

The Student Success Curriculum

Topic 6: Memory

To memorize information, a person must interpret incoming data, store it for use in the future, and recall it when necessary. Students who understand how memory works are more likely to use study skills that help them organize and input information in a logical manner. This cuts down on overall study time and leads to better recall of information. This class aims to teach basic information about memory and mnemonic activities that aid information recall.

Teaching Strategies:

Lecture

Memory Games

Worksheet Completion

Self-assessment

Large Group Discussion

Small Group Activity

Time Frames

The implementation time for this material is approximately two hours. This material can be paired with the material in Topic 5 or with the material in Topic 6.

Instructor Preparation

- ✓ Read Topic 6: Memory in the *Student Success Guide*
- ✓ Review the PowerPoint slides side by side with the lecture outline for Topic 6.
- ✓ Plan a reading assignment to use with the activity.
- ✓ Print a variety of blank graphic organizers, available from ABMP's Student Online Resources, and distribute them to students.

Resources

Locate and read any of the following resources to support an understanding of the topic.

- ✓ *Harvard Medical School Guide to Achieving Optimal Memory* by Aaron P. Nelson and Susan Gilbert. McGraw-Hill.
- ✓ *In Search of Memory: The Emergence of a New Science of Mind* by Eric R. Kandel. W. W. Norton.
- ✓ *The Memory Book: The Classic Guide to Improving Your Memory at Work, at School, and at Play* by Harry Lorayne and Jerry Lucas. Ballantine Books.
- ✓ *The Memory Doctor: Fun, Simple Techniques to Improve Memory & Boost*

- ✓ *Your Brain Power* by Douglas J. Mason and Spencer Xavier Smith. New Harbinger Publications.
- ✓ *Your Memory: How it Works and How to Improve It* by Kenneth L. Higbee. Marlowe & Company.

Supplies & Equipment

- ✓ *Student Success Guides* (one per student)
- ✓ Planned reading assignment
- ✓ Whiteboard and markers, or chalkboard and chalk
- ✓ LCD/DLP projector, laptop, and PowerPoint presentation,
- ✓ or printed overheads and an overhead projector

Learning Objectives

After reading Topic 6 and completing the worksheets associated with this topic, each student will:

- ✓ Access his or her current understanding of memory.
- ✓ Identify three ways to organize notes to improve memorization and information recall.
- ✓ List the three primary types of memory and briefly define each type.
- ✓ Describe three factors that impact memory.
- ✓ Describe three important methods to effectively process information.
- ✓ Discuss two benefits of repetition and over-learning.
- ✓ Use rhyming, songs, catchphrases, catchwords, and mind maps to learn and recall information.

Lecture Outline

This lecture outline is meant to be used in combination with the *Student Success Guide*, and the PowerPoint slides included with this teaching kit. The information in this lecture/activity follows the information presented in the *Student Success Guide* with page numbers of the associated materials provided to the right of the heading in parentheses. Instructors are encouraged to add or delete slides and information as they deem appropriate to meet the particular needs of their student groups. The PowerPoint slides can be shown with an LCD projector, or printed onto transparencies for overheads.

Slide 1: Title Slide

Introduce the topic (Memory) and direct students to page 58 in the *Student Success Guide*. Ask students to complete the Memory Assessment (Worksheet 6-1) and discuss what they know about their memory and when and how it functions best (e.g., when I've had enough sleep, when I don't eat a lot of sugar, etc.).

Slide 2: Goal of this Lecture/Activity

The goal of this lecture is to help students understand how they take in data and store it for use in the future. This allows the student to organize and input data in an efficient way to cut down on study time and recall information more easily.

Slide 3: Memory Game #1

Give students thirty seconds to look at this slide.

Slide 4: Memory Game #2

Ask students to write down the names of all the items they remember.

Slide 5: Memory Game #3

Show the image again and have students count how many images they got correct. Have students share their results.

Slide 6: Letters and Memory #1

Ask students to look at the slide for ten seconds and then turn to the blank slide.

Slide 7: Blank Slide

Ask students to write down as many letters as they can remember in order.

Slide 8: Letters and Memory #2

Ask students to look at the slide for ten seconds and then turn to the next blank slide.

Slide 9: Blank Slide

Ask students to write down as many letters as they can remember in order.

Slide 10: Numbers and Memory

Ask students to look at the slide for ten seconds and then turn to the next blank slide.

Slide 11: Blank Slide

Ask students to write down as many letters as they can remember in order.

Slide 12: Answers

Now go back to the letter slides (6 and 8) and have students check their answers and count the number they got right. Have students share their results. They might notice that numbers are easier to remember than letters.

Slide 13: Types of Memory (p. 59)

In the games used in the slides above, students warmed up their memories and received a quick glimpse into the way their memory works. This slide is used to show the three primary types of memory side-by-side. Details of each type are described in upcoming slides.

