Unit 1: History and Research Methods

Content Area: **Social Studies**
Course(s):
Time Period: **Marking Period 1**
Length: **4 weeks**
Status: **Published**

Summary

Students in the Introduction to Psychology course study behavior and mental processes in both humans and animals. Beginning with a firm understanding of the pillars of psychology and the importance of the scientific method and research processes, students explore various psychological topics, including behavioral biology, learning theory, personality theories, cognition, and clinical psychology. The semester course ends with the timely mental health and mindfulness topic to reduce stigma, while shedding light on common misconceptions to bring about awareness in the brave spaces of our classroom community and beyond.

This unit is part of the larger aforementioned course sequence and specifically focuses on how psychology developed into a scientific field, where students will learn that questions about behavior are answered with scientific approaches to inquiry. By the end of this unit, students will be able to describe the scientific method and its far reaching role in psychology across a variety of different specific areas.

Standards

Alignment with Standards (NJSLS):

Social Studies - New Jersey Student Learning Standards - 2020

6.1.12.HistorySE.14.a: Explore the various ways women, racial and ethnic minorities, the LGBTQ community, and individuals with disabilities have contributed to the American economy, politics and society.

6.2.12.HistoryUP.2.a: Analyze the impact of new intellectual, philosophical, and scientific ideas on how humans viewed themselves and how they viewed their physical and spiritual worlds.

6.2.12.CivicsPI.6.a: Use historic case studies or a current event to assess the effectiveness of multinational organizations in attempting to solve global issues.

6.2.12.EconET.3.a: Determine how, and the extent to which, scientific and technological changes, transportation, and new forms of energy brought about social, economic, and cultural changes in the world.

6.3.12.EconGE.1: Participate in a simulated meeting (e.g., President's Council, World Bank, International Monetary Fund (IMF), research evidence from multiple sources about an economic problem (e.g., inflation, unemployment, deficit), and develop a plan of action.

RI.11-12.1. Accurately cite strong and thorough textual evidence, (e.g., via discussion, written response, etc.), to support analysis of what the text says explicitly as well as inferentially, including determining where the text leaves matters uncertain.

RI.11-12.2. Determine two or more central ideas of a text, and analyze their development and how they interact to provide a complex analysis; provide an objective summary of the text.

RI.11-12.3. Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.

NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

NJSLSA.W2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

NJSLSA.W5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

APA Standards for High School Psychology Curricula- RESEARCH CONTENT STANDARD 1

The nature of psychological science

- 1.1. Define psychology as a discipline and identify its goals as a science
- 1.2. Differentiate scientific and non-scientific approaches to knowledge
- 1.3. Explain the value of both basic and applied psychological research with human and nonhuman animals
- 1.4. Identify careers individuals can pursue in psychological science
- 1.5. Identify ways individuals can use psychological science in any career

APA Standards for High School Psychology Curricula - RESEARCH CONTENT STANDARD 2

Research methods and measurements used to study behavior and mental processes

- 2.1. Describe research methods psychological scientists use
- 2.2. Compare and contrast quantitative and qualitative research methods used by psychological scientists
- 2.3. Describe the importance of representative samples in psychological research and the need for replication
- 2.4. Explain how and why psychologists use non-human animals in research
- 2.5. Explain the meaning of validity and reliability of observations and measurements

APA Standards for High School Psychology Curricula - RESEARCH CONTENT STANDARD 3

Ethical issues in research with human and non-human animals

- 3.1. Identify ethical requirements for research with human participants and non-human animals
- 3.2. Explain why researchers need to adhere to an ethics review process

APA Standards for High School Psychology Curricula - RESEARCH CONTENT STANDARD 4 Basic concepts of data analysis

- 4.1. Define descriptive statistics and explain how they are used by psychological scientists
- 4.2. Draw appropriate conclusions from correlational and experimental designs
- 4.3. Interpret visual representations of data

This unit further reflects the goals of the Holocaust Education mandate where students are able to identify and analyze applicable theories concerning human nature and behavior; understand that genocide is a consequence of prejudice and discrimination; understand that issues of moral dilemma and conscience have a profound impact on life; and understand the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

This unit also reflects the goals of the Department of Education and the Amistad Commission including the infusion of the history of Africans and African-Americans into the curriculum in order to provide an accurate, complete, and inclusive history regarding the importance of of African-Americans to the growth and development of American society in a global context.

This unit is aligned to the English Language Development (ELD) standards for kindergarten through grade 12 since multilingual learners develop content and language concurrently, with academic content in a classroom where the language of instruction is English. As a result, language learning and language as a means for learning academic content are interchangeable. The following ELD standards are relevant for this unit and course of study:

- Standard 1: Language for Social and Instructional Purposes: English language learners communicate for social and instructional purposes within the school setting.
- Standard 5: Language for Social Studies: English language learners communicate information, ideas and concepts necessary for academic success in the content area of Social Studies.

