

National Standards
FOR HIGH SCHOOL **PSYCHOLOGY** CURRICULA



AMERICAN
PSYCHOLOGICAL
ASSOCIATION

National Standards for High School Psychology Curricula Working Group (2007-2011)

Amy C. Fineburg, PhD, Chair, Oak Mountain High School, Birmingham, AL

James E. Freeman, PhD, University of Virginia, Charlottesville, VA

David G. Myers, PhD, Hope College, Holland, MI

Debra E. Park, Rutgers University, Camden, NJ; West Deptford High School, Westville, NJ (retired)

Hilary Rosenthal, Glenbrook South High School, Glenview, IL

National Standards for High School Psychology Curricula Working Group (2005)

Kristin H. Whitlock, Chair, Viewmont High School, Bountiful, UT

Amy C. Fineburg, Spain Park High School, Hoover, AL

James E. Freeman, PhD, University of Virginia, Charlottesville, VA

Marie T. Smith, PhD, Thomas S. Wootton High School, Rockville, MD

National Standards for High School Psychology Curricula Working Group (1999-2004)

Laura L. Maitland, Chair, Mephram High School, Bellmore, NY

Rob McEntarffer, Lincoln Southeast High School, Lincoln, NE

Kenneth A. Weaver, PhD, Emporia State University, Emporia, KS

Kristin H. Whitlock, Viewmont High School, Bountiful, UT

Task Force Members and Standards Authors (1994-1999)

Laura L. Maitland, Chair, Mephram High School, Bellmore, NY

Ruth M. Anderson, Clovis West High School, Clovis, CA

Charles T. Blair-Broeker, Cedar Falls High School, Cedar Falls, IA

Carol J. Dean, EdD, Lake Park High School, Roselle, IL

Randal M. Ernst, Lincoln High School, Lincoln, NE

Jane S. Halonen, PhD, James Madison University, Harrisonburg, VA

Bates Mandel, Ben Franklin High School, Philadelphia, PA

Wilbert J. McKeachie, PhD, University of Michigan, Ann Arbor, MI

Marilyn J. Reedy, Alverno College, Milwaukee, WI

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PREFACE

WHY LEARN ABOUT PSYCHOLOGY IN HIGH SCHOOL?



Most of society's challenging problems—including crime, poverty, prejudice, violence, and environmental sustainability—are related to human attitudes, values, and behavior.

Psychological science, in collaboration with other scientific fields, informs our understanding of these problems and their solutions. Considering that psychology has the potential to benefit society and improve people's lives, an introduction to psychological science merits inclusion in the high school curriculum. Students may apply knowledge gained from an introductory psychology course to their daily lives.

Psychology is defined as the scientific study of the mind and behavior. In a high school psychology course, students are introduced to the scientific method and the core ideas and theories of psychology. As a result, students gain an understanding of the complexities and diversity of human thought and behavior.

The number of students taking psychology courses in high school is growing. Data from the College Board indicate that 27% of all graduating high school students in 2010 who took the SAT took psychology during high school (College Board Research & Development, 2011). From the modest beginning of the Advanced Placement (AP) Psychology exam in 1992, taken by roughly 3,900 students, the number of students taking the AP exam has soared. In 2011, nearly 199,000 students took the AP Psychology exam. Other students have completed the AP class without taking the national exam, studied International Baccalaureate (IB) psychology, or taken regular high school psychology classes not for college credit. In the spring of 2011, there were more than 16,000 IB Psychology exams taken worldwide, with nearly 10,000 exams taken in the United States.

High school psychology courses are taught in either the social studies department or the science department because of the departmental structure of American high schools. Consequently, these variations in how high school psychology courses are taught mean that students' first exposure to psychology as a discipline can be vastly different in content and level of challenge from one school to another, unlike what is expected in other fields of science taught in secondary schools. Additionally, neither social studies nor science curriculum standards have adequately addressed psychology as a discipline.

If psychology is to be taught as a scientific discipline at the secondary level, there need to be learning objectives. Thus, in 1994 the American Psychological Association commissioned the Task Force for the Development of National High School Psychology Standards to develop standards that identify what students in an introductory high school psychology course should learn. Task force members included experienced psychology educators at the secondary and university levels.

The task force members anticipated the need for periodic revision of the standards due to the continued advancement of psychology as a discipline. Soon after the original approval in August 1999 of the psychology standards, the National Standards for High School Psychology Curricula Working Group was formed to coordinate the first revision process. They facilitated a rigorous review process in order to produce a document that represents the best practices in the teaching of psychology as both a natural and social science. The first revision of these psychology standards was published in 2005, and a second revision process started in 2007. The current 2011 version of the standards reflects the evolving body of psychological knowledge.

The task force members and subsequent working group members designed these standards to enhance quality curricula, express learning goals for students, and promote excellence in the teaching of the high school introductory psychology course. The public has a right to expect a course in psychology to meet criteria for quality. Expectations with respect to learning goals should be clear. Standards related to the knowledge and skills expected of students should be high but attainable. This document represents a vision of what students should know and be able to do after completing the high school psychology course.

EXECUTIVE SUMMARY

The goal of the *National Standards for High School Psychology Curricula* is to help teachers and others responsible for the development of psychology curriculum at the secondary school level develop an accurate, comprehensive, and developmentally appropriate introductory psychology course aimed at students in grades 9 through 12. The *National Standards* does not define the discipline of psychology, nor does it prescribe what should be taught in an introductory psychology course at the postsecondary level. Rather, the *National Standards* provides a framework for teachers and others to use to craft introductory psychology courses for high school students. Mindful of this curricular context and student audience, the *National Standards* is an outline of the basic core essentials of psychological science and practice to be taught in the introductory psychology course and is intended to be relevant to the lives of high school students.

Teachers need not use the *National Standards* for daily lesson planning. Rather, teachers should use the *National Standards* to determine the overall content and learning objectives for students who are first learning about psychology in high school. Teachers can use a variety of resources, including those available through the American Psychological Association's website, to develop daily lesson plans that support the content and learning objectives in the *National Standards*.

Teachers should also use the *National Standards* to promote psychological literacy in their students. Teachers can achieve this learning outcome by balancing the opportunities for their students to discover new knowledge with opportunities to learn about established research findings and theories about human and non-human animal behavior in their lectures. Students should understand the major ideas found in psychology today and appreciate how psychologists try to understand the world, make new discoveries, and apply psychological knowledge to solve problems.

The mission of the original task force that developed these standards and the subsequent revision committees was to prepare a document that can be used by educational leaders, teachers, and other stakeholders to determine what high school psychology students ought to be taught in a high school psychology classroom. Use of the term *standards* in this document is consistent with national practices in K-12 education when disciplinary societies, teacher organizations, or other non-regulatory groups develop benchmark learning objectives for curriculum development and assessment of student learning in particular subjects of study. Consistent with the use of the

term *standards* in a secondary school setting, these standards are advisory.

OVERARCHING THEMES

The *National Standards* attempts to represent current knowledge in the field of psychology in developmentally appropriate ways. Psychology is a popular high school course, one that can introduce students to scientific ideas and engage students in the learning process. However, it is difficult for even the best of teachers to present all of psychology in a single course for students who begin with virtually no formal knowledge of psychology. Thus, the National Standards Working Group charged with revising the *National Standards* recommends that teachers of high school psychology adopt the following overarching themes listed in the sidebar as the foundation for developing their courses.

OVERARCHING THEMES

- The development of scientific attitudes and skills, including critical thinking, problem solving, and an appreciation for scientific methodology
- A recognition of the diversity of individuals who advance the field
- A multicultural and global perspective that recognizes how diversity is important to understanding psychology
- An awareness that psychological knowledge, like all scientific knowledge, evolves rapidly as new discoveries are made
- An acknowledgement that psychology explores behavior and mental processes of both human and non-human animals
- An appreciation for ethical standards that regulate scientific research and professional practice
- An understanding that different content areas within psychological science are interconnected
- An ability to relate psychological knowledge to everyday life
- A knowledge of the variety of careers available to those who study psychology
- An appreciation that psychological science and knowledge can be useful in addressing a wide array of issues, from individual to global levels
- An awareness of the importance of drawing evidence-based conclusions about psychological phenomena

STRUCTURE OF THE NATIONAL STANDARDS

The *National Standards* suggests three levels of understanding for psychology content. First, the **Domains** represent overarching thematic areas that encompass broad areas of psychological knowledge and study. Second, the **Standard Areas** are unit topics that represent closely related theories and findings regarding more specific areas of knowledge and study. Third, the **Content Standards** are specific topics teachers can use as starting points to build lessons.

Within each Content Standard, students should receive instruction that would enable them to meet specific **Performance Standards**. The *National Standards* is not presented as a taxonomy, nor is it organized to suggest that the course content be taught in a particular sequence. Rather, the aim of this design is to help teachers see how the course content can be conceptualized on multiple levels, allowing teachers to keep the overarching themes in mind while they teach more specific content each day.