Slide 14: Sensory Memory (p. 59)

Define sensory memory and explain how the findings of Segner help us understand the way that sensory memory functions.

Slide 15: Short-Term Memory (p. 59)

Define short-term memory and describe the two parts of short-term memory (immediate memory and working memory). Discuss Miller's theory of seven chunks (give or take two chunks) and discuss some of the ways this theory might be applied to study sessions, note taking, and memorization. Working memory is discussed in greater depth in the next slide.

Slide 16: Working Memory (p. 59–60)

Working memory is accessed when a person temporarily stores information so he or she can work with it (organize it and create relationships with relevant long-term memories). Use the example provided in the *Student Success Guide* to help students understand working memory.

Slide 17: Long-Term Memory (p. 60)

Define long-term memory and discuss how information is stored.

Slide 18: Factors that Impact Memory (p. 61)

A number of different factors can impact the memory process. These include emotions, sleep, aging, and effective processing methods. Discuss the reasons why each of these factors impact memory.

Slide 19: Effective Processing Methods (p. 62)

Briefly review the steps a person must take to remember something. Each of these items is discussed in more detail in upcoming slides.

Slide 20: Pay Attention! (p. 62)

Information can't be memorized effectively without paying attention and intending to learn it. Discuss the ways that students can pay attention in school (taking notes, asking questions, reading ahead in the textbook, etc.). Use the examples of Joe and Sam to highlight this idea.

Tips!

Make mind maps of lecture material and hand them out to students before the lecture. Provide blank graphic organizers at the beginning of classes for students to use to take notes during lectures or demonstrations.

Slide 21: Understand It! (p. 62)

To memorize something a student must first understand it. While it sounds simple, many students fail to look up words they don't understand or don't really think about what they are hearing or reading. Talk over strategies for understanding challenging information.

Slide 22: Organize It! (p. 63)

Well-organized information is easier to understand than disorganized information. Discuss ways that people can keep information organized including the use of mind maps and graphic organizers, which are shown on upcoming slides.

Slide 23: Mind Maps (p. 63)

Discuss the use of mind maps and explain how mind maps are designed. Mind mapping is an effective note taking strategy.

Slide 24: Graphic Organizers (p. 63–65)

Discuss the use of graphic organizers and explain that they help people to visually manage information. A variety of blank graphic organizer forms are available to students on ABMP's Student Online Resources at www.abmp.com.

Slide 25: Grouping (p. 66)

Explain how to use grouping for the organization of study notes. Ask students to turn to page 66 in the *Student Success Guide* and discuss the example of grouping used to organize notes on Swedish massage.

Slide 26: Catchwords (p. 67)

Catchwords help a student catch hold of the information and create memory cues to that lead to where the information is stored in long-term memory.

Slide 27: Catchphrases (p. 67)

Catchphrases are just like catchwords only they are made up using the first letter of other words. Catchphrases work well when it is too difficult to make up a good catchword.

Tips!

Remind students of memorization strategies during review sessions for written exams or quizzes. As a review strategy for quizzes or exams, it works well to break students into groups to create songs, rhymes, catchphrases, or catchwords.

Slide 28: Songs and Rhymes (p. 68–69)

Rhythm and melody provide built-in memory cues that help people recall information. Ask students to turn to page 68–69 in the *Student Success Guide* to review the notes put into song and poem form.

Slide 29: Repetition and Over-Learning (p. 69)

Discuss the methods to over-learn material and explain the importance of repetition in memorization.

Activity: Memory Techniques Really Work

Introduction: Students often won't take the time to use songs, rhymes, mind maps, catchphrases or catchwords for learning but these techniques really work. To help students see the benefits of using songs and rhymes try this activity.

Directions:

1. Allocate a short reading assignment (something students can read and take notes from in twenty minutes) from one of the students' textbooks on a general message topic.
2. After the students have completed the reading assignment break them into smaller groups and ask one group to write a song for the material, one group to write a poem for the material, one group to write a catchword, one group to make a mind map, and one group to write a catchphrase.
3. Give the groups twenty minutes to complete their assignment and then have them present what they developed.
4. The last step in the activity is to give students a short quiz on the material. Students sometimes feel shocked to be asked to take a quiz, but it helps them see how much they memorized in a short period of time. The students who do badly on the quiz tend to be the students who did not participate fully in the activity.

Memory Milestones Checklist

Name: _____

Date: _____

0 = The student does not have this skill

1 = The student sometimes demonstrates this skill

2 = The student almost always demonstrates this skill

0	1	2	
			Rewrites and reorganizes written notes.
			Achieves good marks on written quizzes and exams.
			Uses over-learning activities and repetition to memorize materials.
			Shows interest in strategies for memorization and looks for new ways to better keep and organize lecture and written notes.
			Participates fully in classroom activities and seeks to understand materials and lectures fully.
			Enjoys using strategies like rhyming, songs, catchwords, and catchphrases to memorize material.