ASSESSMENT OF OUTCOMES OF THE INTRODUCTORY COURSE IN PSYCHOLOGY

AMERICAN
PSYCHOLOGICAL
ASSOCIATION

APA BOARD OF EDUCATIONAL AFFAIRS

WORKING GROUP ON
INTRODUCTORY PSYCHOLOGY ASSESSMENT

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Working Group on Introductory Psychology Assessment

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EXECUTIVE SUMMARY

The American Psychological Association's (APA's) Board of Educational Affairs (BEA) Working Group on Strengthening the Common Core of the Introductory Psychology Course (henceforth the Common Core Working Group) examined the current scope of the Introductory Psychology course and provided five major recommendations relating to its content and delivery. In particular, the Common Core Working Group (APA, 2014) recommended the development of a plan for a universal assessment of Introductory Psychology. The BEA subsequently commissioned a second working group to address the need for a universal assessment of the Introductory Psychology course and charged it with "developing a plan and identifying the necessary steps to create a universal assessment to measure introductory psychology students' mastery of content knowledge and skills." The five members of this Working Group on Introductory Psychology Assessment (henceforth the Working Group) included psychology instructors teaching at 4-year, 2-year, and high-school institutions who were either teacher affiliates or members of APA. This document serves as their final report and includes their recommendations.

The Working Group began by considering the multiple purposes that the Introductory Psychology course typically serves on a college campus and identified three primary ones: (a) as a gateway course to the psychology major, (b) as a general education service course, and (c) as a vehicle (often underutilized) for educating the public about the discipline of psychology. Thus, a comprehensive strategy for assessing the Introductory Psychology course needs to address each of these purposes. A clear articulation of the purpose of the course, along with suggested methods for measuring its outcomes, will provide both departments and institutions with the tools necessary to meet calls for accountability.

Measuring student learning outcomes of the Introductory Psychology course has not traditionally been a priority for departments of psychology. Introductory Psychology is typically a campus service course involving large sections of students, and assessing student learning in those large sections both poses a signif-

icant challenge and is a low-reward enterprise. Although reliable and valid multimethod measures would be ideal for such an undertaking, their use would be both unlikely and unwieldy.

The Working Group acknowledges that the most expedient product for assessing the outcomes of the Introductory Psychology course would be a nationally standardized instrument. Such a standardized, reliable, and valid measure would be the gold standard for any assessment, and it would provide departments, colleges, and universities with a common metric for evaluating outcomes of the introductory course. Comprehensive standardized measures of the Introductory Psychology course already exist (e.g., the Advanced Placement Introductory Psychology exam from the College Board's College Level Examination Program), yet they are not normed for students completing the course in a college setting. A nationally standardized instrument would also provide benchmarks for comparing success in achieving student learning outcomes across sections and institutions.

The Working Group concedes that creating a sound assessment instrument would be time consuming, expensive, and beyond the scope of its charge from the BEA. In addition to the pragmatic challenges, a unique set of challenges is presented by the variable and autonomous nature of campuses and academic units. Nonetheless, the fact remains that the creation of a national assessment measure would solve many problems for the field of psychology and undergraduate education in general (American Council on Education, 2010). After weighing the multiple considerations involved in assessment of the Introductory Psychology course, the Working Group advances the following recommendations:

1. We recommend that APA pursue an investment in developing a nationally standardized instrument designed to measure the student learning outcomes of the Introductory Psychology course. Such an instrument could be an existing instrument renormed and standardized on students completing the Introductory Psychology course in representative college settings.

2. We recommend that departments systematically use learning outcomes for the Introductory Psychology course based on the framework provided by the BEA Working Group on Strengthening the Common Core of the Introductory Psychology Course (APA, 2014) and the *APA Guidelines for the Undergraduate Psychology Major: Version 2.0* (APA, 2013).

3. We recommend using both standardized instruments to measure students' content knowledge and embedded assessments to evaluate the skills that they develop in the context of the general education curriculum. These skills are clearly articulated in the Common Core Working Group's report (APA, 2014) and are consistent with the LEAP (Liberal Education and America's Promise) recommendations of the Association of American Colleges and Universities (n.d.-a).

4. We recommend the creation of a resource similar to the *Assessment CyberGuide for Learning Goals and Outcomes* (Pusateri, Halonen, Hill, & McCarthy, 2009) to help Introductory Psychology instructors better assess their courses by shoring up existing assessments using best practices and backward design principles.

5. We recommend the development of a clearinghouse to share Introductory Psychology assessments and to provide needed comparisons and baseline data on learning outcomes in Introductory Psychology.

In support of these recommendations, we provide an overview of outcomes that should be measured and suggestions for campus-based assessment activities. Specifically, we suggest clearly articulating student learning outcomes by employing embedded assessments, and we outline ways in which assessment data can be used by students, faculty, departments, and colleges and universities.

INTRODUCTION AND CONTEXT OF THE CHARGE TO THE WORKING GROUP

After reflecting on more than a century of scholarship that defined the highly diverse discipline of psychology, the American Psychological Association's (APA's) Board of Educational Affairs (BEA) concluded that the discipline's current range of content was not adequately reflected in the textbooks typically used in the Introductory Psychology course. A review of existing introductory texts suggested that the introductory course included approximately 16 content-based domains of psychology and that the vast subject matter in the evolving discipline of psychology might be too broad to be covered in a single-semester introductory course. Accordingly, the BEA charged its Working Group on Strengthening the Common Core of the Introductory Psychology Course (i.e., the Common Core Working Group) to examine the current scope of the Introductory Psychology course and provide recommendations to define a common core for its content.

In 2014 the Common Core Working Group, rather than providing an exhaustive specification of content, recommended a more parsimonious and integrative approach to the introductory course content spanning four themes (Cultural and Social Diversity; Ethics; Variations in Human Functioning; and Applications) and five overarching domains. The scientific foundation of the discipline (Research Methods) underlies the domains, which are coupled with an integrated body of content-based literature organized into five pillars of psychology (Biological; Cognitive; Development; Social and Personality; and Mental and Physical Health). The Common Core Working Group (APA, 2014) also recommended that a subsequent step be taken to develop a plan for a universal assessment of the Introductory Psychology course. Therefore, the BEA commissioned a second working group to address the need for a universal assessment of the Introductory Psychology course. Specifically, the BEA charged the Working Group on Introduc-

tory Psychology Assessment to make recommendations for creating a national assessment plan for introductory psychology. This new task force will be charged with developing a plan and identifying the necessary steps to create a universal assessment to measure introductory psychology students' mastery of content knowledge and skills. This document serves as the final report, including the recommendations, of the BEA Working Group on Introductory Psychology Assessment.

