

Psychology Companion Document for the C3 Framework

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Introduction to the Disciplinary Concepts and Skills of Psychology

As the scientific study of behavior and mental processes, psychology examines all aspects of the human experience. Many of society's challenging issues involve human behavior, such as environmental change and the problems of violence, bullying, prejudice, and discrimination. Psychology contributes to the understanding of these issues, and promotes improvement in health and wellbeing. Psychological literacy is a foundation for civic engagement and is necessary for citizens to make informed decisions about their daily lives.

Psychology incorporates a variety of tools and knowledge to further the understanding of behavior and mental processes. Scientific inquiry and research methods are at the center of the discipline. Psychology promotes the measurement and explication of behavior in a variety of levels of study, ranging from genetic and brain-based influences on behavior to cultural and social influences. Psychological knowledge enhances our understanding of human development, emotion and motivation, cognition, learning processes, perceptual systems and sociocultural interactions. Psychology prepares students to enter the workforce or college by promoting skills such as critical thinking, problem solving, and teamwork. Students benefit from learning and applying psychological perspectives on personal and contemporary issues and learn the rules of

evidence and theoretical frameworks of the discipline. The *National Standards for High School Psychology Curricula* offers learning benchmarks for the high school psychology course (APA, 2011).²

Psychological Perspectives and Methods of Inquiry³

Psychological knowledge is based on scientific methodology, the systematic, empirically-based investigation of phenomena through observations and measurements. Psychologists use scientific methods to establish knowledge and explain phenomena, and employ a variety of methods to observe and measure behavior. Broad psychological perspectives describe ways in which psychologists classify their ideas, and are employed to understand behavior and mental processes.

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² The references for citations in this Appendix are listed on the final page of the Appendix.

³ Several of the indicators across all four anchor concepts come from the *Guidelines for Preparing High School Psychology Teachers: Course-Based and Standards-Based Approaches* (APA, 2012) and the *National Standards for High School Psychology Curricula* (APA, 2011).

Psychology offers a unique way of thinking and organizing knowledge and provides students with tools and concepts that can prepare them for college, career, and civic life. The indicators that follow align with Dimension 2 of the C3 Framework (Applying Disciplinary Concepts and Tools), provide a conceptual set of skills related to psychological knowledge, and serve as a frame for organizing curricular content in psychology.

College, Career, and Civic ready students:

- **D2.Psy.1.9-12.** Demonstrate a basic understanding of the scientific methods that are at the core of psychology.
- **D2.Psy.2.9-12.** Investigate human behavior from biological, cognitive, behavioral, and sociocultural perspectives.
- **D2.Psy.3.9-12.** Discuss theories, methodologies, and empirical findings necessary to plan, conduct, and especially interpret research results.
- **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.
- **D2.Psy.5.9-12.** Explain how the validity and reliability of observations and measurements relate to data analysis.
- **D2.Psy.6.9-12.** Collect and analyze data designed to answer a psychological question using basic descriptive and inferential statistics.
- **D2.Psy.7.9-12.** Explore multicultural and global perspectives that recognize how diversity is important to explaining human behavior.

Influences on Thought and Behavior

There is no simple answer to the question, “What determines or constrains human behavior?” Psychologists have long considered the extent to which human behavior is malleable and the degree to which it varies between people and populations. Psychologists examine genetic predispositions to behavioral patterns, but

human behavior is also influenced by the environment. Research has shown that biological, psychological, and sociocultural factors play important roles in shaping the way we see and react to the world around us.

College, Career, and Civic ready students:

- **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.
- **D2.Psy.9.9-12.** Describe biological, psychological, and sociocultural factors that influence individuals’ cognition, perception, and behavior.
- **D2.Psy.10.9-12.** Explain the interaction of biology and experience (i.e., nature and nurture) and its influence on behavior.
- **D2.Psy.11.9-12.** Identify the role psychological science can play in helping us understand differences in individual cognitive and physical abilities.
- **D2.Psy.12.9-12.** Explain how social, cultural, gender, and economic factors influence behavior and human interactions in societies around the world.

Critical Thinking: Themes, Sources, and Evidence

Psychological inquiry is based on a variety of sources and materials that students can read and analyze. The study of psychology brings together common themes that include ethics, diversity, scientific attitudes, and skills (e.g., critical thinking, problem solving). Informed by these themes and supported by sources, students can make evidence-based conclusions which in turn can lead to further questions and answers.

College, Career, and Civic ready students:

- **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 wellbeing.
- **D2.Psy.14.9-12.** Use information from different psychological sources to generate research questions.

- **D2.Psy.15.9-12.** Use existing evidence and formulate conclusions about psychological phenomena.
- **D2.Psy.16.9-12.** Use critical thinking skills to become better consumers of psychological knowledge.
- **D2.Psy.17.9-12.** Acknowledge the interconnectedness of knowledge in the discipline of psychology.