2 Unlike previous iterations of the *National Standards*, this version does not include **Performance Indicators**, which served as recommendations for how teachers could recognize or assess whether students had learned the course content. Instead, the 2011 National Standards for High School Psychology Curricula Working Group invites interested stakeholders and classroom teachers to provide suggested behavioral objectives using an interactive web-based vehicle. A team of experienced high school teachers and psychological professionals will review these objectives on an ongoing basis, creating a vibrant and comprehensive database of suggested outcomes for measuring students' knowledge of psychology. The working group believes this change will allow for greater flexibility in usage of the Performance Indicators and wider input in developing these objectives. The web-based Performance Indicators can be found online at <http://www.apa.org/education/k12/national-standards.aspx>.

A graphic illustration for this version of the *National Standards* (see next page) shows how psychological knowledge builds on itself and is inherently interconnected. The following explanation is provided to assist the reader in understanding this illustration.

The Scientific Inquiry Domain is at the center of the structure, demonstrating that the perspectives in psychological science and the research methods, measurement, and statistics used to study psychological phenomena are the foundation of all psychological research and study.

The Biopsychology Domain, which includes units on the biological bases of behavior, sensation and perception, and states of consciousness, and the Development and Learning Domain, which includes units on life span development, learning, and language development, are on the second level, demonstrating how biology and the environment influence behavior in significant and fundamental ways.

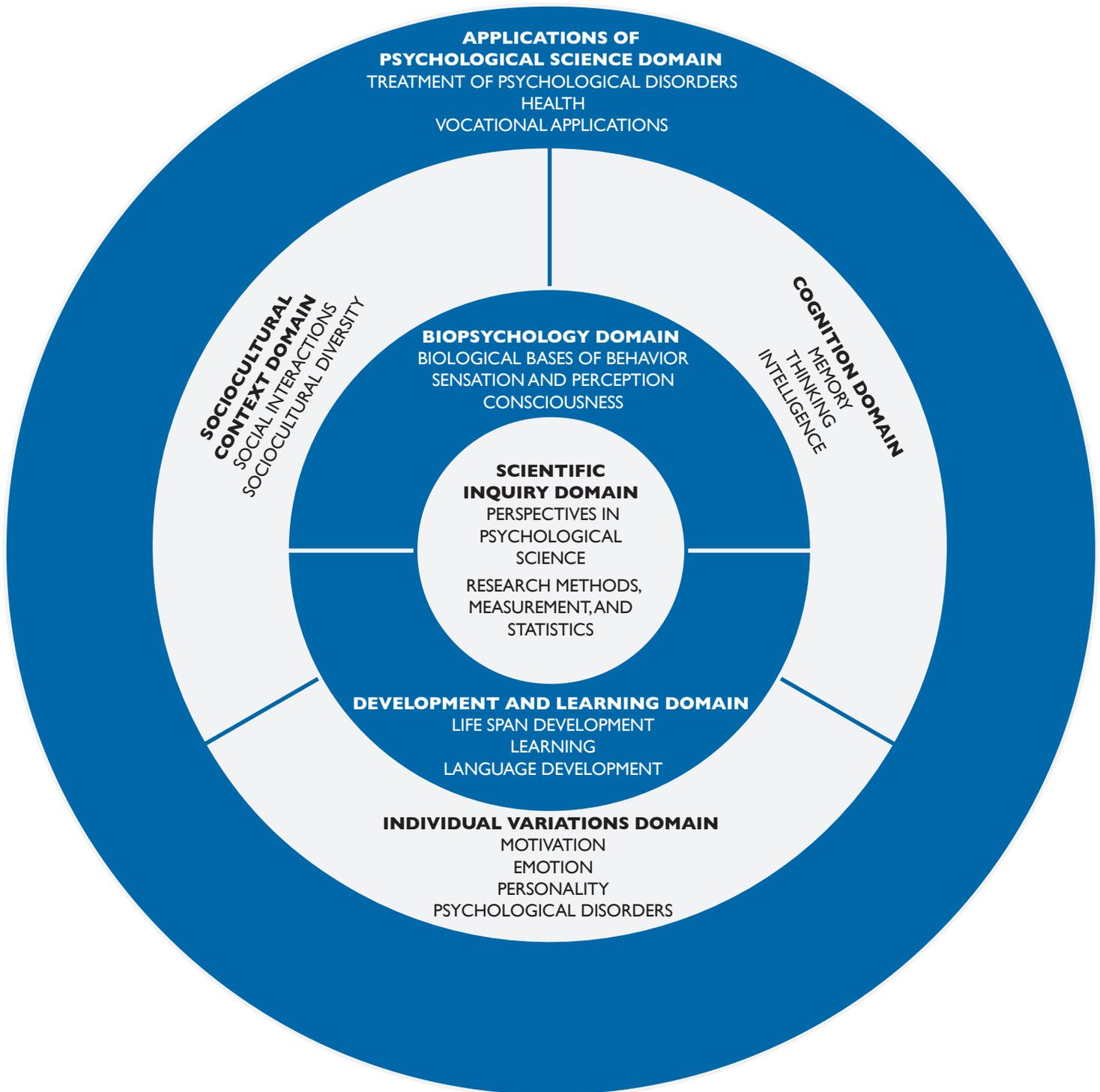
...the aim of this design is to help teachers see how the course content can be conceptualized on multiple levels, allowing teachers to keep the overarching themes in mind while they teach more specific content each day.

The third layer of the diagram includes the domains that apply psychology to more specific areas of behavior and mental processes, showcasing both basic and applied psychological science: The Cognition Domain (including units on memory, thinking, and intelligence) investigates the mental processes that

drive behavior; the Individual Variations Domain (including units on personality, motivation, emotion, and psychological disorders) highlights individual differences that occur among human beings; and the Sociocultural Context Domain (including units on social interactions and sociocultural diversity) delves into how social, cultural, gender, and economic factors influence behavior and human interactions.

The final outside layer, the Applications of Psychological Science Domain, which includes units on the treatment of psychological disorders, health, and vocational applications, showcases applied areas of psychological science, demonstrating how psychology is used by scientists and practitioners in the larger world.

GRAPHICAL ILLUSTRATION OF THE NATIONAL STANDARDS FOR HIGH SCHOOL PSYCHOLOGY CURRICULA (2011)



All of the standard areas within each domain address important areas of psychology, but a high school teacher may not have the time to teach all the units comprehensively, especially in a one-semester course. The working group provides suggestions in Appendix B for how to include fundamental content into courses. These suggestions are not considered APA policy but are provided by experienced teachers of psychology to assist teachers in planning their overall course content.

IMPORTANT CONSIDERATIONS FOR TEACHING HIGH SCHOOL PSYCHOLOGY

Infusing Diversity Issues

Teachers of high school psychology need to be keenly aware of the importance of cultural diversity for understanding human behavior and interactions. Teachers should also incorporate diversity and individual difference issues throughout the course. By infusing such content into the introductory psychology course, teachers present psychological science through a lens that is both comprehensive and representative of today's diverse student population. Issues of race/ethnicity, culture, gender identity and expression, sexual orientation, disability, religion, socioeconomic status, national origin, and aging should be incorporated into the psychology course.

Teachers may want to consult the Commission on Ethnic Minority Recruitment Retention and Training Task Force publication *Toward an Inclusive Psychology: Infusing the Introductory Psychology Textbook With Diversity Content* (APA, 2003), which provides suggestions and examples in order to help publishers, authors, and instructors advance psychology as an inclusive science. Additionally, the APA Presidential Taskforce on Diversity Education Resources, available online at <http://teachpsych.org/diversity/ptde/index.php>, provides annotated bibliographies of books, journal articles, films, websites, and other media on 20 cross-cutting issues and specific domains. The resources that accompany these standards also include a variety of publications and websites devoted to diversity issues.

Representing the Global Nature of Psychology

As psychology becomes an increasingly global discipline, teachers should present research that represents participants from diverse backgrounds and multiple cultures. Psychological research conducted in non-Western cultures often shows how psychological phenomena may operate differently than in Western cultures. By presenting these types of findings to students, teachers can reinforce the idea that researchers should be careful about generalizing research findings beyond the populations studied.

Using Active Learning

Teachers should engage students in active learning by using simulations, demonstrations, discussion, self-tests, service learning, ethically guided research, and other forms of hands-on teaching strategies. Teachers should help students apply knowledge acquired in their high school psychology course to other high school courses and to everyday life.

Using Multiple Resources to Develop Lesson Plans

Much of the content included in this document only hints at the wealth of research literature addressing each topic. Thus, high school teachers are strongly encouraged to use various resources during lesson planning to make decisions about what to teach. Teachers should strive to use multiple textbooks, scholarly publications, and other instructional resources to plan lessons in each Standard Area. The APA and the APA Teachers of Psychology in Secondary Schools (TOPSS) have a variety of teacher resources, including unit lesson plans and presentation slides, available at <http://www.apa.org/ed/precollege/topss/index.aspx>. Using these materials can assist teachers in presenting the most relevant, developmentally appropriate, and current information to students each day. Additional resources are included in Appendix C.

