

Chapter 2— Skills You Need: Memory, Note Taking, and Studying Techniques

MULTIPLE CHOICE

1. Einstein, Mullet & Harrison (2012) were interested in studying the:
 - a. Effect of mnemonics
 - b. Organizing as a study technique
 - c. The impact of time on studying
 - d. The testing effect

ANS: D

2. What was the key finding from the Einstein, Mullet & Harrison (2012) study?
 - a. Students who engaged in testing did better than those who just studied
 - b. Students who spent more time studying did the best
 - c. Students who were most confident did the best
 - d. All of these statements are true

ANS: A

3. Students often underestimate the importance of:
 - a. Reviewing
 - b. Rehearsing
 - c. Studying
 - d. Testing yourself

ANS: D

4. Encoding, one of the parts of memory processes refers to:
 - a. How easily you can retrieve what you have learned during a test.
 - b. How you get memories into your memory systems.
 - c. The duration of memories.
 - d. Your level of intelligence.

ANS: B

5. Which of the following statements about encoding memories is true?
 - a. Multi-sensory learning (i.e. using auditory and visual strategies) can improve memory encoding and learning.
 - b. It is best to focus on one modality during the encoding stage.
 - c. While multi-sensory learning has some value, the investment of time to use this strategy will not produce the payoff you desire.
 - d. Visual strategies are more effective than auditory ones during the encoding process.

ANS: A

6. Working and long term memory is connected to:
- The first memory process of encoding.
 - The second memory process of storage.
 - The third memory process of retrieval.
 - None of these are correct.

ANS: B

7. Which of the following statements best describes the memory process?
- Memory is a one way street where we take in information and then store it in our long term memory system
 - Memory happens naturally so it's not necessary to engage in memory strategies
 - Our long term knowledge helps us take in new memories
 - All of these statements are true.

ANS: C

8. According to Miller's research, we can hold onto ____ number of times at a time in short term memory.
- 3 +/-1
 - 5 +/- 2
 - 7 +/- 2
 - 9 +/- 3

ANS: C

9. Which of the following statements about long term memory is true?
- Long term memory is best during childhood.
 - Most of our general knowledge is stored in long term memory.
 - Long term memories usually fade within 6 months.
 - As you learn more information, you will lose your old memories.

ANS: B

10. Which part of the memory system has an unlimited storage capacity?
- Long-term memory
 - Short term memory
 - Working memory
 - Sensory memory

ANS: A

11. What famous psychologist researched the capacity of short-term or working memory?
- Miller
 - Woolfolk
 - Freud
 - Gardner

ANS: A

12. Your friend asks you to buy 20 items at the store. Given what you know about the capacity of working memory, how many items are you most likely to remember?
- a. 2
 - b. 7
 - c. 10
 - d. 20

ANS: B

13. In working memory most people usually have the capacity to:
- a. Remember sensory information but not content.
 - b. Remember only meaningful information.
 - c. Remember approximately 5 to 9 items at a time.
 - d. Remember information for up to a year.

ANS: C

14. Which of the following statements about retrieval are true?
- a. It is how we access information when we need it
 - b. It helps us learn content
 - c. Neither of these statements are true
 - d. Both of these statements are true

ANS: D

15. Based on the testing effect, what study strategy should you use?
- a. Practice quizzes
 - b. Flashcards
 - c. Testing yourself
 - d. All of these are effective strategies

ANS: D

16. Which of the following memory strategies is least effective?
- a. Rehearsal
 - b. Elaboration
 - c. Stories
 - d. Mnemonics

ANS: A

17. Examples are an excellent example of:
- a. Rehearsal
 - b. Elaboration
 - c. Chunking
 - d. Quizzing

ANS: B

18. An example of elaboration, a memory technique, is when you:
- a. Provide tons of details in your writing.
 - b. Try to find connections between information you already know and information you are trying to learn.
 - c. Focus on your short term versus long term memory system.
 - d. Repeat the information over and over again so that you can really learn it.