The standards in this unit reflect a developmental progression across grade levels and make interdisciplinary connections across content areas including the humanities, technology, career readiness, cultural awareness, and global citizenship.

Essential Questions and Enduring Understandings

Essential Questions:

- How is Psychology a science?
- To what extent is Psychology a value-laden field?
- How do ethical guidelines impact psychological research?

Enduring Understandings:

- There are many research tools available in the psychologist's toolbox. An essential step in good research design is selecting the correct tool for the task.
- Psychological research generates data, and statistical analysis allows us to make sense of the data.

Objectives

Students will know:

- The nature of psychology as a science, with approaches rooted in the scientific method.
- Research methods and measurements are used to study behavior and mental processes.

- Major ethical issues in research with human and non-human animals exist, and must be considered prior to beginning any inquiry in the field.
- Basic concepts of data analysis and how it is applicable to advancements in the field of psychology
- Descriptive research and correlational research allow psychologists to describe and predict behaviors and mental processes, but only experimental research allows for explanation and control.
- Both nature and nurture play critical roles in determining human behavior.

Students will be skilled at:

- Recognizing how philosophical and psychological perspectives have shaped the development of psychological thought.
- Comparing and contrasting the different domains of Psychology.
- Differentiating theoretical approaches in explaining behavior.
- Recognizing the strengths and limitations of applying psychological theories to explain behavior.
- Evaluating how major historical unfoldings influenced subsequent events in the field of Psychology.
- Differentiating types of research, both quantitative and qualitative, and evaluate the strengths and weaknesses of each.
- Describing how research design drives the reasonable conclusions that can bedrawn (e.g., experiments are useful for determining cause and effect; the use ofexperimental control reduces alternative explanations).
- Examining independent, dependent, confounding, and control variables in authentic contexts
- Predicting the validity of behavioral explanations based on the quality of research design and related alignment (e.g., confounding variables limit confidence in research conclusions)
- Applying relevant theories and perspectives from the unit in authentic contexts
- Analyzing the design and conclusions of relevant studies from the unit
- Discussing the value of reliance on operational definitions and measurements in behavioral research.

Learning Plan

This unit plan includes but is not limited to the following strategies:

Operational Definition Assignment: Students are given the task to, in groups, provide an operational

definition of something they take for granted (ie. walking, running, breathing, talking, etc.) This gives students an appreciation of what it is like for a researcher to define something such as "aggressive" in experimentation.

A Tasty Sample(r): Teaching About Sampling Using M&M's: This tasty demonstration exposes students to the concept of sampling and gives them a real-life sampling problem. Each student receives a small package of plain M&M's and quantifies the sample by color. Students use these data to hypothesize the population's color distribution. By pooling samples, students achieve closer approximations of the population distribution. (See: Activities Handbook for the Teaching of Psychology)

Do Snacks Improve Memory? Errors in Methodology: A class demonstration to teach about the need for careful design in research approaches. (See: Activity 1.3)

Counting Fidgets: Teaching the Complexity of Naturalistic Observation: Students will serve as observers where they record fidgeting behavior and outline a simple classroom technique that successfully conveys some of the complexities of naturalistic observation. (See: Activities Handbook for the Teaching of Psychology).

Pattern Recognition Exercise: Students read examples and judge whether the procedure described would be considered a correlational (noninterfering) approach or an experimental (interfering) approach. (See: Activity 3.1)

Research Ethics: Students imagine they have been assigned the task of sitting on an Institutional review board (IRB) and have been asked to consider research proposals. Each proposal involves ethical issues. (See: Activity 4.1)

Does Random Really Look Random: Students will generate a hypothetical series of random coin flips and compare the results to a real series of coin flips. (See: Randomness)

Everyone Knows What a Smile Is, Right?: Students will participate in an exercise that requires them to identify which students in yearbook photos are smiling. They will then compare their results and recognize the need to develop an operational definition of "smiling." (See: Promoting Psychological Science: A Compendium of Laboratory Exercises For Teachers of High School Psychology, p.328)

Fake News In The World of Psychology: This lab allows all students to practice identifying errors in news stories related to psychological phenomena by employing critical thinking. (See: Promoting Psychological Science: A Compendium of Laboratory Exercises For Teachers of High School Psychology, p. 17)

Estimating Distances: More Psychology Than You Think!: This lab allows students to see the power of manipulations on independent and dependent variables in research by estimating distances from a balcony or other location of height (See: Psych Experiments, p. 29)

Three Exercises on the Ethics of Research on Humans: Students evaluate the ethics of various attempts to research human behavioral phenomena (See: Favorite Activities for the Teaching of Psychology.)