PROCESS OF DEVELOPING AND REVISING THE STANDARDS

Many individuals and groups, as listed in Appendix A, contributed to the initial development of these standards. Virginia Andreoli Mathie, PhD, and her committee from the APA National Conference on Enhancing the Quality of Undergraduate Education in Psychology (St. Mary's College, June 1991); the APA Board of Educational Affairs (BEA); the Task Force for the Development of National High School Psychology Standards; and Jill Reich, PhD, executive director of the Education Directorate, were key leaders in the development of the original psychology curricula standards published in August 1999.

The BEA first approved the beginning of the psychology curricula standards project in spring 1994. The APA Board of Directors approved a Task Force for the Development of National High School Psychology Standards in June 1994, with subsequent approval of the task force by the APA Council of Representatives. The task force developed the initial set of standards in 1995, and the document went through seven drafts as APA boards, committees, divisions, and APA members and affiliates reviewed the standards and submitted comments for consideration. In spring 1998, the final version was approved by BEA. The APA Board of Directors approved the final version in fall 1998, followed by the APA Council of Representatives' approval in August 1999.

First Revision of the Standards (2005)

The APA Council of Representatives approved the *National Standards* with the understanding that they should be reviewed and revised on an ongoing basis. Council specified that a revision of the standards should be undertaken on a 7-year cycle. This is consistent with provisions of APA Association Rule 30-8.3, requiring cyclical review of approved standards and guidelines within periods not to exceed 10 years.

In 2001, the National Standards for High School Psychology Curricula Working Group started the first revision process by soliciting nominations for content reviewers for each of the five original domains of the *National Standards* (i.e., Methods, Biopsychological, Developmental, Cognitive, and Sociocultural). The National Standards Working Group then sought broad feedback to update the content standards, performance standards, and performance indicators. The National Standards Working Group integrated changes into a revised draft of the standards in November of 2003. APA boards, committees, divisions, and state, provincial, and territorial psychological associations were then given an opportunity to review and provide comments on the standards. A new National Standards Working Group convened in January 2005 and incorporated the additional suggestions. The APA Council of Representatives approved the revised *National Standards* as APA policy in August 2005.

Second Revision of the Standards (2011)

Soon after the approval of the standards in 2005, planning for the second revision began. APA boards and committees nominated members for a new National Standards Working Group and a National Standards Advisory Panel. The advisory panel was made up of 10 experts, two for each of the original five domains of the *National Standards* (APA, 2005) (i.e., Methods, Biopsychological, Cognitive, Developmental, and Variations in Individual and Group Behavior).

In 2007, the National Standards Working Group invited the National Standards Advisory Panel; APA members and affiliates; and all APA boards, committees, divisions and state, provincial, and territorial psychological associations to submit feedback on the *National Standards*. The National Standards Working Group met in November 2007 to review all feedback submitted in response to the document. The National Standards Working Group and the National Standards Advisory Panel met jointly in September 2008. In 2009, the National Standards Working Group provided a revised draft of the document to APA boards, committees, divisions, and state, provincial, and territorial psychological associations for feedback. In the fall of 2009, the National Standards Working Group reviewed all submitted feedback and responded to each comment. A 90-day public comment period was held in early 2010, and the National Standards Working Group met in July 2010 to review all submitted comments and make additional changes to the draft document

as appropriate. Upon the recommendation of BEA, the National Standards Working Group invited APA governance groups to review the draft of the *National Standards* in the fall of 2010. In February 2011, the National Standards Working Group provided the revised *National Standards* to the Office of General Counsel for a final legal review. Upon the recommendation of BEA, APA governance groups received an action item recommending that the Council of Representatives approve the *National Standards* as association policy. Following approval of the revised *National Standards* by the APA Board of Directors in June 2011, the APA Council approved the second revision of the *National Standards* in August 2011.

RESOURCE DOCUMENTS

Resources used to create the psychology curricula standards included references to existing high school standards promulgated by similar disciplinary organizations. Examples in other areas of K–12 study are: the English language arts standards set forth by the National Council of Teachers of English, math standards set forth by the National Council of Teachers of Mathematics, history standards set forth by the National Center for History in the Schools, social studies standards promulgated by the National Council for the Social Studies, and science education standards promulgated by the National Research Council (NCHS, 1996; NCTE 1996; NCTM 2000; NCSS, 2010; NRC, 1998). Standards from similar disciplinary organizations were examined relative to the *National Standards*. These standards parallel similar standards of related disciplines.

Additional resources that informed the revision of the *National Standards* included the *APA Guidelines on Multicultural Education, Research, Practice, and Organizational Change for Psychologists* (APA, 2003); the *Ethical Principles of Psychologists and Code of Conduct* (APA, 2010); the *Handbook on Enhancing Undergraduate Psychology* (McGovern, 1993); *APA Guidelines for the Undergraduate Psychology Major* (APA, 2007); and *Undergraduate Education in Psychology: A Blueprint for the Future of the Discipline* (Halpern, 2010). The *Guidelines on Multicultural Education, Research, and Practice* were used as a guide for informing the committee about content specific to education. Similarly, the content that is contained in the standards is consistent with the *Ethical Principles of Psychologists and Code of Conduct*. Finally, the *Handbook on Enhancing Undergraduate Education, APA Guidelines for the Undergraduate Psychology Major, and Undergraduate Education in Psychology: A Blueprint for the Future of the Discipline* offered guidance regarding curricula for the undergraduate major. The psychology curricula standards are designed to address the introductory course in psychology, hence these publications on undergraduate psychology education provided support for the domains of introductory psychology.

FEEDBACK

The National Standards Working Group views this publication as a “living document.” We invite your comments and suggestions. Please send feedback to the National Standards Working Group, c/o APA Education Directorate, 750 First Street, NE, Washington, DC 20002-4242 (education@apa.org).

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PREAMBLE: OVERARCHING THEMES AND INFUSING DIVERSITY THROUGHOUT THE HIGH SCHOOL PSYCHOLOGY COURSE

OVERARCHING THEMES

the *National Standards for High School Psychology Curricula* attempts to represent current knowledge in the field of psychology in developmentally appropriate ways. Psychology is a popular high school course, one that can introduce students to scientific ideas and engage students in the learning process.

However, it is difficult for even the best of teachers to present all of psychology in a single course for students who begin with virtually no formal knowledge of psychology. Thus, the National Standards Working Group charged with revising the *National Standards* recommends that teachers of high school psychology adopt the overarching themes listed in the sidebar as the foundation for developing their courses.

- The development of scientific attitudes and skills, including critical thinking, problem solving, and an appreciation for scientific methodology
- A recognition of the diversity of individuals who advance the field
- A multicultural and global perspective that recognizes how diversity is important to understanding psychology
- An awareness that psychological knowledge, like all scientific knowledge, evolves rapidly as new discoveries are made
- An acknowledgement that psychology explores behavior and mental processes of both human and non-human animals
- An appreciation for ethical standards that regulate scientific research and professional practice
- An understanding that different content areas within psychological science are interconnected
- An ability to relate psychological knowledge to everyday life
- A knowledge of the variety of careers available to those who study psychology
- An appreciation that psychological science and knowledge can be useful in addressing a wide array of issues, from individual to global levels
- An awareness of the importance of drawing evidence-based conclusions about psychological phenomena

The public has a right to expect a course in psychology to meet criteria for quality. Expectations with respect to learning goals should be clear. Standards related to knowledge and skills expected of students should be high but attainable. The policy document that follows represents a vision of what students should know and be able to do after completing the high school psychology course.

The authors and editors of the psychology curricula standards recommend that teachers design courses to highlight each of the seven domains found in the standards (i.e., Scientific Inquiry, Biopsychology, Development and Learning, Socio-cultural Context, Cognition, Individual Variations, Applications of Psychological Science). The domain-driven course exposes students to the diversity of scholarship in psychology.

INFUSING DIVERSITY THROUGHOUT THE HIGH SCHOOL PSYCHOLOGY COURSE

The *National Standards* was designed to enhance quality curricula, express learning goals for students, and promote change in the teaching of the high school introductory psychology course. Among several important considerations for the teaching of high school psychology is the need for teachers to be keenly aware of the importance of cultural diversity for understanding human behavior and interactions. Teachers should also incorporate diversity and individual differences issues throughout the course. By infusing such content into the introductory psychology course, teachers present psychological science through a lens that is both comprehensive and representative of today's diverse student population. Issues of race/ethnicity, culture, gender identity and expression, sexual orientation, disability, religion, socioeconomic status, national origin, and aging should be incorporated into the psychology course.

INTRODUCTION

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development of the *National Standards for High School Psychology Curricula* originated in 1994 when a task force commissioned by the American Psychological Association (APA) identified what students in an introductory high school psychology course should learn. The psychology curricula standards were adopted as APA policy in 1999 and first revised in 2005; this current revision reflects advances in the field and updates in content.

This document is constructed to guide curriculum decisions by providing content and performance standards to guide teachers in designing instruction. The standards are hierarchically organized to reflect increasing levels of specificity (i.e., domains, standard areas, content standards, and performance standards).