ANS: B

19. Stories are powerful memory techniques because:
- a. Meaning capitalizes on elaboration
 - b. Stories evoke emotions and emotions increase learning
 - c. Both of these statements are true
 - d. Neither statement is true

ANS: C

20. Chunking is an important and powerful memory strategy. An example of chunking is:
- a. When you try and remember everything you know about a topic as quickly as possible.
 - b. When you try and organize information, especially making outlines or other hierarchical strategies.
 - c. Keeping a time diary.
 - d. A technique that will decrease your short term memory capacity.

ANS: B

21. In textbooks, _____ are an example of chunking.
- a. Chapter
 - b. Index
 - c. Bold words
 - d. All of the these are examples

ANS: A

22. Mnemonics are memory strategies that act as a tool to aid in recall. Examples may include:
- a. The use of Acronyms.
 - b. The use of Acrostics or sentences.
 - c. Creating sentences like "Please Excuse My Dear Aunt Sally".
 - d. All of the above are examples of mnemonic devices.

ANS: D

23. The memory process of retrieval refers to:
- a. Finding information or memories that were previously stored.
 - b. Storing information in a hierarchical manner.
 - c. Relying on sensory memories.
 - d. Rehearsing or repeating information.

ANS: A

24. Which of the following statements about forgetting is true?
- a. We remember most of what we learned.
 - b. We forget a lot, but this happens very gradually
 - c. We forget information we learned quickly, especially if we are not actively using the information.
 - d. Children forget more often than adults.

ANS: C

25. What reading step is associated with retrieval practice?
- a. Read
 - b. Recite
 - c. Review
 - d. Re-read

ANS: B

26. According to Ebbinghaus, we forget ____% of what we've learned within a few hours.
- a. 10%
 - b. 25%
 - c. 50%
 - d. 75%

ANS: C

27. What psychologist studied forgetting?
- a. Freud
 - b. Skinner
 - c. Ebbinghaus
 - d. Bandura

ANS: C

28. Your friend Desiree wants to encode information more effectively. What advice would you give her?
- a. Unfortunately, there's not much you can do to improve encoding. Instead focus on retrieval processes.
 - b. Use visual tools to encode because research has shown that the visual encoding path is the most efficient one.
 - c. Relax, encoding happens automatically and does not require much effort.
 - d. Try to use at least two sensory approaches such as auditory and visual when encoding information.

ANS: D

29. You are studying for an upcoming test in your biology class. Which method would help you effectively store the key words in your memory?
- a. Rehearsal
 - b. Elaboration
 - c. Organization or chunking
 - d. All of these are effective strategies.

ANS: D

30. You are studying for a quiz in psychology. When you come across the term observational learning, you think about the time that you learned from watching your brother get rewarded for a great report card. This is an example of:
- a. Rehearsal
 - b. Mnemonics
 - c. Dual-encoding
 - d. Elaboration

ANS: D

31. This week, you must learn 15 new terms in your sociology class. To use the technique of chunking, you would need to:
- a. Look for themes or ways to put the terms into different categories.
 - b. Create a word from the first letter of each term you need to learn.
 - c. Write down the terms and their definitions.
 - d. None of these are good examples of chunking.

ANS: A

32. Creating links between concepts via a hierarchical structure is an example of:
- a. Organizing
 - b. Elaboration
 - c. Reviewing
 - d. Looking at pictures while reading

ANS: A

33. Why do students who complete quizzes perform better academically?
- a. Quizzes typically focuses on small amounts of information, forcing students to study in chunks instead of cramming for an exam.
 - b. Performance on quizzes provides important feedback on study habits and can provide students with an opportunity to learn from their mistakes.
 - c. Both of these are good reasons.
 - d. Neither of these are good reasons.

ANS: C

34. When studying the Big Five personality characteristics, you remember the word OCEAN. Each personality characteristic begins with a letter from this word. The memory strategy you are using is called:
- a. Acrostic mnemonic
 - b. Acronym mnemonic
 - c. Sentence mnemonic
 - d. None of these are accurate.

ANS: B

35. To get the most out of class time:
- a. Read the chapter and other assigned readings prior to class.
 - b. Complete all written assignments prior to class.
 - c. Ask questions to clarify and expand on what you have learned.
 - d. All of these are good ways to actively participate in class.

ANS: D

36. Which of the following is a good strategy to use when preparing to take notes in class?
- a. Bringing note taking materials to class.
 - b. Review the syllabus and any course announcements so you will know what is going to be discussed.
 - c. Read the corresponding chapter, taking notes while you read.
 - d. All of these are effective strategies.