As we considered the BEA charge, it seemed the most expedient product would be a nationally standardized assessment that could be used to assess the outcomes of the Introductory Psychology course. A nationally standardized instrument would provide faculty, departments, and institutions with a common metric for evaluating outcomes of the introductory course in psychology. Such an instrument would also provide a set of standards for comparing success in achieving student learning outcomes across sections and institutions.

The Advanced Placement (AP) Introductory Psychology exam from the College Board's College Level Examination Program can arguably be described as an existing measure of the outcomes of Introductory Psychology that is highly reliable and valid. However, the challenges of creating an instrument specifically normed for students enrolled in Introductory Psychology at the college level are daunting and multifaceted. First, the development of such an instrument would be both time consuming and expensive. For example, as reported by GuideStar (n.d.), the Educational Testing Service, the world's largest nonprofit testing company, generates more than $1 billion in revenue each year, and a significant amount of that revenue must go toward developing its outcomes-based assessment products. In addition to the pragmatic challenges (e.g., the cost) of developing a high-quality college-level measure, more obstacles are presented by the variable and autonomous nature of college campuses and aca-

demic units. In fact, scholars (e.g., APA, 2010b, 2013; Dunn et al., 2010; Halpern, 2010) have long supported autonomy for undergraduate programs in psychology, which must work within their own campus contexts. Although programs should be autonomous in curriculum matters, we believe it is possible to develop a standardized instrument that allows for autonomy while maintaining a common set of learning outcomes. However, such an instrument would require a significant investment, and such an activity was beyond the scope of the charge to the Working Group on Introductory Psychology Assessment. We recommend that APA pursue the development of a nationally standardized instrument as a long-term strategy for addressing the national assessment plan for Introductory Psychology. In the interim, we offer campus-based solutions for addressing the current assessment challenges.

SCOPE OF THE INTRODUCTORY PSYCHOLOGY COURSE

The Common Core Working Group (APA, 2014) offered an innovative five-pillar model for conceptualizing the scope of the introductory course across contexts (i.e., high school, 2-year colleges, and 4-year institutions). Clearly defining what one is attempting to measure is a critical first step in developing recommendations for any type of assessment. Therefore, we began by considering the multiple purposes that the Introductory Psychology course typically serves on a college campus. We identified three primary purposes: (a) as a gateway course to the psychology major, (b) as a general education service course, and (c) as a (perhaps underutilized) vehicle for educating the public about the discipline of psychology.

INTRODUCTORY PSYCHOLOGY AS A GATEWAY TO THE MAJOR

Many faculty members believe that the Introductory Psychology course is a foundation course for students majoring in psychology. Hence, the vast majority of undergraduate programs require the introductory course as a prerequisite to upper division coursework for the major (Norcross et al., 2016; Stoloff et al., 2010). Yet, it is unlikely that such a broad survey course provides students with an enduring, detailed understanding of the discipline. Any assessment of student learning outcomes in the introductory course will by necessity reflect a broad understanding of the material.

How well does the Introductory Psychology course provide the foundation for the future development of psychology knowledge and skills? As a prerequisite to upper-level courses, most introductory courses tend to focus on knowledge-based or content goals fairly well. Establishing agreement on a smaller

domain of psychological content will enable development of an assessment that addresses how well the introductory course provides the foundation for future learning in the major and to what extent the learning goals are standardized within departments and across institutions.

Yet, standardization of content and syllabi can prove to be a divisive topic, seemingly at odds with traditions of academic freedom, individual creativity, course ownership, and professor autonomy. At the same time, shared course goals and collaboration enable faculty to create a course that may serve as a foundation for additional study in the discipline. The sheer magnitude of the course content, the number of students (many of whom do not intend to major in psychology) taking the introductory course, the practice of utilizing contingent faculty to teach multiple sections, and the increased regulatory demands of accreditors are all persuasive arguments for some level of standardization in the Introductory Psychology course. Such is already the case for introductory courses in many other scientific disciplines (e.g., chemistry, mathematics, biology).

To balance professor autonomy and disciplinary standardization, we suggest a minimum number of foundational areas to be covered for each course and a common set of learning outcomes as the basis for their assessment. Departments may then choose to further standardize the course beyond a common set of shared content areas. For example, common assignments and assessment tools can be adapted for content modules that address overall outcomes for the major (e.g., critical thinking, ethics, professional development, intercultural competence, communication). These overarching goals of the psychology major may also dovetail with many common goals of the general education curriculum.

How should overall learning outcomes of the major be included in the course that will serve as a foundation for the major? The *APA Guidelines for the Undergraduate Psychology Major: Version 2.0* (APA, 2013) recommends five explicit goals for students majoring in psychology: (1) knowledge base in psychology; (2) scientific inquiry and critical thinking; (3) ethical and social responsibility; (4) communication; and (5) professional development. We suggest that departments use these five goals as a guide for developing high-level student learning outcomes that can be used as the basis for designing assessments of student learning in the introductory course.

INTRODUCTORY PSYCHOLOGY AS A GENERAL EDUCATION SERVICE COURSE

The Introductory Psychology course introduces the scientific method, provides a broad overview of the discipline's content, and perhaps piques the interest of students who might be interested in critically thinking about behavior. However, it is unlikely that a course that is also offered as a general education elective results in a comprehensive foundation for the psychology major. If the course is designed to provide an overview of the discipline, then an assessment of learning outcomes should be conducted at a global level rather than measuring detailed knowledge that would otherwise serve as a proxy for course credit (e.g., such as provided by the AP Introductory Psychology exam).

The Working Group adopted the perspective that the Introductory Psychology course provides a broad overview of the discipline to undergraduates in all areas of study. We also adopted the position that the introductory course, and concomitant assessment of the course, could provide evidence of the development of critical thinking.

The Introductory Psychology course is most often taken by undergraduates to meet the requirements for the general education core of an undergraduate degree; in other words, it is a service course offered for the larger mission of the university. In all likelihood, this course will be the only exposure that college students graduating with a host of degrees unrelated to psychology will have to the discipline.