DOMAINS AND STANDARD AREAS

These standards are organized in seven broad content domains: Scientific Inquiry, Biopsychology, Development and Learning, Sociocultural Context, Cognition, Individual Variations, and Applications of Psychological Science. Central to the discipline of psychology, the Scientific Inquiry Domain serves as the central and unifying element of the standards. The other six domains cover broad content areas to be included in high school psychology curricula.

Each standard area refers to a major topic or unit in psychology. The respective standard areas within each of the broad domains are listed below.

SCIENTIFIC INQUIRY DOMAIN

PERSPECTIVES IN PSYCHOLOGICAL SCIENCE
RESEARCH METHODS, MEASUREMENT, AND STATISTICS

BIOPSYCHOLOGY DOMAIN

BIOLOGICAL BASES OF BEHAVIOR
SENSATION AND PERCEPTION
CONSCIOUSNESS

DEVELOPMENT AND LEARNING DOMAIN

LIFE SPAN DEVELOPMENT
LEARNING
LANGUAGE DEVELOPMENT

SOCIOCULTURAL CONTEXT DOMAIN

SOCIAL INTERACTIONS
SOCIOCULTURAL DIVERSITY

COGNITION DOMAIN

MEMORY
THINKING
INTELLIGENCE

INDIVIDUAL VARIATIONS DOMAIN

MOTIVATION
EMOTION
PERSONALITY
PSYCHOLOGICAL DISORDERS

APPLICATIONS OF PSYCHOLOGICAL SCIENCE DOMAIN

TREATMENT OF PSYCHOLOGICAL DISORDERS
HEALTH
VOCATIONAL APPLICATIONS

CONTENT STANDARDS

Content standards are more explicit than domains and are grouped within each standard area. For example, the standard area Perspectives in Psychological Science under the Scientific Inquiry Domain contains the following content standards:

1. Development of psychology as an empirical science
2. Major subfields within psychology

Therefore, a curriculum designed to meet the Perspectives in Psychological Science standard area would include instruction in the aforementioned two content standards.

PERFORMANCE STANDARDS

Within each of the content standards, students should receive instruction that would enable them to meet specific performance standards. For example, four performance standards are included under the content standard Development of psychology as an empirical science:

- 1.1 Define psychology as a discipline and identify its goals as a science.
- 1.2 Describe the emergence of psychology as a scientific discipline.
- 1.3 Describe perspectives employed to understand behavior and mental processes.
- 1.4 Recognize the evolving nature of psychology as a scientific discipline.

SCIENTIFIC INQUIRY DOMAIN

STANDARD AREA: PERSPECTIVES IN PSYCHOLOGICAL SCIENCE

CONTENT STANDARDS

After concluding this unit, students understand:

1. Development of psychology as an empirical science
2. Major subfields within psychology

Content Standards With Performance Standards

CONTENT STANDARD 1: Development of psychology as an empirical science

Students are able to (performance standards):

- 1.1 Define psychology as a discipline and identify its goals as a science
- 1.2 Describe the emergence of psychology as a scientific discipline
- 1.3 Describe perspectives employed to understand behavior and mental processes
- 1.4 Explain how psychology evolved as a scientific discipline

CONTENT STANDARD 2: Major subfields within psychology

Students are able to (performance standards):

- 2.1 Discuss the value of both basic and applied psychological research with human and non-human animals
- 2.2 Describe the major subfields of psychology
- 2.3 Identify the important role psychology plays in benefiting society and improving people's lives

STANDARD AREA: RESEARCH METHODS, MEASUREMENT, AND STATISTICS

CONTENT STANDARDS

After concluding this unit, students understand:

1. Research methods and measurements used to study behavior and mental processes
2. Ethical issues in research with human and non-human animals
3. Basic concepts of data analysis

Content Standards With Performance Standards

CONTENT STANDARD 1: Research methods and measurements used to study behavior and mental processes

Students are able to (performance standards):

- 1.1 Describe the scientific method and its role in psychology
- 1.2 Describe and compare a variety of quantitative (e.g.,

surveys, correlations, experiments) and qualitative (e.g., interviews, narratives, focus groups) research methods

- 1.3 Define systematic procedures used to improve the validity of research findings, such as external validity

- 1.4 Discuss how and why psychologists use non-human animals in research

CONTENT STANDARD 2: Ethical issues in research with human and non-human animals

Students are able to (performance standards):

- 2.1 Identify ethical standards psychologists must address regarding research with human participants
- 2.2 Identify ethical guidelines psychologists must address regarding research with non-human animals

CONTENT STANDARD 3: Basic concepts of data analysis

Students are able to (performance standards):

- 3.1 Define descriptive statistics and explain how they are used by psychological scientists
- 3.2 Define forms of qualitative data and explain how they are used by psychological scientists
- 3.3 Define correlation coefficients and explain their appropriate interpretation
- 3.4 Interpret graphical representations of data as used in both quantitative and qualitative methods
- 3.5 Explain other statistical concepts, such as statistical significance and effect size
- 3.6 Explain how validity and reliability of observations and measurements relate to data analysis

BIOPSYCHOLOGY DOMAIN

STANDARD AREA: BIOLOGICAL BASES OF BEHAVIOR

CONTENT STANDARDS

After concluding this unit, students understand:

1. Structure and function of the nervous system in human and non-human animals
2. Structure and function of the endocrine system
3. The interaction between biological factors and experience
4. Methods and issues related to biological advances

Content Standards With Performance Standards

CONTENT STANDARD 1: Structure and function of the nervous system in human and non-human animals

Students are able to (performance standards):

- 1.1 Identify the major divisions and subdivisions of the human nervous system
- 1.2 Identify the parts of the neuron and describe the basic process of neural transmission
- 1.3 Differentiate between the structures and functions of the various parts of the central nervous system
- 1.4 Describe lateralization of brain functions
- 1.5 Discuss the mechanisms and the importance of plasticity of the nervous system

CONTENT STANDARD 2: Structure and function of the endocrine system

Students are able to (performance standards):

- 2.1 Describe how the endocrine glands are linked to the nervous system
- 2.2 Describe the effects of hormones on behavior and mental processes
- 2.3 Describe hormone effects on the immune system

CONTENT STANDARD 3: The interaction between biological factors and experience

Students are able to (performance standards):

- 3.1 Describe concepts in genetic transmission
- 3.2 Describe the interactive effects of heredity and environment
- 3.3 Explain how evolved tendencies influence behavior

CONTENT STANDARD 4: Methods and issues related to biological advances

Students are able to (performance standards):

- 4.1 Identify tools used to study the nervous system
- 4.2 Describe advances made in neuroscience

- 4.3 Discuss issues related to scientific advances in neuroscience and genetics

STANDARD AREA: SENSATION AND PERCEPTION

CONTENT STANDARDS

After concluding this unit, students understand:

1. The processes of sensation and perception
2. The capabilities and limitations of sensory processes
3. Interaction of the person and the environment in determining perception

Content Standards With Performance Standards

CONTENT STANDARD 1: The processes of sensation and perception

Students are able to (performance standards):

- 1.1 Discuss processes of sensation and perception and how they interact
- 1.2 Explain the concepts of threshold and adaptation

CONTENT STANDARD 2: The capabilities and limitations of sensory processes

Students are able to (performance standards):

- 2.1 List forms of physical energy for which humans and non-human animals do and do not have sensory receptors
- 2.2 Describe the visual sensory system
- 2.3 Describe the auditory sensory system
- 2.4 Describe other sensory systems, such as olfaction, gustation, and somesthesia (e.g., skin senses, kinesthesia, and vestibular sense)

CONTENT STANDARD 3: Interaction of the person and the environment in determining perception

Students are able to (performance standards):

- 3.1 Explain Gestalt principles of perception
- 3.2 Describe binocular and monocular depth cues
- 3.3 Describe the importance of perceptual constancies
- 3.4 Describe perceptual illusions
- 3.5 Describe the nature of attention
- 3.6 Explain how experiences and expectations influence perception

STANDARD AREA: CONSCIOUSNESS

CONTENT STANDARDS

After concluding this unit, students understand:

1. The relationship between conscious and unconscious processes
2. Characteristics of sleep and theories that explain why we sleep and dream
3. Categories of psychoactive drugs and their effects
4. Other states of consciousness

Content Standards With Performance Standards

CONTENT STANDARD 1: The relationship between conscious and unconscious processes

Students are able to (performance standards):

- 1.1 Identify states of consciousness
- 1.2 Distinguish between processing that is conscious (i.e., explicit) and other processing that happens without conscious awareness (i.e., implicit)

CONTENT STANDARD 2: Characteristics of sleep and theories that explain why we sleep and dream

Students are able to (performance standards)

- 2.1 Describe the circadian rhythm and its relation to sleep
- 2.2 Describe the sleep cycle
- 2.3 Compare theories about the functions of sleep
- 2.4 Describe types of sleep disorders
- 2.5 Compare theories about the functions of dreams

CONTENT STANDARD 3: Categories of psychoactive drugs and their effects

Students are able to (performance standards):