ANS: D

37. What document should you look at prior to each class?
- a. Syllabus
 - b. College Catalog
 - c. Curriculum Sheet
 - d. Code of Student Conduct

ANS: A

38. According to Mayer (2009), what type of engagement matters the most?
- a. Behavioral
 - b. Cognitive
 - c. Physical
 - d. All are equally important

ANS: B

39. In addition to reading prior to class, what else should you do to be ready to take in information your professor will give you?
- a. Have a positive mind-set
 - b. Get a good night's sleep
 - c. Eat a nutritious meal
 - d. All of these are important

ANS: D

40. To demonstrate your active involvement in the course, which of the following is the best type of question to ask?
- a. Questions that focus on clarifying concepts learned
 - b. Questions about definitions of terms
 - c. Questions about topics not related to the discussion
 - d. None of these. It is not a good idea to ask questions because it shows you do not understand the material.

ANS: A

41. Which of the following is not an effective way to show your professor that you are interested and involved during class?
- a. Simply sit back and listen. Don't take notes so you can take all of the information in without distractions.
 - b. Ask relevant questions about the lecture material.
 - c. Maintain eye contact with the professor.
 - d. Take notes, writing down key concepts and examples.

ANS: A

42. Which of the following statements about note-taking is supported by research?
- a. It is most effective to use the note-taking system that you are most familiar with so it is often a good idea to continue with your high school note-taking habits.
 - b. Linear notes are the most used and are also the most effective method.
 - c. All note-taking methods are equally effective as long as you have read the material carefully.
 - d. The matrix method is the most effective note-taking method.

ANS: D

43. Your friend Sal has circles all over his notebook with many lines connecting the circles. What note-taking method is he using?
- a. Linear
 - b. Concept map
 - c. Matrix
 - d. Outline

ANS: B

44. What goes at the bottom of the page in Cornell notes?
- a. Questions
 - b. Main points
 - c. A Summary
 - d. All of these belong at the bottom of the page

ANS: C

45. Which of the following statement best describes the Cornell Method of note-taking?
- a. The notes are primarily taken on the left hand side of the page and then examples are listed at the bottom of the page.
 - b. The notes are primarily taken on the left hand side of the page and then examples or important points are listed on the right hand side of the page.
 - c. The notes are primarily taken on the right hand side of the page and then examples are listed at the bottom of the page.
 - d. The notes are primarily taken on the right hand side of the page and then examples or important points are listed on the left hand side of the page and a summary is on the bottom.

ANS: D

46. Which of the following note-taking methods is the least effective?
- a. Linear
 - b. Outline
 - c. Matrix
 - d. Digital Notes

ANS: A

47. If your professor provides you with a copy of the Power Point slides, you should:
- a. Write all the notes in your notebook because the act of taking the notes is important.
 - b. Breathe a sigh of relief, you can simply sit back and listen to the lecture.
 - c. Print out the slides and write down more specific information, especially examples.
 - d. Study only what is printed on the slides because that is what your professor thinks is most important.

ANS: C

48. It is often best to use the matrix note taking method:
- a. Before you attend class
 - b. During class
 - c. After class
 - d. At the end of the semester

ANS: C

49. Which of the following is a benefit of Digital Notes?
- a. Easy to add concepts as needed
 - b. Easy to re-organize
 - c. Access anywhere if you have the technology available
 - d. All of these are advantages

ANS: C

50. Your friend is taking notes by just writing notes without much organization. Which method is he most likely using?
- a. Matrix
 - b. Cornell
 - c. Linear
 - d. Outline

ANS: C

51. Your friend is starting college and wants to take good notes. Which of the following would you NOT recommend?
- a. Write down everything your professor says
 - b. Use an organizational structure
 - c. Combine lecture and reading notes
 - d. Re-package your notes after class

ANS: A

52. If you want to share your notes, what method would work best?
- a. Cornell method
 - b. Evernote
 - c. Matrix method
 - d. Linear method

ANS: B

53. It is important to take notes during all of the following learning activities except:
- a. Lecture
 - b. Video
 - c. Class discussion
 - d. It is important to take notes during all of these learning activities.