Applications of Psychological Knowledge

Psychological knowledge can be useful in addressing a wide array of issues, from individual to global levels. In order to understand behavior and mental processes, students should apply psychological knowledge to the world around them. Psychological knowledge directly relates to everyday and civic life, and its application can benefit society and improve people's lives.

College, Career, and Civic ready students:

- **D2.Psy.18.9-12.** Apply psychological knowledge to their daily lives.
- **D2.Psy.19.9-12.** Apply the major theoretical approaches in psychology to educational, emotional, political, ethical, motivational, organizational, personal, and social issues.
- **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.
- **D2.Psy.21.9-12.** Discuss ways in which the applications of psychological science can address domestic and global issues.
- **D2.Psy.22.9-12.** Use psychological knowledge to promote healthy lifestyle choices.
- **D2.Psy.23.9-12.** Apply psychological knowledge to civic engagement.

Brief Overview of Connections between Psychology and the English Language Arts/Literacy Common Core Standards Connections with the College and Career Readiness (CCR) Anchor Standards. Students in

psychology develop and use a wide range of skills endorsed through the Common Core Anchor Standards. Students in psychology must develop questions and plan inquiries as they learn about and apply the various psychological theories and findings. Students should be able to propose, plan, and conduct simple research projects and/or read, discuss, and critique research findings in ways that apply their acquired content knowledge and hone the skills discussed in the Anchor Standards in Reading, Writing, Speaking and Listening, and Language. Students who complete such projects or assignments successfully demonstrate mastery of the skills in each dimension, thus fulfilling the goals for college and career readiness.

More detailed curricular recommendations are found in the *National Standards for High School Psychology Curricula* (APA, 2011). Although psychological science can be found in science and social studies lessons for students in grades K-8, the first formal introduction to psychological science often occurs during grades 9-12. Learning the theories, methodologies, and practices of psychological science provides students with knowledge and skills they need to think critically about research, address issues using the scientific method, and understand relationships among variables in given circumstances.

C3 Framework Disciplinary Inquiry Matrix: Psychology

In Appendix A, the Disciplinary Inquiry Matrix articulates how each of the four Dimensions of the C3 Framework build upon one another through the use of a content-specific example: *How bad was the Great Recession?* The Disciplinary Inquiry Matrix describes what *experts* think and do. It is a four-part target example to which *students* should aspire. The matrix develops through the construction of disciplinary compelling and supporting questions (Dimension 1); the data sources, key concepts, and key strategies specific to each discipline (Dimension 2); the development of evidence-based claims (Dimension 3); and the means of expression (Dimension 4). In the table on page 72, the Great Recession is examined through the disciplinary lens of psychology. The examples in the boxes are illustrative rather than exhaustive.

WAYS OF KNOWING	PSYCHOLOGY PSYCHOLOGISTS SAY...
DIMENSION 1	
POSSIBLE DISCIPLINARY COMPELLING AND SUPPORTING QUESTIONS	How did citizens behave during the recession? Did stress levels increase, decrease or stay the same? Was there adequate mental health support available? How does an individual's social status affect his or her perception of the effects a recession has on family, work and other societal institutions? Do individuals have prejudices that affect their perception of "who or what is to blame" for economic crises? How do attributions of responsibility develop and affect people's behaviors during a recession?
DIMENSION 2	
DATA SOURCES NEEDED TO ADDRESS QUESTIONS	Statistics on rates of anxiety, stress, and depression; the number of individuals seeking mental health counseling. Surveys, focus groups, reports, and interviews on how different populations and/or ethnic groups were affected by unemployment, and how the economic climate affected older adults. Experiments testing the effectiveness of treatments for mental illness or causes of other psychological phenomena.
KEY CONCEPTS AND CONCEPTUAL UNDERSTANDINGS NECESSARY TO ADDRESS QUESTIONS (non-exclusive questions)	Biological, cognitive, and psychological mechanisms of behavior and mental processes; theories of social learning and social cognition; theories of stress management and health promotion; theories of personality, motivation, emotion, and learning; theories of life span development; evidence (to make claims).
KEY STRATEGIES AND SKILLS NEEDED TO ADDRESS QUESTIONS (non-exclusive examples)	Ability to read and interpret statistics critically, including the ability to interpret qualitative and quantitative data; ability to use data to find causal and correlational connections between and among variables; critical thinking. Ability to apply psychological knowledge to issues faced by local communities and encourage civic engagement.
DIMENSION 3	
EVIDENCE-BASED CLAIMS	Statistical analyses and theories of human behavior point toward justifying claims; these should be judged within the community of peers.
DIMENSION 4	
FORMS OF COMMUNICATION AND ACTION (ILLUSTRATIVE EXAMPLES)	Books and journal articles, newspapers and television, websites, webinars, press releases, professional presentations.

REFERENCES

American Psychological Association. (2011). *National standards for high school psychology curricula*. Retrieved from <http://www.apa.org/education/k12/national-standards.aspx>

American Psychological Association. (2012). *Guidelines for preparing high school psychology teachers: Course-based and standards-based approaches*. Retrieved from <http://www.apa.org/education/k12/teaching-guidelines.aspx>