- 3.1 Characterize the major categories of psychoactive drugs and their effects
- 3.2 Describe how psychoactive drugs act at the synaptic level
- 3.3 Evaluate the biological and psychological effects of psychoactive drugs
- 3.4 Explain how culture and expectations influence the use and experience of drugs

CONTENT STANDARD 4: Other states of consciousness

Students are able to (performance standards)

- 4.1 Describe meditation and relaxation and their effects
- 4.2 Describe hypnosis and controversies surrounding its nature and use
- 4.3 Describe flow states

DEVELOPMENT AND LEARNING DOMAIN

STANDARD AREA: LIFE SPAN DEVELOPMENT

CONTENT STANDARDS

After concluding this unit, students understand:

1. Methods and issues in life span development
2. Theories of life span development
3. Prenatal development and the newborn
4. Infancy (i.e., the first two years of life)
5. Childhood
6. Adolescence
7. Adulthood and aging

Content Standards With Performance Standards

CONTENT STANDARD 1: Methods and issues in life span development

Students are able to (performance standards):

- 1.1 Explain the interaction of environmental and biological factors in development, including the role of the brain in all aspects of development
- 1.2 Explain issues of continuity/discontinuity and stability/change
- 1.3 Distinguish methods used to study development
- 1.4 Describe the role of sensitive and critical periods in development
- 1.5 Discuss issues related to the end of life

CONTENT STANDARD 2: Theories of life span development

Students are able to (performance standards):

- 2.1 Discuss theories of cognitive development
- 2.2 Discuss theories of moral development
- 2.3 Discuss theories of social development

CONTENT STANDARD 3: Prenatal development and the newborn

Students are able to (performance standards):

- 3.1 Describe physical development from conception through birth and identify influences on prenatal development
- 3.2 Describe newborns' reflexes, temperament, and abilities

CONTENT STANDARD 4: Infancy (i.e., the first two years of life)

Students are able to (performance standards):

- 4.1 Describe physical and motor development

4.2 Describe how infant perceptual abilities and intelligence develop

4.3 Describe the development of attachment and the role of the caregiver

4.4 Describe the development of communication and language

CONTENT STANDARD 5: Childhood

Students are able to (performance standards):

- 5.1 Describe physical and motor development
- 5.2 Describe how memory and thinking ability develops
- 5.3 Describe social, cultural, and emotional development through childhood

CONTENT STANDARD 6: Adolescence

Students are able to (performance standards):

- 6.1 Identify major physical changes
- 6.2 Describe the development of reasoning and morality
- 6.3 Describe identity formation
- 6.4 Discuss the role of family and peers in adolescent development

CONTENT STANDARD 7: Adulthood and aging

Students are able to (performance standards):

- 7.1 Identify major physical changes associated with adulthood and aging
- 7.2 Describe cognitive changes in adulthood and aging
- 7.3 Discuss social, cultural, and emotional issues in aging

STANDARD AREA: LEARNING

CONTENT STANDARDS

After concluding this unit, students understand:

1. Classical conditioning
2. Operant conditioning
3. Observational and cognitive learning

Content Standards With Performance Standards

CONTENT STANDARD 1: Classical conditioning

Students are able to (performance standards):

- 1.1 Describe the principles of classical conditioning
- 1.2 Describe clinical and experimental examples of classical conditioning
- 1.3 Apply classical conditioning to everyday life

CONTENT STANDARD 2: Operant conditioning

Students are able to (performance standards):

- 2.1 Describe the Law of Effect
- 2.2 Describe the principles of operant conditioning
- 2.3 Describe clinical and experimental examples of operant conditioning
- 2.4 Apply operant conditioning to everyday life

CONTENT STANDARD 3: Observational and cognitive learning

Students are able to (performance standards):

- 3.1 Describe the principles of observational and cognitive learning
- 3.2 Apply observational and cognitive learning to everyday life

STANDARD AREA: LANGUAGE DEVELOPMENT

CONTENT STANDARDS

After concluding this unit, students understand:

1. Structural features of language
2. Theories and developmental stages of language acquisition
3. Language and the brain

Content Standards With Performance Standards

CONTENT STANDARD 1: Structural features of language

Students are able to (performance standards):

- 1.1 Describe the structure and function of language
- 1.2 Discuss the relationship between language and thought

CONTENT STANDARD 2: Theories and developmental stages of language acquisition

Students are able to (performance standards):

- 2.1 Explain the process of language acquisition
- 2.2 Discuss how acquisition of a second language can affect language development and possibly other cognitive processes
- 2.3 Evaluate the theories of language acquisition

CONTENT STANDARD 3: Language and the brain

Students are able to (performance standards):

- 3.1 Identify the brain structures associated with language
- 3.2 Discuss how damage to the brain may affect language

SOCIOCULTURAL CONTEXT DOMAIN

STANDARD AREA: SOCIAL INTERACTIONS

CONTENT STANDARDS

After concluding this unit, students understand:

1. Social cognition
2. Social influence
3. Social relations

Content Standards With Performance Standards

CONTENT STANDARD 1: Social cognition

Students are able to (performance standards):

- 1.1 Describe attributional explanations of behavior
- 1.2 Describe the relationship between attitudes (implicit and explicit) and behavior
- 1.3 Identify persuasive methods used to change attitudes

CONTENT STANDARD 2: Social influence

Students are able to (performance standards):

- 2.1 Describe the power of the situation
- 2.2 Describe effects of others' presence on individuals' behavior
- 2.3 Describe how group dynamics influence behavior
- 2.4 Discuss how an individual influences group behavior

CONTENT STANDARD 3: Social relations

Students are able to (performance standards):

- 3.1 Discuss the nature and effects of stereotyping, prejudice, and discrimination
- 3.2 Describe determinants of prosocial behavior
- 3.3 Discuss influences upon aggression and conflict
- 3.4 Discuss factors influencing attraction and relationships

- 1.2 Identify how cultures change over time and vary within nations and internationally
- 1.3 Discuss the relationship between culture and conceptions of self and identity
- 1.4 Discuss psychological research examining race and ethnicity
- 1.5 Discuss psychological research examining socioeconomic status
- 1.6 Discuss how privilege and social power structures relate to stereotypes, prejudice, and discrimination

CONTENT STANDARD 2: Diversity among individuals

Students are able to (performance standards):

- 2.1 Discuss psychological research examining gender identity
- 2.2 Discuss psychological research examining diversity in sexual orientation
- 2.3 Compare and contrast gender identity and sexual orientation
- 2.4 Discuss psychological research examining gender similarities and differences and the impact of gender discrimination
- 2.5 Discuss the psychological research on gender and how the roles of women and men in societies are perceived
- 2.6 Examine how perspectives affect stereotypes and treatment of minority and majority groups in society
- 2.7 Discuss psychological research examining differences in individual cognitive and physical abilities

STANDARD AREA: SOCIOCULTURAL DIVERSITY

CONTENT STANDARDS

After concluding this unit, students understand:

1. Social and cultural diversity
2. Diversity among individuals

Content Standards With Performance Standards

CONTENT STANDARD 1: Social and cultural diversity

Students are able to (performance standards):

- 1.1 Define culture and diversity

COGNITION DOMAIN

STANDARD AREA: MEMORY

CONTENT STANDARDS

After concluding this unit, students understand:

1. Encoding of memory
2. Storage of memory
3. Retrieval of memory

Content Standards With Performance Standards

CONTENT STANDARD 1: Encoding of memory

Students are able to (performance standards):

- 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

CONTENT STANDARD 2: Storage of memory

Students are able to (performance standards):

- 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

CONTENT STANDARD 3: Retrieval of memory

Students are able to (performance standards):

- 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

STANDARD AREA: THINKING

CONTENT STANDARDS

After concluding this unit, students understand:

1. Basic elements comprising thought
2. Obstacles related to thought

Content Standards With Performance Standards

CONTENT STANDARD 1: Basic elements comprising thought

Students are able to (performance standards):

- 1.1 Define cognitive processes involved in understanding information
- 1.2 Define processes involved in problem solving and decision making
- 1.3 Discuss non-human problem-solving abilities

CONTENT STANDARD 2: Obstacles related to thought

Students are able to (performance standards):

- 2.1 Describe obstacles to problem solving
- 2.2 Describe obstacles to decision making
- 2.3 Describe obstacles to making good judgments

STANDARD AREA: INTELLIGENCE

CONTENT STANDARDS

After concluding this unit, students understand:

1. Perspectives on intelligence
2. Assessment of intelligence
3. Issues in intelligence

Content Standards With Performance Standards

CONTENT STANDARD 1: Perspectives on intelligence

Students are able to (performance standards):

- 1.1 Discuss intelligence as a general factor
- 1.2 Discuss alternative conceptualizations of intelligence
- 1.3 Describe the extremes of intelligence

CONTENT STANDARD 2: Assessment of intelligence

Students are able to (performance standards):

- 2.1 Discuss the history of intelligence testing, including historical use and misuse in the context of fairness
- 2.2 Identify current methods of assessing human abilities
- 2.3 Identify measures of and data on reliability and validity for intelligence test scores

CONTENT STANDARD 3: Issues in intelligence

Students are able to (performance standards):

