

The Brain: Memory and Learning Strategies

In *The Brain: Memory and Learning Strategies*, you will learn about the physical structures of the human brain that create and retain memories—and how to use this information to improve your classroom teaching practice. The more you understand about how people form and retain memories, the more you will be able to help your students learn and use the academic content you are teaching them.

Course Objectives

After completing this course, you should be able to:

Module 1

- Describe the systems, structures, and processes the brain uses to create, store, and retrieve memories.
- Use the brain's reliance on pattern recognition and emotion to strengthen lesson planning.

Module 2

- Explore the structure and function of the explicit memory system.
- Develop strategies to enhance declarative memory of academic content.

Module 3

- Explore the structure and function of the implicit memory system.
- Develop strategies to enhance procedural memory of academic skills.

Module 4

- Compare the structure and uses of working memory and long-term memory.
- Develop strategies for enhancing students' long-term retention of knowledge and skills.

Module 5

- Examine the importance of reflection in strengthening retention and building understanding.
- Create activities that encourage and enhance reflection upon learned content and skills.

Module 6

- Explore the challenges of applying skill and content knowledge in contexts different from those in which they were learned.
- Develop strategies to help students transfer knowledge across subject areas and beyond school.

Course Syllabus

Module 1	How Memory Works Module Welcome <ul style="list-style-type: none">• Reading: What We Remember and Why• Video: Memory, Patterns, and Programs• Reading: <i>Educational Leadership</i>: How Emotions Affect Learning• Video: Memory in Action• Knowledge Check• Extend Your Learning: Human Memory Processes• Application: Strengthening Lesson Planning• Module Review• Post-Module Reflection
Module 2	Explicit Memory Module Welcome <ul style="list-style-type: none">• Video: Ways of Knowing• Reading: Explicit Memory• Video: Varied and Stimulating Inputs• Reading: Is Memorization Underrated?• Reading: <i>Educational Leadership</i>: Brain-Friendly Techniques for Improving Memory• Knowledge Check• Application: Explicit Memory: Strategies for Remembering• Module Review• Post-Module Reflection
Module 3	Implicit Memory Module Welcome

	<ul style="list-style-type: none"> • Video: Internalizing a Sequence • Reading: Implicit Memory • Reading: <i>Educational Leadership</i>: When Practice Makes Perfect...Sense • Reading: <i>Educational Leadership</i>: The Gully in the “Brain Glitch” Theory • Knowledge Check • Application: Implicit Memory: Strategies for Remembering • Module Review • Post-Module Reflection
<p>Module 4</p>	<p>Enhancing Long-Term Memory</p> <p>Module Welcome</p> <ul style="list-style-type: none"> • Reading: Working vs. Long-Term Memory • Video: Mind-Mapping • Video: Engagement and Debate • Online Reading: The Role of Sleep in Memory Formation • Knowledge Check • Extend Your Learning: QA with Neuroscientist Andre Fenton • Application: Strategies for Long-Term Retention • Module Review • Post-Module Reflection
<p>Module 5</p>	<p>The Importance of Reflection</p> <p>Module Welcome</p> <ul style="list-style-type: none"> • Reading: The Importance of Reflection • Video: Reflective Assessment • Reading: <i>Educational Leadership</i>: From Great Texts to Great

	<p>Thinking</p> <ul style="list-style-type: none">• Knowledge Check• Application: Encouraging Reflection• Module Review• Post-Module Reflection
Module 6	<p>Teaching for Transfer</p> <p>Module Welcome</p> <ul style="list-style-type: none">• Video: Jay McTighe Explains• Reading: Teaching for Transfer• Video: Understanding through Application• Online Reading: Grant Wiggins on Transfer• Knowledge Check• Extend Your Learning: from the Delaware Social Studies Educational Project• Application: Making Connections• Module Review• Post-Module Reflection

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