ANS: D

54. Your classmate uses bold font, headings, and tables in her notes. Which method is she most likely using?
- a. Cornell
 - b. Matrix
 - c. Digital
 - d. Linear

ANS: C

55. What does your author recommend in terms of how frequently you should review your notes?
- a. Daily
 - b. Three times a week
 - c. Once per week
 - d. A week prior to exams

ANS: A

56. According to the research conducted by Knight and McKelvie (1986), you should:
- a. Review your notes
 - b. Listen during class and don't worry about taking notes because you can always take notes from the book later.
 - c. Take notes, but you don't have to review them after class.
 - d. None of these are accurate statements.

ANS: A

57. According to research conducted by Davis and Hult (1997), it is a good idea to:
- a. Write a brief summary of what you learned after class
 - b. Listen to your professor and take notes after class
 - c. Take notes on chapters but listen during class
 - d. All of these statements are true

ANS: A

58. When you take notes during class, it is important that you:
- a. Write down everything.
 - b. Write down key terms only.
 - c. Capture the key points and examples.
 - d. Write down only the information on the Power Point slides.

ANS: C

59. Some strategies that you may use to determine what to write in your notes includes:
- a. When an instructor gives a clue such as saying "This is important".
 - b. Watching what an instructor writes on the board or spends a good deal of time covering.
 - c. Noting when information about concepts is repeated and several examples are provided.
 - d. All of these are important clues that will help you determine what is important.

ANS: D

60. A _____ approach to learning works best.
- a. Auditory
 - b. Kinesthetic
 - c. Visual
 - d. Multi-sensory

ANS: D

61. What does the research say about using computer based simulation and games to learn?
- a. Students like them but they are not very effective
 - b. Students like them and they have found to be effective
 - c. Simulation exercises are helpful but digital games are not
 - d. Digital games are helpful but simulation exercises are not

ANS: B

62. According to research,
- a. We all learn differently
 - b. There is much support for learning styles
 - c. We are more similar than different than each other in terms of how we learn
 - d. None of these statements are accurate

ANS: C

63. The fact that we can remember pictures more quickly and efficiently than words is referred to as the:
- a. Images are powerful phenomenon
 - b. Incredible images phenomenon
 - c. Testing effect
 - d. Picture superiority effect

ANS: D

64. _____ appear to be most powerful in the learning process.
- a. Visual images
 - b. Sounds
 - c. Words
 - d. All of these are equally important.

ANS: A

65. Formative assessment typically happens _____ learning.
- a. Before or During
 - b. During or After
 - c. Before or After
 - d. Outside the classroom only

ANS: A

66. Your professor says the purpose of the upcoming quiz is to learn. What type of assessment is this quiz?
- a. Formative
 - b. Inquiry based
 - c. Summative
 - d. High stakes

ANS: A

67. A pretest is an example of:
- a. Inquiry assessment
 - b. Formative assessment
 - c. Summative assessment
 - d. All of these statements are correct

ANS: B

68. Summative assessment typically happens:

- a. At the beginning of the semester
- b. A few weeks into the semester
- c. Mid-way through the semester
- d. At the end of the semester

ANS: D

69. A final exam would be an example of:

- a. Inquiry assessment
- b. Formative assessment
- c. Summative assessment
- d. All of these statements are correct

ANS: C

70. The purpose of formative assessment is:

- a. Learning
- b. Showing what you know
- c. Remembering
- d. Note-taking

ANS: A

71. Students tend to overestimate the importance of:

- a. Testing
- b. Organizing
- c. Studying
- d. Reviewing

ANS: D

72. How did the high performers and low performers differ in the Dickinson and O'Connell (1990) study?

- a. High performers spent significantly more time reading and reviewing.
- b. Low performers spent significantly less time studying and reading.
- c. High performers spent significantly more time studying and using the organizing strategy.
- d. Low performers said they studied, but really didn't spend much time doing so.

ANS: C

73. Based on the findings of Dickinson and O'Connell (1990), what advice would you give your friend if she wanted to maximize her study time?

- a. Use a color coding system to organize your materials.
- b. Study with a friend so that you can quiz one another.
- c. Read and review your materials over and over again.
- d. Link concepts to one another and put the information into your own words.