- 3.1 Discuss issues related to the consequences of intelligence testing
- 3.2 Discuss the influences of biological, cultural, and environmental factors on intelligence

INDIVIDUAL VARIATIONS DOMAIN

STANDARD AREA: MOTIVATION

CONTENT STANDARDS

After concluding this unit, students understand:

1. Perspectives on motivation
2. Domains of motivated behavior in humans and non-human animals

Content Standards With Performance Standards

CONTENT STANDARD 1: Perspectives on motivation

Students are able to (performance standards):

- 1.1 Explain biologically based theories of motivation
- 1.2 Explain cognitively based theories of motivation
- 1.3 Explain humanistic theories of motivation
- 1.4 Explain the role of culture in human motivation

CONTENT STANDARD 2: Domains of motivated behavior in humans and non-human animals

Students are able to (performance standards):

- 2.1 Discuss eating behavior
- 2.2 Discuss sexual behavior and orientation
- 2.3 Discuss achievement motivation
- 2.4 Discuss other ways in which humans and non-human animals are motivated

STANDARD AREA: EMOTION

CONTENT STANDARDS

After concluding this unit, students understand:

1. Perspectives on emotion
2. Emotional interpretation and expression
3. Domains of emotional behavior

Content Standards With Performance Standards

CONTENT STANDARD 1: Perspectives on emotion

Students are able to (performance standards):

- 1.1 Explain the biological and cognitive components of emotion
- 1.2 Discuss psychological research on basic human emotions
- 1.3 Differentiate among theories of emotional experience

CONTENT STANDARD 2: Emotional interpretation and expression

Students are able to (performance standards):

- 2.1 Explain how biological factors influence emotional interpretation and expression
- 2.2 Explain how culture and gender influence emotional interpretation and expression
- 2.3 Explain how other environmental factors influence emotional interpretation and expression

CONTENT STANDARD 3: Domains of emotional behavior

Students are able to (performance standards):

- 3.1 Identify biological and environmental influences on the expression and experience of negative emotions, such as fear
- 3.2 Identify biological and environmental influences on the expression and experience of positive emotions, such as happiness

STANDARD AREA: PERSONALITY

CONTENT STANDARDS

After concluding this unit, students understand:

1. Perspectives on personality
2. Assessment of personality
3. Issues in personality

Content Standards With Performance Standards

CONTENT STANDARD 1: Perspectives on personality

Students are able to (performance standards):

- 1.1 Evaluate psychodynamic theories
- 1.2 Evaluate trait theories
- 1.3 Evaluate humanistic theories
- 1.4 Evaluate social-cognitive theories

CONTENT STANDARD 2: Assessment of personality

Students are able to (performance standards):

- 2.1 Differentiate personality assessment techniques
- 2.2 Discuss the reliability and validity of personality assessment techniques

CONTENT STANDARD 3: Issues in personality

Students are able to (performance standards):

- 3.1 Discuss biological and situational influences
- 3.2 Discuss stability and change
- 3.3 Discuss connections to health and work
- 3.4 Discuss self-concept
- 3.5 Analyze how individualistic and collectivistic cultural perspectives relate to personality

STANDARD AREA: PSYCHOLOGICAL DISORDERS

CONTENT STANDARDS

After concluding this unit, students understand:

1. Perspectives on abnormal behavior
2. Categories of psychological disorders

Content Standards With Performance Standards

CONTENT STANDARD 1: Perspectives on abnormal behavior

Students are able to (performance standards):

- 1.1 Define psychologically abnormal behavior
- 1.2 Describe historical and cross-cultural views of abnormality
- 1.3 Describe major models of abnormality
- 1.4 Discuss how stigma relates to abnormal behavior
- 1.5 Discuss the impact of psychological disorders on the individual, family, and society

CONTENT STANDARD 2: Categories of psychological disorders

Students are able to (performance standards):

- 2.1 Describe the classification of psychological disorders
- 2.2 Discuss the challenges associated with diagnosis
- 2.3 Describe symptoms and causes of major categories of psychological disorders (including schizophrenic, mood, anxiety, and personality disorders)
- 2.4 Evaluate how different factors influence an individual's experience of psychological disorders

APPLICATIONS OF PSYCHOLOGICAL SCIENCE DOMAIN

STANDARD AREA: TREATMENT OF PSYCHOLOGICAL DISORDERS

CONTENT STANDARDS

After concluding this unit, students understand:

1. Perspectives on treatment
2. Categories of treatment and types of treatment providers
3. Legal, ethical, and professional issues in the treatment of psychological disorders

Content Standards With Performance Standards

CONTENT STANDARD 1: Perspectives on treatment

Students are able to (performance standards):

- 1.1 Explain how psychological treatments have changed over time and among cultures
- 1.2 Match methods of treatment to psychological perspectives
- 1.3 Explain why psychologists use a variety of treatment options

CONTENT STANDARD 2: Categories of treatment and types of treatment providers

Students are able to (performance standards):

- 2.1 Identify biomedical treatments
- 2.2 Identify psychological treatments
- 2.3 Describe appropriate treatments for different age groups
- 2.4 Evaluate the efficacy of treatments for particular disorders
- 2.5 Identify other factors that improve the efficacy of treatment
- 2.6 Identify treatment providers for psychological disorders and the training required for each

CONTENT STANDARD 3: Legal, ethical, and professional issues in the treatment of psychological disorders

Students are able to (performance standards):

- 3.1 Identify ethical challenges involved in delivery of treatment
- 3.2 Identify national and local resources available to support individuals with psychological disorders and their families (e.g., NAMI and support groups)

STANDARD AREA: HEALTH

CONTENT STANDARDS

After concluding this unit, students understand:

1. Stress and coping
2. Behaviors and attitudes that promote health

Content Standards With Performance Standards

CONTENT STANDARD 1: Stress and coping

Students are able to (performance standards):

- 1.1 Define stress as a psychophysiological reaction
- 1.2 Identify and explain potential sources of stress
- 1.3 Explain physiological and psychological consequences for health
- 1.4 Identify and explain physiological, cognitive, and behavioral strategies to deal with stress

CONTENT STANDARD 2: Behaviors and attitudes that promote health

Students are able to (performance standards):

- 2.1 Identify ways to promote mental health and physical fitness
- 2.2 Describe the characteristics of and factors that promote resilience and optimism
- 2.3 Distinguish between effective and ineffective means of dealing with stressors and other health issues

STANDARD AREA: VOCATIONAL APPLICATIONS

CONTENT STANDARDS

After concluding this unit, students understand:

1. Career options
2. Educational requirements
3. Vocational applications of psychological science

Content Standards With Performance Standards

CONTENT STANDARD 1: Career options

Students are able to (performance standards):

- 1.1 Identify careers in psychological science and practice
- 1.2 Identify careers related to psychology

CONTENT STANDARD 2: Educational requirements

Students are able to (performance standards):

- 2.1 Identify degree requirements for psychologists and psychology-related careers
- 2.2 Identify resources to help select psychology programs for further study

CONTENT STANDARD 3: Vocational applications of psychological science

- 3.1 Discuss ways in which psychological science addresses domestic and global issues
- 3.2 Identify careers in psychological science that have evolved as a result of domestic and global issues

APPENDIX A — CONTRIBUTORS

CONTRIBUTORS TO THE NATIONAL STANDARDS FOR HIGH SCHOOL PSYCHOLOGY CURRICULA (2011 REVISION)

NATIONAL STANDARDS FOR HIGH SCHOOL PSYCHOLOGY CURRICULA WORKING GROUP

Amy C. Fineburg, PhD, Chair, Oak Mountain High School, Birmingham, AL
James E. Freeman, PhD, University of Virginia, Charlottesville, VA
David G. Myers, PhD, Hope College, Holland, MI
Debra E. Park, Rutgers University, Camden, NJ; West Deptford High School, Westville, NJ (retired)
Hilary Rosenthal, Glenbrook South High School, Glenview, IL

NATIONAL STANDARDS ADVISORY PANEL

Elizabeth Ligon Bjork, PhD, University of California Los Angeles, Los Angeles, CA
Joan C. Chrisler, PhD, Connecticut College, New London, CT
James W. Kalat, PhD, North Carolina State University, Raleigh, NC
Cheryl A. Luis, PhD, Roskamp Institute Memory Clinic, Tampa, FL
S. Morton McPhail, PhD, Valtera Corporation, Houston, TX
Jeffery Scott Mio, PhD, California State Polytechnic University, Pomona, CA
David B. Mitchell, PhD, Kennesaw State University, Kennesaw, GA
Patricia Puccio, EdD, College of DuPage, Glen Ellyn, IL
Daniel Reisberg, PhD, Reed College, Portland, OR
Susan Krauss Whitbourne, PhD, University of Massachusetts, Amherst, MA

