

Unit #5: Cognition

Content Area: **Social Studies**
Course(s): **Psychology I, Psychology II**
Time Period: **Third Marking Period**
Length: **5 Weeks**
Status: **Published**

Unit Overview

Students learn about learning, beginning with two methods of conditioning. Students also consider the type of learning that occurs simply by observing others, and how people remember what they have learned and how they solve problems. In relation to learning students will analyze the function of memory, its strengths and its weaknesses.

STAGE 1- DESIRED RESULTS

The College, Career, and Civic Life (C3) Framework for Social Studies

PSY.9-12.1.D2.Psy.1.9-12	Demonstrate a basic understanding of the scientific methods that are at the core of psychology.
PSY.9-12.1.D2.Psy.2.9-12	Investigate human behavior from biological, cognitive, behavioral, and sociocultural perspectives.
PSY.9-12.1.D2.Psy.3.9-12	Discuss theories, methodologies, and empirical findings necessary to plan, conduct, and especially interpret research results.
PSY.9-12.1.D2.Psy.4.9-12	Adhere to and consider the impact of American Psychological Association and federal guidelines for the ethical treatment of human and nonhuman research participants.
PSY.9-12.1.D2.Psy.5.9-12	Explain how the validity and reliability of observations and measurements relate to data analysis.
PSY.9-12.1.D2.Psy.6.9-12	Collect and analyze data designed to answer a psychological question using basic descriptive and inferential statistics.
PSY.9-12.1.D2.Psy.7.9-12	Explore multicultural and global perspectives that recognize how diversity is important to explaining human behavior.
PSY.9-12.2.D2.Psy.8.9-12	Explain the complexities of human thought and behavior, as well as the factors related to the individual differences among people.
PSY.9-12.2.D2.Psy.9.9-12	Describe biological, psychological, and sociocultural factors that influence individuals' cognition, perception, and behavior.
PSY.9-12.2.D2.Psy.10.9-12	Explain the interaction of biology and experience (i.e., nature and nurture) and its influence on behavior.
PSY.9-12.2.D2.Psy.11.9-12	Identify the role psychological science can play in helping us understand differences in individual cognitive and physical abilities.
PSY.9-12.2.D2.Psy.12.9-12	Explain how social, cultural, gender, and economic factors influence behavior and human interactions in societies around the world.

PSY.9-12.3.D2.Psy.13.9-12	Explain common themes across the field of psychological science, including ethical issues, diversity, developmental issues, and concerns about health and well being.
PSY.9-12.3.D2.Psy.14.9-12	Use information from different psychological sources to generate research questions.
PSY.9-12.3.D2.Psy.15.9-12	Use existing evidence and formulate conclusions about psychological phenomena.
PSY.9-12.3.D2.Psy.16.9-12	Use critical thinking skills to become better consumers of psychological knowledge.
PSY.9-12.3.D2.Psy.17.9-12	Acknowledge the interconnectedness of knowledge in the discipline of psychology.
PSY.9-12.4.D2.Psy.18.9-12	Apply psychological knowledge to their daily lives.
PSY.9-12.4.D2.Psy.19.9-12	Apply the major theoretical approaches in psychology to educational, emotional, political, ethical, motivational, organizational, personal, and social issues.
PSY.9-12.4.D2.Psy.20.9-12	Suggest psychologically based ethical solutions to actual problems including, but not limited to, those encountered in education, business and industry, and the environment.
PSY.9-12.4.D2.Psy.21.9-12	Discuss ways in which the applications of psychological science can address domestic and global issues.
PSY.9-12.4.D2.Psy.22.9-12	Use psychological knowledge to promote healthy lifestyle choices.
PSY.9-12.4.D2.Psy.23.9-12	Apply psychological knowledge to civic engagement.

Essential Questions

- How do we learn?
- What are different types of learning?
- What is intelligence?
- How do we measure intelligence?
- How do reward and punishment work?
- Are psychological disorders a learned behavior?
- How does memory work?
- How does culture influence learning and behavior?

Enduring Understanding

- Encoding of memory
- Storage of memory
- Retrieval of memory
- Basic elements comprising thought
- Obstacles related to thought
- Perspectives on intelligence
- Assessment of intelligence
- Issues in intelligence

Students will know...