ANS: D

74. High performing students studied approximately ____ more minutes per week engaged in organizing in the Dickinson & O'Connell (1990) study?
- a. 10
 - b. 20
 - c. 30
 - d. 50

ANS: C

75. According to Dickinson & O'Connell (1990), high and low performing students spent similar amounts of time:
- a. Reading
 - b. Reviewing
 - c. Reading and Reviewing
 - d. Reading and Organizing

ANS: C

76. What recommendation would you make to a friend who is coming up with a study plan?
- a. Study all day every Sunday
 - b. Study at night because students are most productive at this time
 - c. Study twice per week
 - d. Study a little each day

ANS: D

77. Which theorist emphasizes the importance of social-cultural aspects to learning?
- a. Vygotsky
 - b. Miller
 - c. Ebbinghaus
 - d. Gardner

ANS: A

78. Jane can't yet write a 10 page paper but she could if she had support. According to Vygotsky, this is referred to as:
- a. Scaffolding
 - b. Distributed practice
 - c. Kinesthetic learning
 - d. Zone of proximal development

ANS: D

79. Your friend asks you to join a study group. You say:
- a. Yes, research has shown that study groups are beneficial
 - b. No thanks, research shows that studying alone works better
 - c. The research on study groups is mixed.
 - d. No thanks, study groups only work if you don't study with friends

ANS: A

80. Do students who are less participatory still benefit from group work?
- a. No, it only benefits extraverts
 - b. No, study groups are not beneficial for anyone
 - c. Yes, even listeners benefit
 - d. The research is not clear on this topic

ANS: C

81. Which of the following is NOT a benefit of study groups?
- a. Increased motivation
 - b. Increased support
 - c. Opportunity to clear up concepts
 - d. Increased time studying

ANS: D

82. You are starting a study group for the first time. Why is it important for students to prepare ahead of time?
- a. Promotes individual accountability
 - b. Increases productivity during group time
 - c. Both are important reasons
 - d. Neither are important reasons

ANS: C

83. The group member who sends out a message about what will transpire during the group would be in the _____ role.
- a. Agenda maker
 - b. Facilitator
 - c. Time keeper
 - d. Quiz creator

ANS: A

84. The group member who makes sure the conversation remains productive is in the _____ role.
- a. Agenda maker
 - b. Facilitator
 - c. Time keeper
 - d. Quiz creator

ANS: B

85. Study groups are effective because:
- a. We are social learners
 - b. They give us an opportunity to teach one another
 - c. Support is increased
 - d. All of these statements are true

ANS: D

SHORT ANSWER

86. Describe encoding, storage, and retrieval processes.

ANS:

The memory process includes encoding, storing, and retrieving memories. Encoding refers to how we get memories into our memory system. Using multiple senses increases the chance that we will encode the information. Storage involves holding onto or saving memories. It consists of working and long term memory. Working memories hold only limited amounts of information for short periods of time while the long term memory can hold an endless supply of memories forever. When information is in working memory, we search our long term memories to assist us with learning new content. The retrieval process involves accessing memories when needed. It will be easier to retrieve memories that have been encoded well.

87. Describe at least 5 short term to long term memory strategies.

ANS:

There are several memory techniques that will assist you with getting a memory from your short term to your long term memory system. For example, you can use a technique called rehearsal which basically involves repeating information over and over again. You can also use elaboration where you attach meaning to the concepts being learned through examples. Looking for connections between concepts and the organizational structure of the information being learned will also help move the memories into the long term system. Some other great techniques are stories and mnemonics (creating acronyms or sentences to help you remember the concepts). Retrieval practice or quizzing is another incredibly powerful strategy.

88. You are having difficulty memorizing key terms for your upcoming test. Based on what you learned about how memory works, describe at least 3 specific memory strategies you can use to improve your academic performance.

ANS:

There are many memory techniques that can help me learn concepts for an upcoming exam. One strategy is to use elaboration. This involves identifying personally meaningful examples of the concepts. Another strategy is organization. This technique involves putting information into my own words and finding connections between concepts. Mnemonics are another great way to improve memory. You can create an acronym, for example, where each letter in a word stands for a concept. ROYGBIV is an example that is used for the colors of the rainbow.