REVIEWERS

Tack Chace, Shrewsbury High School, Shrewsbury, MA
Dennis Cheek, PhD, Kauffman Foundation, Kennett Square, PA
Stewart Cooper, PhD, Valparaiso University, Valparaiso, IN
Bruce Henderson, PhD, Western Carolina University, Cullowhee, NC
Mary Kite, PhD, Ball State University, Muncie, IN
Ladonna Lewis, PhD, Glendale Community College, Glendale, AZ
Pat Purvis, PhD, The Therapy Center, Wichita, KS
Brendan Rush, Berlin High School, Berlin, CT

CONTRIBUTORS

Alan Feldman, Glen Rock High School, Glen Rock, NJ
Steve Jones, City of Medicine Academy, Durham, NC
Kent A. Korek, Germantown High School, Germantown, WI

APA GOVERNANCE REVIEW

APA Board for the Advancement of Psychology in the Public Interest
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APA Board of Professional Affairs
APA Board of Scientific Affairs
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APA Committee on Aging
APA Committee on Animal Research and Ethics
APA Committee on Children, Youth, and Families
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AMERICAN PSYCHOLOGICAL ASSOCIATION, WASHINGTON, DC, STAFF

Cynthia D. Belar, PhD, ABPP, Education Directorate
Martha Boenau, Education Directorate
Caitlin Crowley, Education Directorate
Emily Leary, Education Directorate
Robin Hailstorks, PhD, Education Directorate
Elizabeth Woodcock, Public and Member Communications
Joanne Zaslow, MS, Public and Member Communications

APPENDIX B— IMPLEMENTATION ISSUES

HOW TO USE THE NATIONAL STANDARDS FOR HIGH SCHOOL PSYCHOLOGY CURRICULA IN DAY-TO-DAY LESSON PLANS

Accountability legislation typically demands that teachers demonstrate how their lessons and courses align with local, state, and national standards. Some local school districts and state boards of education have adopted standards for teaching high school psychology that are based on these standards. Along with, or in the absence of, local or state guidelines for teaching high school psychology, teachers can use these standards as a starting point for daily lesson planning, once scope and sequence for the course are determined.

Teachers should design high school courses in psychology that revolve around the overarching themes found in the preamble to these standards. These themes focus instruction around the core principles of the discipline and help students see an overarching framework for how psychologists think and work. All lessons should be based on these themes so students can appreciate the breadth and depth of psychological science.

Teachers should note that in the online version of this document, performance indicators are suggested for every performance standard. These performance indicators may be used as a starting point for classroom activities or student assignments. They are only suggestions. Teachers will want to substitute and supplement freely as they develop their own courses and lesson plans. These performance indicators can be found online only at <http://www.apa.org/education/k12/national-standards.aspx>.

Many other resources can help build the standards into an effective course. The APA Education Directorate and the APA Teachers of Psychology in Secondary Schools (TOPSS) have been especially active in publishing a series of unit lesson plans designed to help instructors teach a scientifically based course. Each of these plans contains a suggested procedural outline, a content outline, activities, critical-thinking exercises, discussion questions, and a bibliography. As they are developed, these unit plans are distributed to TOPSS members. Previously published units are available online for current members on the TOPSS website (<http://www.apa.org/ed/precollege/topss/index.aspx>). Limited paper copies of unit lesson plans can be obtained from the APA Education Directorate (education@apa.org).

In addition, APA is a rich resource for enhancing a person's own knowledge of psychology and for enriching course content for high school students. Becoming an APA High School Teach-

er Affiliate/TOPSS member can be beneficial because APA resources can be key tools for planning, preparing, and teaching a high school psychology course. TOPSS provides high-quality curricular materials, as well as a professional connection with other high school psychology teachers and a variety of student-oriented benefits, among other things. Appendix C provides additional information about TOPSS.

Teachers can also use materials provided with psychology textbooks. Most textbooks have an extensive package of materials that can be used to teach content more effectively. Perhaps the most helpful of these materials is the instructor's manual, which generally contains background information for the concepts covered in the text, lecture ideas, and suggestions for activities, demonstrations, and assignments. The usefulness of this information may vary, and one way to help select the most valuable information is to use the instructor's manual in conjunction with these standards. Time is at a premium for most teachers, so the standards can be helpful in choosing what to emphasize. Ideally, the teacher can relate every class activity to these standards.

From software to electronic mailing lists, technological resources also provide teachers with support in the form of specific classroom activities and can be used in conjunction with these standards. Software can enhance the teaching of high school psychology by promoting active learning; most of the major textbook publishers have developed software to accompany their introductory psychology textbooks, and other distributors have marketed relevant software. Electronic mailing lists provide teachers with the opportunity to communicate with many other teachers with relative ease and convenience and are an excellent way to get answers to questions about the teaching of psychology. Electronic mailing lists allow groups of people to carry on dialogue (called "threads") and share ideas. Appendix C contains information on print, video, and computer resources, and provides examples of several electronic mailing lists that are of particular interest to psychology teachers.

The best thing for a teacher to do is to start with the basic framework provided by the standards to determine which parts of the textbook will be taught. The teacher needs to explore other sources of information to continually refine and improve the psychology course. Teachers should use materials and activities that align to the standards suggested in this document so that students can experience a high-quality introduction to the science of psychology.

This appendix contains a Lesson Planning Sheet to help connect teachers' present teaching strategies and materials to the psychology curricula standards and to develop new lessons designed specifically to meet one or more performance standards. The format of the sheet makes it possible to integrate the standards quickly and efficiently into the curriculum in a practical, useful way. To show how the Lesson Planning Sheet might be used, a blank planning sheet and a sample lesson are included at the end of this section.

SUGGESTED SCOPE AND SEQUENCE FOR A HIGH SCHOOL PSYCHOLOGY COURSE

Deciding what to teach and when to teach it is the first decision teachers must face in any course, and psychology is no exception. Psychology teachers have many options for determining scope and sequence of their courses based on the standards contained in this document. Ideally, psychology should be a year-long course covering all of the units within each standard area in a relatively equitable fashion. In a year-long course, teachers can take roughly 2 weeks to teach each standard area, thus providing enough time to cover the material adequately and leave time for discussions, active learning, and inevitable interruptions in school schedules.

Not all teachers, however, have the luxury of teaching psychology as a year-long course. Block scheduling and priority for required courses may leave schools that want to offer psychology little choice other than to offer it as a one-semester course. A one-semester course does not provide sufficient time to teach units (i.e., standard areas) that enable students to achieve all of the standards. However, the standards do provide flexibility for teachers whose schedules are limited. The authors and editors of the psychology curriculum standards recommend that teachers design courses to highlight each of the seven core domains found in the standards (i.e., Scientific Inquiry, Biopsychology, Cognition, Development and Learning, Sociocultural Context, Individual Variations, and Applications of Psychological Science). Designing a domain-driven course gives teachers avenues to solve the scope-and-sequence problem in semester courses with creativity. The domain-driven course exposes students to the diversity of scholarship in psychology. This section provides some sample course outlines for 7- to 20-unit courses of study that use the seven domains of the standards as the driving force behind curricular decisions.

Curricular decisions are made for a variety of reasons, and a teacher might choose one outline or another based on any of several factors. For example, instructors may choose outlines that put the areas with which they are most comfortable earlier than other areas. Alternatively, the choice may be made to time content areas to correspond with related current events (e.g., aligning the Life Span Development lessons to occur shortly before graduation). An instructor whose students participate in a science fair may choose to emphasize units that seem most likely to generate ideas for research projects. A 7-unit semester course may be desirable when the teacher chooses depth over breadth, whereas a 10-, 15-, or 20-unit semester course may be preferable if the teacher wants students to recognize the wide diversity of the field. Each of the outlines meets these recommendations. Whatever choice the instructor makes, these outlines provide structure for a course that covers psychology at an appropriate level and with appropriate breadth.

SAMPLE OUTLINES FOR A SEVEN-UNIT SEMESTER

These outlines incorporate one unit from each domain.

PLAN 1

UNIT	DOMAIN
Research Methods, Measurement, and Statistics	Scientific Inquiry
Biological Bases of Behavior	Biopsychology
Memory	Cognition
Social Interactions	Sociocultural Context
Life Span Development	Development and Learning
Motivation	Individual Variations
Health	Applications of Psychological Science

PLAN 2

UNIT	DOMAIN
Perspectives in Psychological Science	Scientific Inquiry
Sensation and Perception	Biopsychology
Thinking	Cognition
Learning	Development and Learning
Sociocultural Diversity	Sociocultural Context
Psychological Disorders	Individual Variations
Treatment of Psychological Disorders	Applications of Psychological Science

SAMPLE OUTLINES FOR A **NINE-UNIT SEMESTER**

These outlines highlight each domain, but focus on one or two domains depending on student interest or teacher specialization.

PLAN 1

UNIT	DOMAIN
Research Methods, Measurement, and Statistics	Scientific Inquiry
Social Interactions	Sociocultural Context
Sociocultural Diversity	Sociocultural Context
Biological Bases of Behavior	Biopsychology
Sensation and Perception	Biopsychology
Psychological Disorders	Individual Variations
Treatment of Psychological Disorders	Applications of Psychological Science
Memory	Cognition
Life Span Development	Development and Learning

PLAN 2

UNIT	DOMAIN
Research Methods, Measurement, and Statistics	Scientific Inquiry
Life Span Development	Development and Learning
Learning	Development and Learning
Biological Bases of Behavior	Biopsychology
Consciousness	Biopsychology
Memory	Cognition
Psychological Disorders	Individual Variations
Social Interactions	Sociocultural Context
Treatment of Psychological Disorders	Applications of Psychological Science

SAMPLE OUTLINES FOR A 10-UNIT COURSE

These outlines highlight each domain, but allow for greater depth of coverage since all units are not included.