I, Key Ideas / Concepts

II. Possible Misunderstandings

III. Key Terms and Content Vocabulary

learning, [L][SEP]associative learning, stimulus, cognitive learning, [L][SEP]classical conditioning, behaviorism, neutral stimulus (NS), unconditioned response (UR), unconditioned stimulus (US), conditioned response (CR), conditioned stimulus (CS), acquisition, higher-order conditioning, extinction, [L][SEP]spontaneous recovery, generalization, discrimination, operant conditioning, law of effect, operant chamber, reinforcement, shaping, positive reinforcement, negative reinforcement, primary reinforcer, conditioned reinforcer, reinforcement schedule, continuous reinforcement, partial (intermittent) reinforcement, fixed-ratio schedule, variable-ratio schedule, fixed-interval schedule, variable-interval schedule, punishment, respondent behavior, operant behavior, cognitive map, latent learning, intrinsic motivation, extrinsic motivation, observational learning, modeling, mirror neurons, prosocial behavior, memory, recall, recognition, relearning, encoding, storage, [L][SEP]retrieval, sensory memory, short-term memory, long-term memory, working memory, [L][SEP]explicit memory, effortful processing, automatic processing, implicit memory, iconic memory, echoic memory, chunking, [L][SEP]mnemonics, spacing effect, testing effect, shallow processing, deep processing, hippocampus, flashbulb memory, long-term potentiation (LTP), priming, mood-congruent memory, serial position effect, anterograde amnesia, retrograde amnesia, proactive interference, retroactive interference, repression, [L][SEP]misinformation effect, [L][SEP]source amnesia, déjà vu, cognition, concept, prototype, algorithm, heuristic, [L][SEP]insight, confirmation bias, mental set, intuition, availability heuristic, overconfidence, belief perseverance, framing, language, phoneme, morpheme, grammar, babbling stage, one-word stage, two-word stage, telegraphic speech, aphasia, Broca's area, Wernicke's area, linguistic determinism

Students will be able to...

- 1.1 Identify factors that influence encoding.
- 1.2 Characterize the difference between shallow (surface) and deep (elaborate) processing.
- 1.3 Discuss strategies for improving the encoding of memory.
- 2.1 Describe the differences between working memory and long-term memory.
- 2.2 Identify and explain biological processes related to how memory is stored.
- 2.3 Discuss types of memory and memory disorders (e.g., amnesias, dementias).
- 2.4 Discuss strategies for improving the storage of memories.

- 3.1 Analyze the importance of retrieval cues in memory.
- 3.2 Explain the role that interference plays in retrieval.
- 3.3 Discuss the factors influencing how memories are retrieved.
- 3.4 Explain how memories can be malleable.
- 3.5 Discuss strategies for improving the retrieval of memories.
- 4.1 Define cognitive processes involved in understanding information.
- 4.2 Define processes involved in problem solving and decision making.
- 4.3 Discuss non-human problem-solving abilities.
- 5.1 Describe obstacles to problem solving.
- 5.2 Describe obstacles to decision making.
- 5.3 Describe obstacles to making good judgments.
- 6.1 Discuss intelligence as a general factor.
- 6.2 Discuss alternative conceptualizations of intelligence.
- 6.3 Describe the extremes of intelligence.
- 7.1 Discuss the history of intelligence testing, including historical use and misuse in the context of fairness.
- 7.2 Identify current methods of assessing human abilities.
- 7.3 Identify measures of and data on reliability and validity for intelligence test scores.
- 8.1 Discuss issues related to the consequences of intelligence testing.
- 8.2 Discuss the influences of biological, cultural, and environmental factors on intelligence.