Hypnotic Suggestibility: Students examine individual differences that are controlled through random assignment through the curiosity of hypnosis. (See: Lab)

Evaluation of Advertising Claims: Students are asked to review advertisements in groups to develop experimental methods to test the claim made by the ad. (See: Shenker, Goss, Bernstein Instructor's Resource Manual Psychology, 4th ed.)

Pop Culture Character Perspectives: To practice applying the six different approaches of psychology to real-life issues, students choose a favorite or a well known pop culture character and attempt to explain these behaviors from the point of view of each major psychological perspective.

Naturalistic Observation Exercise: Choose a setting and time for an observation. Students spend approximately fifteen minutes watching behavior and making a detailed record of the subject(s), gathering data targeted by the hypothesis.

Elephants on Acid: Students will summarize twenty bizarre experiments from "The Top 20 Most Bizarre Experiments of all Time," and engage in conversations with a small group to select the top five worst experiments by evaluating how the experiments violated ethical guidelines that psychologists must meet when conducting research with human and non-human animals.

Note: Other strategies to address the learning objectives may include, but are not limited to direct instruction, primary and secondary source analysis (including annotations, critique, questioning and close reading strategies), self and peer review, think-pair-share activities, creating visual representations, debates, film analysis, Socratic seminars, small group discussions, simulations, mapping activities, jigsaw activities, gallery walks, web quests, and/or inquiry or problem based learning projects.

Assessments

When taking a Social Studies course, students demonstrate differentiated proficiency according to their ability to answer the essential questions through formative and summative assessments. Many of the performance tasks below can be implemented as formative and/or summative assessments. As teachers strive for students to demonstrate proficiency, they will need to create additional or alternative assessments based on demonstration or absence of skill.

Formative Assessments:

- Do Nows/ Exit Slips
- Class Activities
- Operational Definition assignment
- Naturalistic Observation assignment
- Research Ethics Proposal
- Three Exercises on the Ethics of Research on Humans assignment
- Evaluation of Advertising Claims
- Class Jeopardy Review

Summative Assessments:

- Unit test including multiple choice and analytical free response questions
- Research Methods Analysis Question (RAQ) Responses
- Concept Application free response questions
- Lab Reports: Students, after completing an exercise experiencing research in Psychology, complete a write up in a standardized laboratory format.

Alternative Assessments:

- Notebook Check: Students submit portions of class notebook/notes guide at conclusion of unit to promote organizational skills
- Careers Presentation: In groups, students research a specific career in Psychology and present the steps to achieving it to the class.

Materials

The design of this course allows for the integration of a variety of instructional, supplemental, and intervention materials that support student learners at all levels in the school and home environments. Associated web content and media sources are infused into the unit as applicable and available In addition to the materials below, the following link connects to district approved textbooks and resources utilized in this course: Core Book List.

The following are approved resources that teachers can include to further unit related objectives:

Additional recommended hard copy resource texts for instructors:

Forty Studies that Changed Psychology: (Roger R. Hock, 7th Edition)

Activities Handbook for the Teaching of Psychology (Ludy T. Benjamin, all volumes)

Handbook of Activities and Demonstrations in the Teaching of Psychology (Ware & Johnson, all volumes)

The Critical Thinking Companion for Introductory Psychology (Halonen, 2nd Ed.).

50 great Myths of Popular Psychology: Shattering widespread misconceptions about human behavior

Instructional Resources:

Discovering Psychology Telecourse w/Phil Zimbardo- “Past, Present, and Promise” and “Understanding Research” units via Annenberg: Annenberg Learner

The Boy Who Lived Before - documentary (BBC) Link

Inside Out- Introductory Psychology Video Series Link

Three Identical Strangers Documentary (fee to stream) Link

Worth Publishers Psychology Teachers Video Toolkit series Link

Scientific American Frontiers Introductory Psychology Series Link

Promoting Psychological Science: A Compendium of Laboratory Exercises for Teachers of

High School Psychology: Link

A Guide for Beginning Teachers of Psychology: Link

CROW Psychology Teaching Resources: Link

APA Videos for Classroom Use: Link

Elephants on Acid Activity Plan: Plan

Performance Expectation Activity Plan: Plan

TOPSS Research Methods Unit Plan: Plan

TOPSS 2 Day Activity Plan: Plan

Facebook Experiment Article: Article

Facebook/Grades Correlation Article: Article

Facebook Grades 2nd Article: Article

Psychology/Education Resource and Pedagogy Articles: Link

Any additional resources that are not included in this list will be presented to and reviewed by the supervisor before being included in lesson plans. This ensures resources are reviewed and vetted for relevance and appropriateness prior to implementation.