89. What is the testing effect?

ANS:

The testing effect refers to research that demonstrates that learning is significantly increased when quizzing or retrieval practice is used. Unfortunately, students often underestimate the value of this technique. Students often rely on less effective strategies such as rehearsal.

90. What should you do to prepare for class so that you can get the most out of the classroom experience? (learning outcome 1)

ANS:

Being prepared for class will help me get the most out of class activities. To be ready to learn, I should read the chapter or chapters that will be covered and complete all assignments on time. Reviewing the syllabus regularly will help me keep track of

assignments and upcoming topics for class. As I read and complete assignments, I should take notes and jot down questions that I can ask during class.

91. Create a mnemonic for at least 3 note-taking methods.

ANS:

Catch Concepts and Materials. The first letter of each main word stands for a note-taking method (Cornell, Concept Maps, and Matrixes).

92. Compare and contrast the Cornell, concept map, digital notes, outline, apps, and linear note-taking methods.

ANS:

The Cornell, concept map, digital notes, apps, and outline all use organizational structure, but the linear note-taking method does not. Digital notes and apps have the advantage of being electronic for easier re-packaging, modification, and sharing. There is more of a hierarchical structure in the Cornell, outline and concept methods. The concept method is the most visual with connections between concepts easily illustrated.

93. Describe the note-taking method you use. What are the pros and cons of this approach? (learning outcome 6)

ANS:

(Note this is a personal answer). I use the traditional outline method. An advantage of this approach is that my information is organized in a hierarchical fashion with headings and subheadings. It is also easy to do during class. However, it is not always easy to see the connections between concepts.

94. Your friend David tries to write down everything the professor says because he has difficulty differentiating between what is and is not important. What advice would you give him?

ANS:

I would tell David that although it is important to have good notes, it is not necessary to write down everything. Coming to class prepared, having read the material ahead of time, will make it easier to take notes. He should look for instructor clues about what is important. Sometimes the professor will announce that a topic is important, but this is not always the case. Information is typically important if the professor spends a lot of time on a topic, repeats information, speaks more loudly or passionately, or displays the information visually. These clues will help you discern what is most important. You can also meet with the professor after class to confirm that you captured the key points. After class, you can also fill in information as you read the textbook.

95. Why is multi-sensory learning important?

ANS:

Research does not provide evidence for learning styles. Rather, it seems that we are more alike than different in the ways in which we learn. Visual images are particularly important- this is called the picture superiority effect. When we use a multi-sensory approach, it is more likely that information will be encoded and remembered.

96. How did Dickinson and O'Connell define "organizing"? Give specific examples of how you can use this approach in your classes. (learning outcome 2)

ANS:

Dickinson and O'Connell talked about the mental process of organizing. They included the following tasks in their definition:

- Using your own words to describe concepts

- Finding links or connections between concepts
- Finding the hierarchical structure of the concepts
- Creating examples of concepts

As a student, I can take the notes I took during class and create concept maps. These concepts maps can show hierarchical structure as well as links between concepts. When I take notes while reading, I can put the information into my own words and create personally meaningful examples.

97. What the difference between formative and summative assessment? Provide examples of each.

ANS:

Formative assessment typically happens before or during learning and is done with the purpose of learning. Examples include pretests, quizzes, and homework. Summative assessment typically occurs after learning has taken place. Cumulative finals, research papers, or presentations are examples of summative assessment.

98. Should you study alone or with others?

ANS:

Since we are social beings, we learn more when we work with others. Vygotsky emphasized the important role of supporting one another while learning. In a study group, you have the opportunity to teach someone else and this is a very effective learning strategy. Higher levels of motivation and support can also play a role in your success.

99. How can you maximize learning during a study group?

ANS:

Be sure all group members are equally committed to the study group. Everyone should be prepared-tasks should be assigned and completed prior to group meetings. Establishing ground rules and roles will also help groups function productively.

100. What are some examples of roles you could establish within a study group?

ANS:

An agenda maker can identify the topics to be covered and what needs to be done in preparation of the group. The facilitator can manage the meeting, making sure everyone is participating and that the conversation stays on topic. A time keeper can make sure time is being well utilized and the quiz creator can develop questions to discuss in order to assess progress and learning.