
 - Not enough time
 - No reason to remember it
 - Not relevant
 - Not concentrating
 - Frustration with exercise
 - Not intending to learn or a "so what?" attitude (This is a very important issue that is addressed in Chapter 2. Students need to know that their desire or intent to learn significantly impacts their ability to remember what they read. Thinking, learning, and remembering go hand-in-hand.)
6. Now, ask students to discuss why they could remember more letters in Slide 3. Their responses might include the following:
 - The letters were organized into words.

- The words were organized into a sentence.
 - There were fewer separate items to remember.
 - They could remember the words more easily than the individual letters.
7. After a few minutes of discussion, you can introduce the idea of organizing information and creating systems to help with memory. Slide 1 showed a number of isolated letters. They weren't related so it was hard to memorize them individually. The letters in Slide 2 were organized into meaningful chunks, or words, which made it easier to remember more of them, even though the group of words didn't make sense – were not well organized. Finally, the letters in Slide 3 were organized into words, and the words were organized into a meaningful sentence. By remembering the words in the sentence, students could easily remember all of the letters. Explain that many students study their course material as if what they are reading consists of isolated and unrelated pieces of information (Slide 1). Stress how important it is for them to become engaged and actively involved with new information, and to learn how to organize new information so they can remember it more efficiently. The focus of Chapter 2 is to show that most people actually have good memories, they just have a lot to remember and don't have a good system. Chapter 2 explains the barriers to remembering information and provides many strategies for overcoming those barriers and remembering information more effectively.

Benefit to Student

Students should begin to understand why they forget information from their reading, if they try to read straight through. This activity addresses ways to improve their memories.

Benefit to Faculty

This activity is very effective in teaching students the need to organize information in a meaningful way.

ACTIVITY 2: Remember by Making Associations with Visualization

Goal

The goal of this activity is to introduce one of the concepts of memory and to demonstrate that using strategies, such as creating associations, can help to increase your recall of new information.

Directions

1. Ask students to take out a piece of paper and a pencil. Tell them not to write anything down until you ask them to do so.
2. Tell students you will be reading out a list of words (following here) and want them to remember as many items as they can:
 - hamburger
 - feather
 - gate
 - closet
 - tree
 - marshmallow
 - religion
 - fish
 - men
 - beaks

3. Now ask students to write down as many words as they can remember in the order you read them in one minute. Have students share their lists. Some will have used memory strategies they have developed to help them remember the items. Don't have them share their strategies at this point.
4. Ask students to turn their papers over and write the numbers 1 through 10, and then put their pencils down and listen as you read the list again.
5. Tell students to close their eyes and try to see the pictures you will create for each word. As you read the list again, provide an association for each word. Use associations that are strange or silly or rhyme. (Yes, even silly! The stranger the connections are, the more likely students will be able to remember the list of words.) Provided here are possible descriptions you could use, but feel free to create your own.
 - One - **BUN** for a **hamburger**. One enormous hamburger on the largest bun I've ever seen. Hamburger.
 - Two - **SHOES** with a **feather**. Two fun shoes dancing with feathers. Big shoes with blue feathers. Feather.
 - Three - **KEYS** for a **gate**. Three keys to open the gate. Don't be late. Gate.
 - Four - **DOOR** as a **closet**. At four the door to your closet opens. Closet.
 - Five - **HIVE** in the **tree**. Five hives in the tree. BZZZZZZZZZZ, cut the tree. Tree.
 - Six - **STICKS** for **marshmallows**. Pick up six sticks to roast marshmallows by the campfire. Marshmallows.
 - Seven - **HEAVEN** for a **religion**. I see seven nuns flying to heaven; it's my religion. Religion.
 - Eight - **BAIT** for **fish**. Eight pieces of bait to catch fish. Big wiggly bait for big slippery fish. Fish.
 - Nine - **FINE men**. My goodness! Nine fine men are here! Fine men are always welcome. Men.
 - Ten - **HENS beaks**. Ten hens are loose and poking with their beaks. Red hens' beaks. Beaks.
6. Have students open their eyes and try to recall and write down as many of the words in order as they can.
7. When students have finished writing, ask them if it was easier to remember the list the second time. Most students find using the associations provided and visualizing them does improve their ability to remember the words. Connecting information to familiar items helps to facilitate the memory. Also, connecting words that rhyme helps to trigger memory. This activity is a helpful tool for proving the point that doing something with information is sometimes necessary in order to remember it effectively. Learning about and using strategies can be useful. If any students used different memory strategies, invite them to share their strategies with the class.

Benefits to Students

Students learn that there are strategies and steps to improving one's memory. Memory can be enhanced when you know how the brain learns. This activity uses visualization, repetition, intent, and making connections.

Benefit to Faculty

This is an engaging strategy to drive home a couple of key points regarding the memory. Students usually like this activity. The more connections students make with information, the more likely it is that they will remember it.

ACTIVITY 3: Chunking Introduction

Goal

Students will understand how to chunk information and why it's beneficial to memory.

Materials

- Box (size for a ream of paper works best, see if your copy center on campus can provide you one)
- Towel to cover items
- You can put anything in the box you want and create your own categories. Suggested items provided here, but have them all mixed up.

Drinking Items Straw Paper cup Coffee mug Plastic glass Empty water bottle	Sweeteners Packet of regular sugar Packet of sugar alternative Honey Brown sugar	Food Items Candy bar Marshmallows Apple Banana Raisins
Camping Items Map Flashlight Matches Can opener Bug spray	Writing Materials Pen Pencil Chalk Crayon Marker	Items Used to Hold Things Together Paper clip Safety pin Needle and thread Staple Chip clip

Directions

1. Bring out a box filled with items (see above list for ideas for items).
2. Have students look in the box. Either they can come up and look in for a minute or you can walk around the class with the box. Students are not allowed to touch, but only to look at everything the way it is in the box.
3. Have students list as many items from the box as they can remember on a separate sheet of paper.
4. Have students share their lists. Ask why they didn't remember all of the items. Some possible responses which you can use to connect with reading:
 - Items weren't organized; didn't know what was there
 - Hard to see items; they were all mixed together
 - No reason to remember all of the items; "So what?" "Who cares?" (This affects memory a great deal. Students need to learn that they need to intend to remember and establish a purpose for remembering.)
 - Too many to remember
 - Not enough time to remember
5. Ask students how they could remember the items more effectively. Some possible responses:
 - Dump all the items out so that everything can all be seen.
 - Make sure you know what the items are.
 - Give yourself time for repetition and to remember.
 - Sort the items into like groups; establish categories.
6. At this point, you can introduce the concept of chunking. Have students sort through the box and put the items into categories. Have students look at the items once again for a minute. Cover the items with the towel and now ask students to see how many items they can remember.
7. Debrief. Ask students if chunking helped them to remember and then make the transition to relating chunking to reading.

Benefit to Students

This activity works very well for struggling learners. Students can manipulate the items and they are able to see and experience how organizing materials into categories makes a difference.

Benefit to Faculty

This is an engaging introduction into chunking items. It is an easy buy-in for students because they can experience chunking's effectiveness.