STAGE 2- EVIDENCE OF LEARNING

Authentic Assessments

Traditional / Benchmark Assessments

- Critical Thinking Do Nows
- Proposal Writing
- Students will act as teachers and write a proposal to their supervisor on ways to enhance the delivery of information to the students to better accomplish long-term storage.
- Research Paper
 - Do American Public Schools adequately test students?
- Homework
- Test/Quizzes

Formative Assessment During Lesson

- 3- Minute Pause
- A-B-C Summaries
- Analogy Prompt
- Choral Response
- Debriefing
- Exit Card / Ticket
- Hand Signals
- Idea Spinner
- Index Card Summaries
- Inside-Outside Circle Discussion (Fishbowl)
- Journal Entry
- Misconception Check
- Observation
- One Minute Essay
- One Word Summary
- Portfolio Check
- Questions & Answers
- Quiz
- Self-Assessment
- Student Conference
- Think-Pair-Share
- Web or Concept Map

STAGE 3- LEARNING PLAN

Instructional Map

- Students will all be administered simulated IQ test.
- Students will receive a shallow lesson on subject material then given a test a number of days later. The test will then be reviewed and students will receive a deeper lesson on the material, exemplifying shallow vs deep processing.
- During a lecture the teacher will deliver a moderately useful, short term, fact mixed into long-term subject appropriate material, during a test review the short term fact will be tested and students will realize the difference between working and long-term memory.
- After being exposed to problem solving and its challenges the students will be challenged to develop a puzzle that is difficult to solve.
- All students will be conditioned using a simple conditioned stimulus (like a sound) and a conditioned response (like requesting paper).
- Memorize a list of random objects to discover the primacy and recency effects.
- Memorize a series of numbers and attempt to memorize as many as possible. Then teach the grouping method with phone numbers and try again.
- Another list of random objects will be given; this time the visualization method will be practiced and mastered in class.
- Students will match unconditioned stimulus to unconditioned response and develop a method to introduce a conditioned stimulus.
- A simple reward and punishment system will be put into practice in the class for the week and effectiveness will be discussed at the end.
- Practice classical conditioning on an animal you own at home. (group work if necessary)
- From September to May students will be required to keep a dream journal.
- Different dream analysis theories will be studied and used to interpret the students' dreams in their journal.
- Students will be paired up and interpret each other's dreams.

Modifications/Differentiation of Instruction

Enter specific modifications for:

ELL

Special Needs

Reaching Level

Challenge

Modification Strategies

- Extended Time
- Frequent Breaks

- Highlighted Text
- Interactive Notebook
- Modified Test
- Oral Directions
- Peer Tutoring
- Preferential Seating
- Re-Direct
- Repeated Drill / Practice
- Shortened Assignments
- Teacher Notes
- Tutorials
- Use of Additional Reference Material
- Use of Audio Resources

Differentiation Strategies

High Preparation Differentiation

- Alternative Assessments
- Choice Boards
- Games and Tournaments
- Group Investigations
- Guided Reading
- Independent Research / Project
- Interest Groups
- Learning Contracts
- Leveled Rubrics
- Literature Circles
- Multiple Intelligence Options
- Multiple Texts
- Personal Agendas
- Project Based Learning (PBL)
- Stations / Centers
- Think-Tac-Toe
- Tiered Activities / Assignments
- Varying Graphic Organizers

Low Preparation Differentiation

- Choice of Book / Activity
- Cubing Activities
- Exploration by Interest (using interest inventories)
- Flexible Grouping
- Goal Setting With Student
- Homework Options
- Jigsaw
- Mini Workshops to Re-teach or Extend Skills
- Open-ended Activities
- Think-Pair-Share by Readiness, Interest, or Learning Style
- Use of Collaboration
- Use of Reading Buddies
- Varied Journal Prompts
- Varied Product Choice
- Varied Supplemental Materials
- Work Alone / Together

Horizontal Integration- Interdisciplinary Connections

Vertical Integration- Discipline Mapping

Additional Materials

- Myers Psychology 9th Edition In Modules
- Various teacher created PowerPoint presentations
- Self recorded lectures with the goal of flipping the classroom
- Pavlov's experiments
- Little Albert Experiment
- Case Study: Phineas Gage
- Case Study: H.M.'s seizure surgery
- Case Study: Washoe Chimpanzee
- Case Study: "The Monster Study" on Stutterers
- Case Study: *Monkey Drug Trials* 1969
- Case Study: Jill Price
- *The Miracle Worker*
- *Brain Games*
- Various Subject Appropriate Case Studies found in multiple publications.

- Current Event APA (and other) publications