PLAN 1

UNIT	DOMAIN
Research Methods, Measurement, and Statistics	Scientific Inquiry
Biological Bases of Behavior	Biopsychology
Learning	Development and Learning
Memory	Cognition
Life Span Development	Development and Learning
Thinking	Cognition
Social Interactions	Sociocultural Context
Sensation and Perception	Biopsychology
Health	Applications of Psychological Science
Psychological Disorders	Individual Variations

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PLAN 2

UNIT	DOMAIN
Perspectives of Psychological Science	Scientific Inquiry
Life Span Development	Development and Learning
Biological Bases of Behavior	Biopsychology
Sensation and Perception	Biopsychology
Learning	Development and Learning
Memory	Cognition
Personality	Individual Variations
Sociocultural Diversity	Sociocultural Context
Psychological Disorders	Individual Variations
Treatment of Psychological Disorders	Applications of Psychological Science

PLAN 3

UNIT	DOMAIN
Research Methods, Measurement, and Statistics	Scientific Inquiry
Social Interactions	Sociocultural Context
Learning	Development and Learning
Memory	Cognition
Biological Bases of Behavior	Biopsychology
Thinking	Cognition
Consciousness	Biopsychology
Life Span Development	Development and Learning
Emotion	Individual Variations
Vocational Applications	Applications of Psychological Science

SAMPLE OUTLINE FOR A **COMPLETE** COURSE

This outline includes all twenty standard areas or units.

The sequence can be adjusted depending on student interest or teacher preference.

UNIT	DOMAIN
Perspectives in Psychological Science	Scientific Inquiry
Research Methods, Measurement, and Statistics	Scientific Inquiry
Life Span Development	Development and Learning
Biological Bases of Behavior	Biopsychology
Sensation and Perception	Biopsychology
Motivation	Individual Variations
Emotion	Individual Variations
Health	Applications of Psychological Science
Learning	Development and Learning
Memory	Cognition
Consciousness	Biopsychology
Thinking	Cognition
Language Development	Development and Learning
Personality	Individual Variations
Intelligence	Cognition
Psychological Disorders	Individual Variations
Treatment of Psychological Disorders	Applications of Psychological Science
Social Interactions	Sociocultural Context
Sociocultural Diversity	Sociocultural Context
Vocational Applications	Applications of Psychological Science

LESSON PLANNING SHEET

Standard Area (Unit Name):

Domain:

Targeted Content Standard(s):

Targeted Performance Standard(s):

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Performance Objective:

Materials Needed:

Notes:

SAMPLE LESSON PLANNING SHEET

Standard Area (Unit Name):

Health

Domain:

Applications of Psychological Science

Targeted Content Standard(s):

Content Standard: Stress and Coping

Targeted Performance Standard(s):

1.2 Identify and explain potential sources of stress

A. Teaching strategy to be used: Discussion of stress, its sources, and how it affects health

B. Performance indicator (assessment technique): relevant activity

C. Estimated time required: One period of class time and out-of-class assignment

Materials Needed:

Materials for activity

Notes:

ACHIEVING PROFICIENCY IN TEACHING HIGH SCHOOL PSYCHOLOGY

Teacher certification in psychology should be addressed by each school district in which psychology is taught. The first step for each district is to determine whether or not present teachers of psychology meet the certification requirements for its state board of education.

A survey of certification requirements for psychology teachers reveals a wide variation from state to state. Some states have no specific requirements, and others require a degree or certification in psychology. The purpose of this document is not to supersede previous state board of education mandates. Rather, it is intended to inform:

- Teachers and future teachers who are trying to determine whether they have the recommended background in the discipline necessary to teach a scientific psychology course
- School districts preparing to offer their first psychology courses
- School districts seeking to provide germane in-service opportunities for their experienced psychology teachers

As of mid-2011, the APA is in the process of developing a policy document entitled *Guidelines for Preparing High School Psychology Teachers: Course-Based and Standards-Based Approaches* that provides models for teacher preparation based upon the *National Standards*. APA advocates that state departments of education and teacher preparation programs use or adopt these models for preparing new high school psychology teachers. The *Guidelines for Preparing High School Psychology Teachers* is expected to be published in 2012 and can be accessed online through the APA Office of Precollege and Undergraduate Education website (<http://www.apa.org/ed/precollege/index.aspx>).

The ever-changing nature of psychology requires continuing education for all high school psychology teachers. Many teachers may be deficient in one or more of the domains listed in this document. Teachers who are not as well prepared in these areas can take college courses aimed at eliminating the particular deficiency or enroll in one of the many psychology teacher workshops held throughout the country. For more information about workshops or professional development opportunities for high school teachers, contact the Education Directorate of the American Psychological Association at: 750 First Street, NE, Washington, DC, 20002-4242; (800) 374-2721 or (202) 336-5500; or education@apa.org.

APPENDIX C — RESOURCES

High school psychology teachers can join APA as High School Teacher Affiliates. High School Teacher Affiliates automatically become members of the APA Teachers of Psychology in Secondary Schools (TOPSS). The mission of TOPSS is to promote introductory and advanced high school psychology, meet curricular needs of secondary school teachers, and provide opportunities for high school students to be recognized and rewarded for their academic excellence. Benefits of teacher affiliate status with APA include access to TOPSS unit lesson plans; yearly subscriptions to the *Psychology Teacher Network* quarterly newsletter, the *Educator* newsletter, the monthly *APA Monitor on Psychology*, and the renowned *American Psychologist* journal; discounts on APA books and journals; access to online databases; discounted registration fees to the annual APA convention; and multiple opportunities to network with other psychology teachers and professionals. For information on joining APA as a High School Teacher Affiliate, contact the APA Membership Department at 750 First Street, NE, Washington, DC, 20002; or by e-mail (membership@apa.org) or telephone at (800) 374-2721; or visit the APA website at <http://www.apa.org/membership/hs-teacher/index.aspx>.

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The TOPSS website (<http://www.apa.org/ed/precollege/topss/index.aspx>) is designed for high school psychology teachers. The site contains:

- Information on TOPSS, including how to join
- Items to assist teachers of psychology in their classroom planning (e.g., TOPSS unit lesson plans, *National Standards for High School Psychology Curricula*)
- Items for professional growth and development, including upcoming workshops and conferences for high school psychology teachers
- A listing of current members of the TOPSS Committee
- Teacher resources, including PowerPoint programs and slides for psychology teachers
- A Speakers Bureau to enable teachers to find and contact local psychologists
- Current and past issues of the *Psychology Teacher Network* newsletter
- Information on involving high school students in research
- Information on a project to recruit ethnic minority students into psychology
- Scholarship competitions for high school students

In addition, the following resources for teachers and interested policymakers have been compiled and are available through the APA TOPSS website at <http://www.apa.org/education/k12/national-standards.aspx>:

- Popular books on psychology
- Psychology-related videos and DVDs
- Resources for high school psychology teachers
- Psychology-related software available from publishers

ELECTRONIC MAILING LISTS (LISTSERVS)

The following lists are of particular interest to psychology teachers:

- **Psych-News** is designed for people interested in the teaching of psychology at the high school level. Most of the list members are high school psychology teachers, although many college and university teachers are members as well. To join Psych-News, send the message “subscribe Psych-News your name” to the address “listserv@list-serv.uh.edu”
- **TIPS, Teaching in the Psychological Sciences** is designed more for teachers at the college/ university level. Many high school teachers are members, but the discussions usually center on post-high school education. Please be aware that TIPS can generate a large amount of e-mail. If your service provider limits the size of your mailbox, you may not want to subscribe to TIPS. To join TIPS, send the message “subscribe TIPS your name” to the address “listserv@fre.fsu.umd.edu”
- **PsychTeacher** is an electronic mailing list sponsored by the Society for the Teaching of Psychology (APA Division Two) and designed for both the high school and the college/ university level. The electronic mailing list is monitored, which means each message is reviewed before being sent to the list. To subscribe to PsychTeacher, send the message “subscribe PsychTeacher yourfirstname yourlastname” to the address “listserv@list.kennesaw.edu” Be sure not to include anything else in the body of the message (e.g., a signature file at the end of the message). Or, you can go to the list web page and click on the option of joining the list: <http://list.kennesaw.edu/archives/psychteacher.html>
- The College Board sponsors an **Electronic Discussion Group for Advanced Placement Psychology Teachers**. For information on how to subscribe, visit http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2265.html
- **APA TOPSS** also has an electronic mailing list for high school psychology teachers. To subscribe to the TOPSS electronic mailing list, send the message “subscribe TOPSS listserv” to the address “education@apa.org”

NOTES:

