

Unit 5 - Cognitive Domain 2017

Content Area: **Social Studies**
Course(s): **Advanced Placement Psychology**
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Unit Overview

The focus of the cognitive domain is mental processes. It begins with memory or the encoding, storage, and retrieval of information. It also examines the basic elements of thought and the obstacles which can affect thinking. The final area within the cognitive domain is the intelligence including investigation of various perspectives on intelligence and its assessment.

Enduring Understandings

- The human mind processes information similar to a computer by taking in information (encoding), keeping it (storage), and getting it back out (retrieval)
- Human thought is comprised of basic elements common to all individuals
- Individuals can be hindered in their problem solving, decision making, and judgments by various obstacles
- Intelligence is difficult to define and there are numerous conceptualizations
- Efforts to assess intelligence have a long history and are ongoing
- Biological, cultural, and environmental factors can all influence intelligence

Essential Questions

- What factors influence the encoding of information?
- How can encoding be improved?
- What are the differences between sensory, short-term, and long-term memories?
- Why is short-term memory also called working memory?
- What biological processes are at work in the storage of memory?
- What are the different types of memory?
- What role do retrieval cues play in memory?
- What causes the forgetting of information and why are memories sometimes malleable?
- What are the basic elements which comprise thought?
- What obstacles can affect problem solving, decision making, and judgments and how can they be overcome?
- Is intelligence one general factor or is it comprised of varying aspects?
- What is the history of intelligence testing and how have these assessments been used or misused?
- What role does validity and reliability play in the assessment of intelligence?
- What are the biological, cultural, and environmental factors which influence intelligence?

Standards/Indicators/Student Learning Objectives (SLOs)

- Students will compare and contrast the information processing of humans to that of a computer
- Students will examine how information is encoded and how this process can be improved upon
- Students will summarize the three-stage storage model, explore how memories are stored in the brain, and differentiate between implicit and explicit memory
- Students will identify the different types of retrieval and assess the impact of cues, context, and state on retrieval
- Students will contrast encoding failure, storage decay, and retrieval failure
- Students will examine misinformation and imagination effects, source amnesia, and the ability to discern true from false memories
- Students will summarize the basic elements of thought and investigate the various methods related to problem solving
- Students will explore the processes and obstacles related to decision making and the formation of judgments
- Students will assess the various conceptualizations of intelligence including whether it is a single factor or composed of multiple facets
- Students will explore the origins of intelligence testing, current assessment methods, and the consequences of these efforts
- Students will explore various issues related to intelligence including stability, extremes, and the biological and environmental influences
- Students will summarize the research on group differences in intelligence and assess whether intelligence assessments are biased

APA Content Standards

SCI.9-12.C.1.1	Encoding of memory
SCI.9-12.C.1.2	Storage of memory
SCI.9-12.C.1.3	Retrieval of memory
SCI.9-12.C.2.1	Basic elements comprising thought
SCI.9-12.C.2.2	Obstacles related to thought
SCI.9-12.C.3.1	Perspectives on intelligence
SCI.9-12.C.3.2	Assessment of intelligence
SCI.9-12.C.3.3	Issues in intelligence

Indicators

SCI.9-12.C.1.1.1	Identify factors that influence encoding
SCI.9-12.C.1.1.2	Characterize the difference between shallow (surface) and deep (elaborate) processing
SCI.9-12.C.1.1.3	Discuss strategies for improving the encoding of memory

SCI.9-12.C.1.2.1	Describe the differences between working memory and long-term memory
SCI.9-12.C.1.2.2	Identify and explain biological processes related to how memory is stored
SCI.9-12.C.1.2.3	Discuss types of memory and memory disorders (e.g., amnesias, dementias)
SCI.9-12.C.1.2.4	Discuss strategies for improving the storage of memories
SCI.9-12.C.1.3.1	Analyze the importance of retrieval cues in memory
SCI.9-12.C.1.3.2	Explain the role that interference plays in retrieval
SCI.9-12.C.1.3.3	Discuss the factors influencing how memories are retrieved
SCI.9-12.C.1.3.4	Explain how memories can be malleable
SCI.9-12.C.1.3.5	Discuss strategies for improving the retrieval of memories
SCI.9-12.C.2.1.1	Define cognitive processes involved in understanding information
SCI.9-12.C.2.1.2	Define processes involved in problem solving and decision making
SCI.9-12.C.2.1.3	Discuss non-human problem-solving abilities
SCI.9-12.C.2.2.1	Describe obstacles to problem solving
SCI.9-12.C.2.2.2	Describe obstacles to decision making
SCI.9-12.C.2.2.3	Describe obstacles to making good judgments
SCI.9-12.C.3.1.1	Discuss intelligence as a general factor
SCI.9-12.C.3.1.2	Discuss alternative conceptualizations of intelligence
SCI.9-12.C.3.1.3	Describe the extremes of intelligence
SCI.9-12.C.3.2.1	Discuss the history of intelligence testing, including historical use and misuse in the context of fairness
SCI.9-12.C.3.2.2	Identify current methods of assessing human abilities
SCI.9-12.C.3.2.3	Identify measures of and data on reliability and validity for intelligence test scores
SCI.9-12.C.3.3.1	Discuss issues related to the consequences of intelligence testing
SCI.9-12.C.3.3.2	Discuss the influences of biological, cultural, and environmental factors on intelligence

Lesson Titles

- Information Processing Model
- Encoding
- Storage
- Retrieval
- Forgetting
- Memory Construction
- Thinking
- Making Decisions and Forming Judgments
- What is Intelligence
- Assessing Intelligence
- Dynamics of Intelligence
- Group Differences and Bias

21st Century Skills and Career Ready Practices

- Global perspectives
- Health Literacy
- Creativity and Innovation
- Information Literacy
- Critical Thinking and Problem Solving
- Media Literacy
- Communication and Collaboration

CAEP.9.2.12.C.3	Identify transferable career skills and design alternate career plans.
CAEP.9.2.12.C.4	Analyze how economic conditions and societal changes influence employment trends and future education.
CAEP.9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.

Inter-Disciplinary Connections

LA.RH.11-12.1	Accurately cite strong and thorough textual evidence, (e.g., via discussion, written response, etc.), to support analysis of primary and secondary sources, connecting insights gained from specific details to develop an understanding of the text as a whole.
LA.RH.11-12.4	Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).
LA.RH.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, qualitatively, as well as in words) in order to address a question or solve a problem.
LA.RST.11-12.2	Determine the central ideas, themes, or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
LA.RST.11-12.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.
LA.RST.11-12.5	Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
LA.WHST.11-12.1.A	Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.
LA.WHST.11-12.1.C	Use transitions (e.g., words, phrases, clauses) to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
LA.WHST.11-12.1.E	Provide a concluding paragraph or section that supports the argument presented.
HPE.2.1.12.A.CS1	Developing and maintaining wellness requires ongoing evaluation of factors impacting health and modifying lifestyle behaviors accordingly.
HPE.2.1.12.C.1	Determine diseases and health conditions that may occur during one's lifespan and identify prevention and treatment strategies.
HPE.2.1.12.C.4	Relate advances in medicine and technology to the diagnosis and treatment of mental illness.

HPE.2.3.12.A.1

Determine the potential risks and benefits of the use of new or experimental medicines and herbal and medicinal supplements.

HPE.2.3.12.B.CS1

There are immediate and long-term consequences of risky behavior associated with substance abuse.

Instructional Strategies, Learning Activities, and Levels of Blooms/DOK

- Teacher Instruction - Building Memory (Blooms: Remember, Understand, Apply)
- Student input from HW - Encoding (Blooms: Understand, Apply, Analyze)
- Effortful Processing examples (Blooms: Apply, Analyze)
- Self-Reference Effect Demonstration (Blooms: Apply, Analyze)
- Question/Answer - Storage (Blooms: Remember, Understand, Apply, Analyze)
- Student input from HW - Retrieval (Blooms: Remember, Understand, Apply)
- Note Outline - Forgetting/Memory Construction (Blooms: Understand, Apply, Analyze)
- False Memory Exercise (Blooms: Apply, Analyze, Evaluate)
- Teacher Instruction - Thinking (Blooms: Remember, Understand, Apply)
- Review and Discussion - Intelligence (summer work) (Blooms: Understand, Apply, Analyze, Evaluate)
- Graphic Organizer - Intelligence Theories (Blooms: Analyze, Evaluate, Create)
- Delsea One
- SWAG

Modifications

ELL Modifications

- Offer resources for specific topics in primary language (Youtube web resources)
- Provide learning objective and skill objective
- Digital translators
- Provide ELL students with multiple literacy strategies
- Focus on domain specific vocabulary and keywords
- Use visuals and other graphic organizers
- Create planned opportunities for interaction between individuals in the classroom: cooperative and collaborative learning, student generated stories based on personal experience
- Tap prior knowledge
- Provide support as ELL students move through all levels of language acquisition: scaffold learning, processing time, as well as other modifications mentioned above
- Utilize explicit learning strategies that are well planned in advance (intentional planning)
- Assess ELL students continuously using formative assessment methods
- 1:1 testing
- Repeat, reword, clarify
- Intentional scheduling/grouping with student/teacher who speaks the same language if possible

- Offer alternate/or modify assessments
- Be flexible with time frames and deadlines
- Delsea One
- SWAG

IEP & 504 Modifications

Testing modifications:

- word banks, multiple choice, matching questions help when possible
- images/graphics should include a synopsis
- rewording questions so that there are not higher level vocabulary within the question (you are testing for understanding of the content not the ability to understand the question)
- less questions overall if the student takes so much extra time that they are going into future days (missing instruction) to take the test
- less questions per page (so not visually overwhelming) divide into smaller sections or limit
- offer paraphrasing of primary sources... if the student is expected to be testing on understanding that paragraph or quote to answer future questions
- read test aloud
- test in small groups
- projects can be submitted digitally or paper
- offer options for type of project relating to content

Instructional modifications/accommodations:

- breaking larger assignments/projects into shorter tasks with clear deadlines for each section
- students who prefer to work individually will be permitted to
- oral presentations to small groups or teacher only
- preferential seating
- teaching the main ideas/concepts (limiting not needed details) to be taught and repeating them in several different ways over several different days (goal is 7 different ways same concept for students with learning disabilities)
- providing students with content vocabulary prior to teaching a lesson including that vocabulary (pre-teaching); varied instruction: Quizlet
- providing study guides that don't lead the student to study too much extraneous information (less unnecessary details)/scaffolded study guides; completed study guides can be offered by teacher; digital review such as kahoots can also be used.
- modeling and showing lots of examples
- allowing co-teaching with general education and special education teachers/aides in the same classroom so that the special education teacher can re-teach students with special needs in a different way in a smaller group (pulled to the side)
- if not in a co-teaching setting allowing time in the schedule for a special education teacher to consult with general education teachers on what specifically can be modified or how to paraphrase things in a different way specific to that lesson
- allow assignments to be completed in Organizational Management class

- providing paraphrased or modified reading materials at the student's reading level for science and social studies and elective classes
- reducing homework length to just those most important for review
- allow student to edit with teacher comments the first attempt at a graded written assignment
- use manipulatives where possible
- use visuals, graphic organizers, and real objects when possible
- tap prior knowledge
- repeat reword and clarify
- repetition of key concepts through varied methods
- Delsea One
- SWAG

G&T Modifications

- jigsaw grouping
- generating and testing hypotheses
- annotating/summarizing
- encourage students to explore concepts in depth and encourage independent studies or investigations.
- determine where students' interests lie and capitalize on their inquisitiveness
- employ differentiated curriculum to keep interest high
- ask students' higher level questions that require students to look into causes, experiences, and facts to draw a conclusion or make connections to other areas of learning.
- Utilize thematic learning: encourage students to make connections across the curriculum/linkage.
- encourage students to make transformations- use a common task or item in a different way
- different test items
- self-evaluation of writing with teacher or student-generated rubrics
- creation of technology-based assessments to address the higher levels of Bloom's
- close reading: texts, primary sources, etc.
- student led/directed discussions
- inquiry based learning
- modeling
- Delsea One
- SWAG

At Risk Modifications

- Verbal reminders during class to keep student on task
- Use gradebook/Classroom to highlight missed work
- Allow extra time for completion of work as needed

- Meetings during Delsea One
- Calls to parents
- Contact guidance counselors/SAC
- Meeting with other teachers/coaches of student to develop a plan for improvement
- Contact administration
- Delsea One
- SWAG

Formative Assessment

Warm-Ups:

- STM Demonstration
- Question - Studying strategies
- WWI IQ Test

Anticipatory Set:

- Memory Exercise - massed vs. distributed
- Question - first memory
- HW Review - Forgetting/Memory construction
- Encoding failure - penny example
- False Memory Exercise

Closure:

- The angry rioter...
- Self-Reference Effect Demonstration
- Forget 308
- Improving Memory strategies
- Whip Around
- Exit Ticket
- Random Sampling
- Homework Assignments
- Classnote revisions

Summative Assessment

- Chapter Test - Memory
- Online Quiz - Thinking

- Open-Note Quiz - Intelligence (summer work)
- Marking Period Assessment - aligned to unit

Benchmark (Assessments):

Skills-based assessment
Reading responses
Writing responses

Alternative Assessment(s):

Performance tasks
Project-based assignments
Problem-based assignments
Presentations
Reflective pieces
Concept maps
Case-based scenarios
Portfolios

Resources & Materials

- Psychology for AP, 2e - Myers
- Textbook companion website
- Textbook Test Generator
- Dictionary of Psychology, Reber
- Barron's AP Psychology
- Brain Games - Misinformation Effect
- Crash Course - Memory
- Quizlet - Memory
- Online Quiz - Thinking
- Crash Course - Intelligence
- Inside Out DVD - Intelligence
- Google Classroom
- Google Docs - aligned to unit
- Google Forms - aligned to unit

Technology

- Crash Course - Memory - <https://www.youtube.com/watch?v=HVWbrNls-Kw&index=14&list=PL8dPuuaLjXtOPRKzVLY0jJY-uHOH9KVU6>
- Brain Games - Misinformation Effect - <https://www.youtube.com/watch?v=qQ-96BLaKYQ>
- Quizlet - Memory - <https://quizlet.com/51038502/unit-7a-myers-for-ap-2e-flash-cards/>
- Online Quiz - Thinking - https://docs.google.com/forms/d/1B0mZ6DtPi5cZ_UVBk2SiBRYD1cbvgqdE2uddNShw8Xs/edit
- Crash Course - Intelligence - <https://www.youtube.com/watch?v=9xTz3Qjclol&index=23&list=PL8dPuuaLjXtOPRKzVLY0jJY-uHOH9KVU6>

TECH.8.1.12.A.CS2

Select and use applications effectively and productively.

TECH.8.1.12.B.2

Apply previous content knowledge by creating and piloting a digital learning game or tutorial.

TECH.8.1.12.E.CS3

Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.