In addition to providing students with the basic understanding of the scientific method, Introductory Psychology typically includes an overview of the range of topics that the discipline of psychology comprises. The sheer volume of the individual content areas presented in an introductory course can be overwhelming. However, the Common Core Working Group offered a more parsimonious model for organizing content that can be broadly characterized using the five pillars: Biological, Cognitive, Development, Social and Personality, and Mental and Physical Health (APA, 2014).

Introductory Psychology also offers great potential for fulfilling the general education goal of developing critical thinking skills. The course has the potential to effect positive change in individuals, societies, and humanity as a whole by dispelling myths and misconceptions about a host of important everyday behavioral concepts. At the same time, it is possible to measure improvements in critical thinking that are likely to occur as a result of completing a single course in Introductory Psychology.

The purpose of general education courses, or the "core curriculum," is to produce a well-educated individual. Defining what a well-educated individual is and operationalizing what knowledge, skills, and values should be acquired as a result of an educational experience are complex endeavors. Institutions typically develop their own set of general education outcomes, informed by their unique cultural and sociopolitical contexts. The American Association of Colleges and Universities (AAC&U) broadly defines the general outcomes of a liberal education as "empowering" and equipping graduates with abilities that help navigate "complexity, diversity and change" through the development of social responsibility, intellectual skills, and practical application of knowledge (AAC&U, n.d.-c). This endeavor is accomplished through providing educational breadth and depth, with breadth represented by several courses in the core curriculum and depth expressed through a major in a discipline. The data and constructs developed

by organizations such as the AAC&U can assist us in examining the role of Introductory Psychology in service to general education.
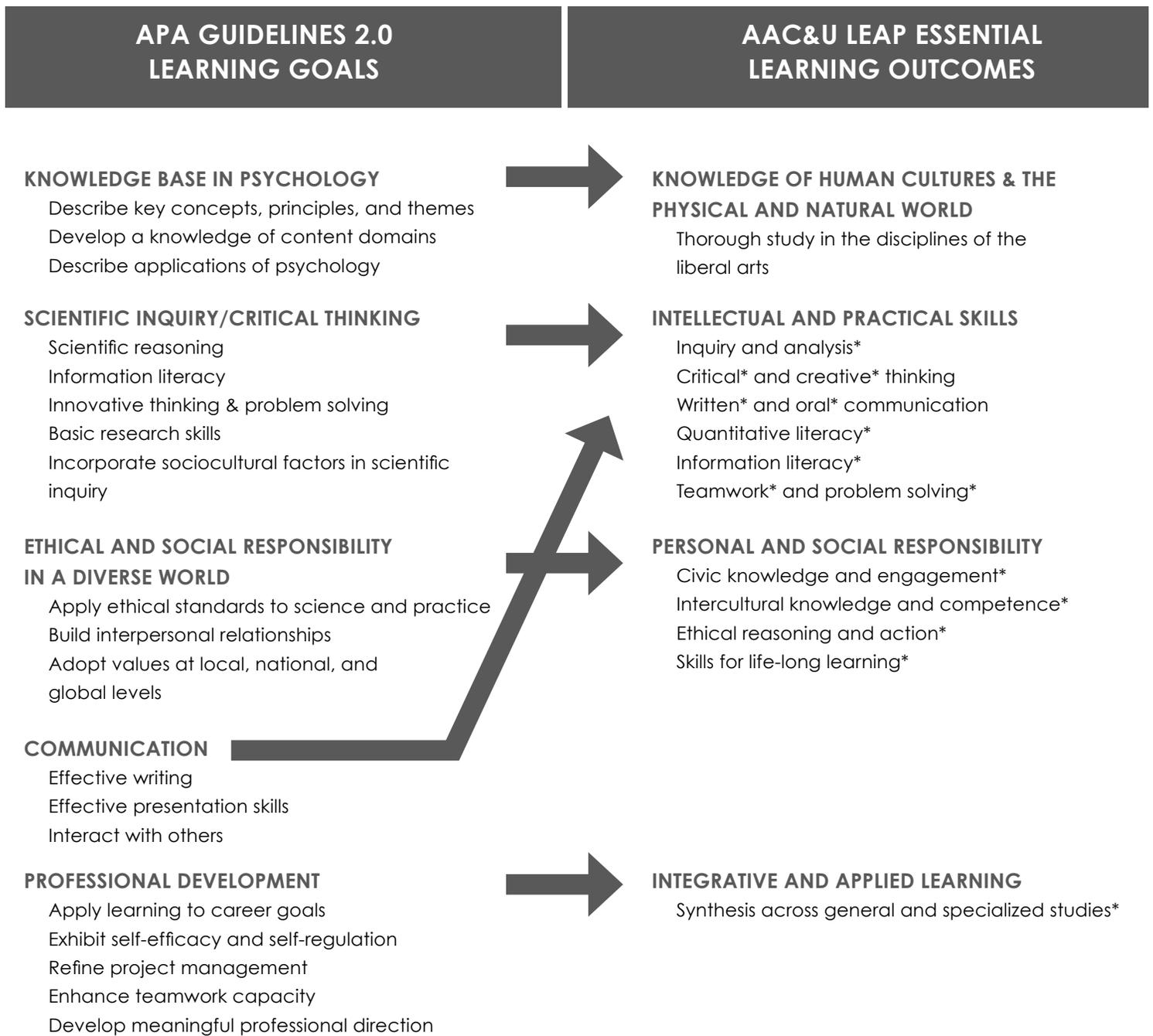
In 2005, the AAC&U embarked on a project to define the essential learning outcomes of a liberal education through its Liberal Education and America's Promise initiative, also known as LEAP (AAC&U, n.d.-a). This initiative recommended that liberal education curricula focus on four outcome areas: knowledge of human cultures and the physical and natural world; intellectual and practical skills; personal and social responsibility; and integrative and applied learning.

Each general outcome is accompanied by a set of measurable objectives and pedagogical implications. The AAC&U (n.d.-b) also developed rubrics to accompany its liberal education learning outcomes, which can be accessed at http://www.aacu.org/value-rubrics. The rubrics measure 16 competencies. These outcomes and competencies can be linked with those from the *APA Guidelines for the Undergraduate Psychology Major: Version 2.0* (APA, 2013; see **Figure 1**). Although the discipline-specific outcomes for the undergraduate major in psychology (knowledge base in psychology, scientific inquiry and critical thinking, ethical and social responsibility in a diverse world, communication, and professional development) do not perfectly align with the LEAP essential outcomes for the liberal arts, there are significant areas of overlap. Such robust overlap highlights the possibility of standardized assessment on common goals/outcomes for Introductory Psychology as a general education course.

In addition to the AAC&U's LEAP initiative, the Association of General and Liberal Studies (AGLS) embraces a core mission of enhancing the general education experience. In an attempt to identify the areas of convergence of the most commonly espoused student learning outcomes of general education nationally, the AGLS analyzed the content of learning outcomes from the websites of six major regional accrediting bodies in the United States (i.e., the Middle States Commission on Higher Education,

FIGURE 1. AAC&U AND *APA GUIDELINES 2.0* LEARNING OUTCOMES

APA GUIDELINES 2.0 LEARNING GOALS	AAC&U LEAP ESSENTIAL LEARNING OUTCOMES
KNOWLEDGE BASE IN PSYCHOLOGY Describe key concepts, principles, and themes Develop a knowledge of content domains Describe applications of psychology	**KNOWLEDGE OF HUMAN CULTURES & THE PHYSICAL AND NATURAL WORLD** Thorough study in the disciplines of the liberal arts
SCIENTIFIC INQUIRY/CRITICAL THINKING Scientific reasoning Information literacy Innovative thinking & problem solving Basic research skills Incorporate sociocultural factors in scientific inquiry	**INTELLECTUAL AND PRACTICAL SKILLS** Inquiry and analysis* Critical* and creative* thinking Written* and oral* communication Quantitative literacy* Information literacy* Teamwork* and problem solving*
ETHICAL AND SOCIAL RESPONSIBILITY IN A DIVERSE WORLD Apply ethical standards to science and practice Build interpersonal relationships Adopt values at local, national, and global levels	**PERSONAL AND SOCIAL RESPONSIBILITY** Civic knowledge and engagement* Intercultural knowledge and competence* Ethical reasoning and action* Skills for life-long learning*
COMMUNICATION Effective writing Effective presentation skills Interact with others	
PROFESSIONAL DEVELOPMENT Apply learning to career goals Exhibit self-efficacy and self-regulation Refine project management Enhance teamwork capacity Develop meaningful professional direction	**INTEGRATIVE AND APPLIED LEARNING** Synthesis across general and specialized studies*

Note. AAC&U = American Association of Colleges and Universities; LEAP = Liberal Education and America's Promise.
*AAC&U has created rubrics for these outcomes, available here: http://www.aacu.org/value/rubrics

the New England Association of Schools and Colleges, the North Central Association of Colleges and Schools, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges). All six accrediting associations endorsed only one common general education competency: computer/technological competency (ironical-ly, the one outcome not specifically addressed by LEAP or the *APA Guidelines for the Undergraduate Psychology Major: Version 2.0*).

Taken together, the LEAP recommendations and the AGLS results provide a consensus view on learning outcomes of general education, many of which also interface with the outcomes of the psychology major. Thus, choosing to assess

Introductory Psychology outcomes that serve the dual purposes of the course as the gateway to the major and as a general education course will increase the utility of the assessment. The results of such an assessment could be used for both program reviews as well as institutional accreditation purposes. Assessment of the introductory course outcomes would seem to fall most naturally into the following skill areas: scientific reasoning/critical thinking, problem solving, communication, and possibly cultural awareness/diversity.

INTRODUCTORY PSYCHOLOGY AS A VEHICLE FOR PUBLIC EDUCATION

Beginning in 1996, APA launched a public education campaign to educate the public about the discipline of psychology. As a targeted, public relations initiative, the campaign provided the public with information about specific topics in psychology and health care. More recently, the campaign has been expanded to include a specific emphasis on psychology as a science (APA, n.d.). Although the formal campaign does not intersect with the largest potential audience (students enrolled in Introductory Psychology), the introductory course offers a promising vehicle for educating the larger public about the discipline, and a national assessment of the course would provide evidence of success in meeting the goals of such a campaign.

Psychology has an extraordinary opportunity to educate the public about the true nature of the discipline through the enrollment of the more than 1 million students (APA, 2014; Steuer & Ham, 2008) who take the Introductory Psychology course each year. To devise a national assessment plan for the introductory course, we also need to consider how instructors deliver the course to students who will eventually compose the citizenry—that is, to graduates with a variety of college degrees. First and foremost, it is important that the discipline be recognized as the scientific study of behavior. The scientific method, whether presented in the biological sciences or the psychological sciences, provides an evidence-based tool for solving complex problems. Any assessment of the Introductory Psychology course should include some measure of an individual's ability to apply the scientific method using empirical tools.

CONSTRUCTING AN INSTRUMENT TO MEASURE OUTCOMES OF INTRODUCTORY PSYCHOLOGY

Researchers, accrediting bodies, organizations, and individual constituents have called for increasing accountability across the educational landscape, yet measuring student learning outcomes of an Introductory Psychology course has typically not been a priority for departments of psychology. The dearth of attention to this issue may be attributable to the confusing multitude of purposes the introductory course serves, to the large number of instructors teaching multiple sections of the course, to the low priority accorded to the introductory course in promotion and tenure decisions, and to other considerations. Regardless, accrediting bodies, the public, and multiple stakeholders advocate for a systematic evaluation of student learning.

A nationally standardized, reliable, and valid measure is the gold standard for any assessment instrument. In fact, the AP Introductory Psychology exam reflects this standard as a well-developed measure of high school psychology courses. While the content tested is similar to that delivered in a college-level Introductory Psychology course, the test would require restandardization and renorming for routine use on the college level. Although this is one viable solution, the cost of the exam ($92.00 per student in 2016) would likely be prohibitive for use on individual campuses. It would also be necessary to work with the Educational Testing Service to make such an adaptation. In other words, it would be expensive to develop a second instrument to measure the content-based student learning outcomes of the Introductory Psychology course. Until or if such a sound standardized measure becomes available, we recommend that departments apply sound measurement principles to existing assessments already used for the introductory course.

Earlier we identified three primary elements of the Introductory Psychology course—scientific method, content knowledge, and critical thinking—as out-

comes that students should demonstrate at the conclusion of the course. Establishing student learning outcomes is the first step in developing any assessment (Wiggins & McTighe, 1998).

Researchers have examined student learning outcomes in Introductory Psychology using a sample of syllabi and self-reported surveys completed by faculty from across the nation. Using the first iteration of the *APA Guidelines for the Undergraduate Psychology Major* (APA, 2007) as a framework, Homa and colleagues (2013) calculated which of the 10 APA goals instructors included in their syllabi. More than half of the syllabi contained objectives specific to the science and application of psychology. Sixty-six percent included the knowledge base, 60% included scientific inquiry and critical thinking, 10% included ethical and social responsibility in a diverse world, 7% included communication, and 4% included professional development as a goal. Almost 20% of course syllabi did not contain any student learning outcomes.

When asked about the practice of using student learning outcomes, one third of the faculty reported that their departments or institutions required inclusion of student learning outcomes for Introductory Psychology, with scientific inqui-

ry and critical thinking and content knowledge being the most regulated objectives (Homa et al., 2013). When asked if they believed there should be a standard way to teach Introductory Psychology, 60.4% of the faculty responded "yes." When asked who is best suited to unify or regulate the teaching of Introductory Psychology, 70.6% chose psychology departments, 19.1% identified APA, 1.5% chose a university or college, and 2.6% reported "no one."

In order to facilitate national comparisons of the Introductory Psychology course, it would be preferable if all courses reflected student learning outcomes from a common set. To aid departments in selecting a set of common objectives for the Introductory Psychology course, the *APA Guidelines for the Undergraduate Psychology Major: Version 2.0* (*APA Guidelines 2.0*; APA, 2013) can be used to derive a common set of established student learning outcomes. **Table 1** includes the higher order learning goals from the *APA Guidelines 2.0*, their accompanying student learning outcomes, and those student learning outcomes that are specific to Introductory Psychology (foundational indicators). Instructors or departments could have flexibility to determine which of these student learning outcomes fit their introductory course.

TABLE 1. STUDENT LEARNING OUTCOMES FOR INTRODUCTORY PSYCHOLOGY DERIVED FROM THE *APA GUIDELINES FOR THE UNDERGRADUATE MAJOR IN PSYCHOLOGY: VERSION 2.0*

LEARNING GOALS

GOAL 1: KNOWLEDGE BASE IN PSYCHOLOGY
GOAL 2: SCIENTIFIC INQUIRY AND CRITICAL THINKING
GOAL 3: ETHICAL AND SOCIAL RESPONSIBILITY IN A DIVERSE WORLD
GOAL 4: COMMUNICATION
GOAL 5: PROFESSIONAL DEVELOPMENT

STUDENT LEARNING OUTCOMES

1.1 Describe key concepts, principles, and overarching themes in psychology
1.2 Develop a working knowledge of psychology's content domains
1.3 Describe applications of psychology

2.1 Use scientific reasoning to interpret psychological phenomena

2.2 Demonstrate psychology information literacy
2.3 Engage in innovative and integrative thinking and problem solving
2.4 Interpret, design, and conduct basic psychological research
2.5 Incorporate sociocultural factors in scientific inquiry

3.1 Apply ethical standards to evaluate psychological science and practice
3.2 Build and enhance interpersonal relationships
3.3 Adopt values that build community at local, national, and global levels

4.1 Demonstrate effective writing for different purposes
4.2 Exhibit effective presentation skills for different purposes
4.3 Interact effectively with others

5.1 Apply psychological content and skills to career goals

5.2 Exhibit self-efficacy and self-regulation

5.3 Refine project-management skills

5.4 Enhance teamwork capacity

5.5 Develop meaningful professional direction for life after graduation

FOUNDATIONAL INDICATORS SPECIFIC TO INTRODUCTORY PSYCHOLOGY

1.1a Use basic psychological terminology, concepts, and theories in psychology to explain behavior and mental processes

1.1b Explain why psychology is a science with the primary objectives of describing, understanding, predicting, and controlling behavior and mental processes

1.1c Interpret behavior and mental processes at an appropriate level of complexity

1.1d Recognize the power of the context in shaping conclusions about individual behavior

1.1e Identify fields other than psychology that address behavioral concerns

1.2a Identify key characteristics of major content domains in psychology (e.g., cognition and learning, developmental, biological, and sociocultural)

1.2b Identify principal methods and types of questions that emerge in specific content domains

1.2c Recognize major historical events, theoretical perspectives, and figures in psychology and their link to trends in contemporary research

1.2d Provide examples of unique contributions of content domain to the understanding of complex behavioral issues

1.2e Recognize content domains as having distinctive sociocultural origins and development

1.3a Describe examples of relevant and practical applications of psychological principles to everyday life

1.3b Summarize psychological factors that can influence the pursuit of a healthy lifestyle

1.3c Correctly identify antecedents and consequences of behavior and mental processes

1.3d Predict how individual differences influence beliefs, values, and interactions with others, including the potential for prejudicial and discriminatory behavior in oneself and others

2.1a Identify basic biological, psychological, and social components of psychological explanations (e.g., inferences, observations, operational definitions, interpretations)

2.1b Use psychology concepts to explain personal experiences and recognize the potential for flaws in behavioral explanations based on simplistic, personal theories

2.1c Use an appropriate level of complexity to interpret behavior and mental processes

2.1d Ask relevant questions to gather more information about behavioral claims

2.1e Describe common fallacies in thinking (e.g., confirmation bias, post hoc explanations, implying causation from correlation) that impair accurate conclusions and predictions

2.2a Read and summarize general ideas and conclusions from psychological sources accurately

2.2b Describe what kinds of additional information beyond personal experience are acceptable in developing behavioral explanations (i.e., popular press reports vs. scientific findings)

2.2c Identify and navigate psychology databases and other legitimate sources of psychology information

2.2d Articulate criteria for identifying objective sources of psychology information

2.2e Interpret simple graphs and statistical findings

2.3a Recognize and describe well-defined problems

2.3b Apply simple problem-solving strategies to improve efficiency and effectiveness

2.3c Describe the consequences of problem-solving attempts

2.4a Describe research methods used by psychologists including their respective advantages and disadvantages

2.4b Discuss the value of experimental design (i.e., controlled comparisons) in justifying cause–effect relationships

2.4c Define and explain the purpose of key research concepts that characterize psychological research (e.g., hypothesis, operational definition)

2.4d Replicate or design and conduct simple scientific studies (e.g., correlational or two-factor) to confirm a hypothesis based on operational definitions

2.4e Explain why conclusions in psychological projects must be both reliable and valid

2.4f Explain why quantitative analysis is relevant for scientific problem solving

2.4g Describe the fundamental principles of research design

2.5a Relate examples of how a researcher's value system, sociocultural characteristics, and historical context influence the development of scientific inquiry on psychological questions

2.5b Analyze potential challenges related to sociocultural factors in a given research study

2.5c Describe how individual and sociocultural differences can influence the applicability/ generalizability of research findings

2.5d Identify under what conditions research findings can be appropriately generalized

3.1a Describe key regulations in the APA Ethics Code for protection of human or nonhuman research participants

3.1b Identify obvious violations of ethical standards in psychological contexts

3.1c Discuss relevant ethical issues that reflect principles in the APA Ethics Code

3.1d Define the role of the institutional review board (IRB)

3.2a Describe the need for positive personal values (e.g., integrity, benevolence, honesty, respect for human dignity) in building strong relationships with others

3.2b Treat others with civility

3.2c Explain how individual differences, social identity, and worldview may influence beliefs, values, and interaction with others and vice versa

3.2d Maintain high standards for academic integrity, including honor code requirements

3.3a Identify aspects of individual and cultural diversity and the interpersonal challenges that often result from diversity and context

3.3b Recognize potential for prejudice and discrimination in oneself and others

3.3c Explain how psychology can promote civic, social, and global outcomes that benefit others

3.3d Describe psychology-related issues of global concern (e.g., poverty, health, migration, human rights, rights of children, international conflict, sustainability)

3.3e Articulate psychology's role in developing, designing, and disseminating public policy

3.3f Accept opportunity to serve others through civic engagement, including volunteer service

4.1a Express ideas in written formats that reflect basic psychological concepts and principles

4.1b Recognize writing content and format differ based on purpose (e.g., blogs, memos, journal articles) and audience

4.1c Use standard English, including generally accepted grammar

4.1e Recognize and develop overall organization (e.g., beginning, development, ending) that fits the purpose

4.1f Interpret quantitative data displayed in statistics, graphs, and tables, including statistical symbols in research reports

4.2e Pose questions about psychological content

4.3b Recognize that culture, values, and biases may produce misunderstandings incommunication

4.3e Respond appropriately to electronic communications

5.1a Recognize the value and application of research and problem-solving skills in providing evidence beyond personal opinion to support proposed solutions

5.1b Identify range of possible factors that influence beliefs and conclusions

5.1c Expect to deal with differing opinions and personalities in the college environment

5.1d Describe how psychology's content applies to business, health care, educational, and other workplace settings

5.1e Recognize and describe broad applications of information literacy skills obtained in the psychology major

5.1f Describe how ethical principles of psychology have relevance to non-psychology settings

5.2a Recognize the link between efforts in self-management and achievement

5.2b Accurately self-assess performance quality by adhering to external standards (e.g., rubric criteria, teacher expectations)

5.2c Incorporate feedback from educators and mentors to change performance

5.2d Describe self-regulation strategies (e.g., reflection, time management)

5.3a Follow instructions, including timely delivery, in response to project criteria

5.3b Identify appropriate resources and constraints that may influence project completion

5.3c Anticipate where potential problems can hinder successful project completion

5.3d Describe the processes and strategies necessary to develop a project to fulfill its intended purpose

5.5a Describe the types of academic experiences and advanced course choices that will best shape career readiness

5.5b Articulate the skill sets desired by employers who hire or select people with psychology backgrounds

5.5c Describe settings in which people with backgrounds in psychology typically work

5.5d Recognize the importance of having a mentor

ASSESSING SKILLS DEVELOPED IN INTRODUCTORY PSYCHOLOGY

The Working Group recommends that departments of psychology use the framework provided by the Common Core Working Group (APA, 2014) along with the student learning outcomes from the *APA Guidelines 2.0* (APA, 2013; listed here in Table 1) in developing department-wide assessments for the Introductory Psychology course. Using these student learning outcomes, a department can employ an agreed-upon set of measurement outcomes as the basis for assessing skills developed in the introductory course.

A necessary step in assessing outcomes is to identify an assessment methodology. One efficient method is a multiple-choice instrument administered at the conclusion of the course. A well-constructed standardized instrument is effective for measuring student learning. However, because the introductory course in psychology is typically a campus service course involving large sections (i.e., 50–500 students), assessing student learning is a significant challenge even when the instrument used is a multiple-choice exam. Many schools use brief instruments that are administered at the beginning and end of the course to obtain a measure of student learning. Such an instrument can be administered as a stand-alone measure or embedded in a common final examination across multiple sections. This approach may prove a realistic option given the large numbers of students enrolled in Introductory Psychology each year.

To evaluate skills in scientific reasoning and critical thinking, departments may also consider evaluating student learning outcomes using locally developed multimethod measures. Despite the fact that this approach does not contribute to a national assessment plan, is limited in reliability and validity, and is both unlikely and unwieldy, it does provide limited campus-based data regarding student learning. Such embedded assessments can be locally and reliably administered (e.g., exercises) to supplement the ubiquitous multiple-choice exams used across introductory courses today.

EMBEDDED ASSESSMENTS

Consistent with national trends (Sullivan, 2015), we offer examples of embedded assessments to assess student learning outcomes in the introductory course. We provide five exemplars that can be used to assess the skills developed in Introductory Psychology. We use the Research Methods foundation and the five content pillars from *Strengthening the Common Core of the Introductory Psychology Course* (APA, 2014) as the framework and link specific student learning outcomes from the *APA Guidelines 2.0* (APA, 2013) to that framework. Ultimately, we recommend creating a clearinghouse of embedded assessments that could be applied nationally.

Exemplar 1 is a class assignment that can be used in a moderately sized Introductory Psychology course delivered either in a face-to-face setting or online. The assignment is designed to assess content from the Cognitive pillar (cognition, memory, perception, learning, lifespan development, language). In this case, the focus is on the Applications theme (writing) rather than on specific content. Using the learning goals from the *APA Guidelines 2.0*, we provide a sample rubric to grade the assignment. As illustrat-

ed in the rubric, each paper would be graded on the nine foundational indicators with ratings ranging from "meets all expectations" to "does not meet expectations." Grades and feedback could be provided to students using the detailed rubric.
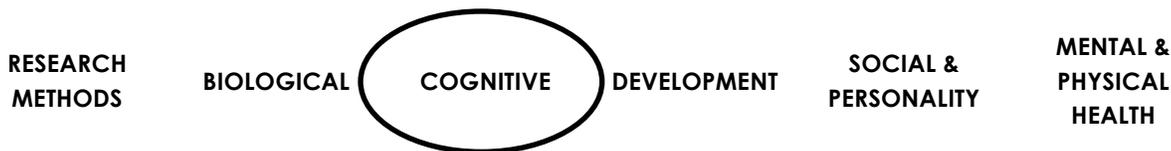
EXEMPLAR 1

Your friend has been struggling on her psychology exams. She can't figure out what she is doing wrong, so she approaches you for advice. In talking with the friend, you learn that:

- She sleeps, on average, 4 hours per night.
- All of her studying is done in one big cram session the evening before the exam.
- Her primary study technique is just rereading her notes and the chapters.
- She checks her phone about every 2 minutes for text messages or social media updates.

Using the information presented in class and your textbook, explain in an email to your friend why each of the items above does not help with learning and, in fact, may harm learning.

PILLAR:

RESEARCH METHODS   BIOLOGICAL   (COGNITIVE)   DEVELOPMENT   SOCIAL & PERSONALITY   MENTAL & PHYSICAL HEALTH

COMMON THEME:

CULTURAL & SOCIAL DIVERSITY   ETHICS   VARIATIONS IN HUMAN FUNCTIONING   (APPLICATIONS)

LEARNING GOALS:

GOAL 1: Knowledge Base in Psychology
GOAL 3: Ethical and Social Responsibility in a Diverse World

GOAL 4: Communication
GOAL 5: Professional Development

[Each element in the rubric may be weighted differently.]

Meets all expectations	Partially meets expectations	Does not meet expectations	FOUNDATIONAL INDICATORS
			1.1a Use basic psychological terminology, concepts, and theories in psychology to explain behavior and mental processes
			1.1c Interpret behavior and mental processes at an appropriate level of complexity
			3.2b Treat others with civility
			3.2d Maintain high standards for academic integrity, including honor code requirements
			4.1a Express ideas in written format that reflect basic psychological concepts and principles
			4.1b Recognize writing content and format differ based on purpose (e.g., blogs, memos, journal articles) and audience
			4.1c Use standard English, including generally accepted grammar
			4.1e Recognize and develop overall organization (e.g., beginning, development, ending) that fits the purpose
			5.3a Follow instructions, including timely delivery, in response to project criteria

Exemplar 2 reflects skills from the Research Methods pillar and two themes, Ethics and Applications. Students are asked to consider the ethical conduct of research and to apply the *Ethical Principles of Psychologists and Code of Conduct* (APA, 2010a). In this applied activity students are asked not only to use the five general ethical principles but also to provide examples that reflect violations of the principles. Using the grading rubric format illustrated in the previous exemplar, we provide seven grading criteria (foundational indicators) consistent with student learning outcomes from the *APA Guidelines 2.0* (APA, 2013; Table 1).

EXEMPLAR 2

The *Ethical Principles of Psychologists and Code of Conduct* (APA, 2010a) contains five general principles:

A. Beneficence and nonmaleficence
B. Fidelity and responsibility
C. Integrity
D. Justice
E. Respect for people's rights and dignity

Before continuing, read more about each of these principles here: **http://www.apa.org/ethics/code/index.aspx?item=3**

Create the most unethical psychological researcher you can imagine. Your researcher must have violated all five general ethical principles. Imagine that after meeting with the researcher's department chair, you have been asked by the chair to document the researcher's violations in writing. Give specific examples of the researcher's unethical behavior and for each example identify which ethical principle has been violated.

PILLAR:

(RESEARCH METHODS)   BIOLOGICAL   COGNITIVE   DEVELOPMENT   SOCIAL & PERSONALITY   MENTAL & PHYSICAL HEALTH

COMMON THEME:

CULTURAL & SOCIAL DIVERSITY   (ETHICS)   VARIATIONS IN HUMAN FUNCTIONING   (APPLICATIONS)

LEARNING GOALS:

GOAL 3: Ethical and Social Responsibility in a Diverse World

GOAL 4: Communication
GOAL 5: Professional Development

[Each element in the rubric may be weighted differently.]

Meets all expectations	Partially meets expectations	Does not meet expectations	FOUNDATIONAL INDICATORS
			3.1b Identify obvious violations of ethical standards in psychological contexts
			3.1c Discuss relevant ethical issues that reflect principles in the APA Ethics Code
			3.2d Maintain high standards for academic integrity, including honor code requirements
			4.1b Recognize writing content and format differ based on purpose (e.g., blogs, memos, journal articles) and audience
			4.1c Use standard English, including generally accepted grammar
			4.1e Recognize and develop overall organization (e.g., beginning, development, ending) that fits the purpose
			5.3a Follow instructions, including timely delivery, in response to project criteria

Exemplar 3 reflects skills from three content pillars, Cognitive, Development, and Social & Personality, and two themes, Cultural & Social Diversity and Applications. This assignment requires students to integrate content across multiple domains. Students are asked to imagine themselves in a work setting applying the principles of psychology to assist clients in developing healthy behaviors. Using the grading rubric format, we provide 10 grading criteria (foundational indicators) that are consistent with the *APA Guidelines 2.0* for the undergraduate major.
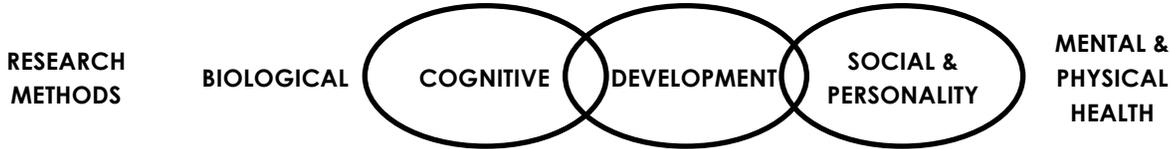
EXEMPLAR 3

Imagine that you are a behavioral assistant working in a physician's office. Part of your job is to encourage your patients to engage in healthier behaviors. After briefly defining each of the following terms, explain how you, as a behavioral assistant, could use your knowledge of those terms to help your patients.

- Operant conditioning
- Observational learning
- Framing
- Availability heuristic
- Cognitive dissonance
- Collectivist cultures

PILLAR:

RESEARCH METHODS   BIOLOGICAL   **COGNITIVE**   **DEVELOPMENT**   **SOCIAL & PERSONALITY**   MENTAL & PHYSICAL HEALTH

COMMON THEME:

CULTURAL & SOCIAL DIVERSITY   ETHICS   VARIATIONS IN HUMAN FUNCTIONING   APPLICATIONS

LEARNING GOALS:

GOAL 1: Knowledge Base in Psychology
GOAL 3: Ethical and Social Responsibility in a Diverse World

GOAL 4: Communication
GOAL 5: Professional Development

[Each element in the rubric may be weighted differently.]

Meets all expectations	Partially meets expectations	Does not meet expectations	FOUNDATIONAL INDICATORS
			1.1a Use basic psychological terminology, concepts, and theories in psychology to explain behavior and mental processes
			1.3a Describe examples of relevant and practical applications of psychological principles to everyday life
			3.2b Treat others with civility
			3.2d Maintain high standards for academic integrity, including honor code requirements
			3.3c Explain how psychology can promote civic, social, and global outcomes that benefit others
			4.1a Express ideas in written format that reflect basic psychological concepts and principles
			4.1c Use standard English, including generally accepted grammar
			4.1e Recognize and develop overall organization (e.g., beginning, development, ending) that fits the purpose
			5.1d Describe how psychology's content applies to business, health care, educational, and other workplace settings
			5.3a Follow instructions, including timely delivery, in response to project criteria

Exemplar 4 involves three different activities designed to assess the understanding of long-term memory (from the Cognitive pillar). In the first two activities, students define terms and identify the conceptual relationships among the terms. In the third activity, students then write a short paper and apply the terms to an event in their personal lives.

EXEMPLAR 4

THOUGHT PAPER ASSIGNMENT: MEMORY

We discussed the multistore model of memory, a classic model of the storage of information processing. Atkinson and Shiffrin (1968) identified three stages of memory storage in their model: sensory memory, short-term memory, and long-term memory.

Since the time when the model was articulated, cognitive psychologists have conducted multiple studies on memory stores, using diverse methodologies and participant populations. The converging evidence from this research indicates that each store can be broken into several component parts. In this assignment, we will focus on the subdivisions of **long-term memory**.
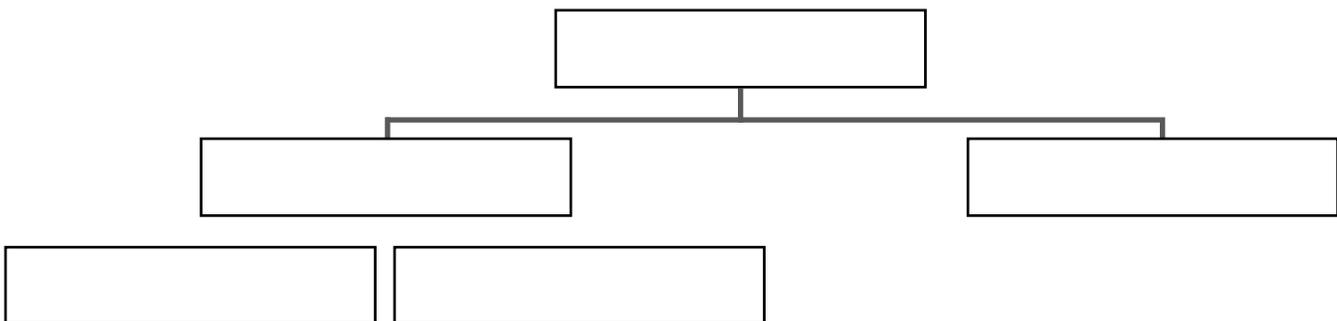
PART I:

In your own words, define the following terms:

- Long-term memory
- Declarative memory
- Episodic memory
- Semantic memory
- Procedural memory

PART II:

Label the parts of the diagram below to illustrate the conceptual relationship among the subdivisions of long-term memory (Atkinson & Shiffrin, 1968) that you defined in Part I.
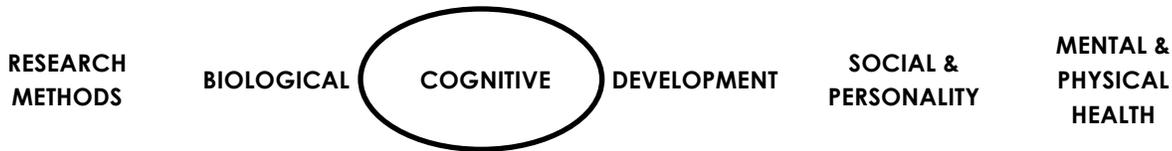
PART III:

Choose an event from your life that you've stored in your long-term memory. The event should not be too personal. In other words, identify an event that involves a memory that is relatively innocuous. Using each of the terms you defined in Part I, write a one- to two-page paper in which you do the following: (1) *Describe* the memory in narrative form; (2) *identify* which elements of the memory can be classified as episodic, which as semantic, and which as procedural; and (3) *explain* why each element is episodic, semantic, or procedural by tying the memory to the definition of each term.

PILLAR:

RESEARCH METHODS   BIOLOGICAL   (COGNITIVE)   DEVELOPMENT   SOCIAL & PERSONALITY   MENTAL & PHYSICAL HEALTH

COMMON THEME:

CULTURAL & SOCIAL DIVERSITY   ETHICS   VARIATIONS IN HUMAN FUNCTIONING   (APPLICATIONS)

LEARNING GOALS:

GOAL 1: Knowledge Base in Psychology   **GOAL 4:** Communication
GOAL 2: Scientific Inquiry and Critical Thinking   **GOAL 5:** Professional Development

[Each element in the rubric may be weighted differently.]

Meets all expectations	Partially meets expectations	Does not meet expectations	FOUNDATIONAL INDICATORS
			1.1a Use basic psychological terminology, concepts, and theories in psychology to explain behavior and mental processes
			1.3a Describe examples of relevant and practical applications of psychological principles to everyday life
			2.2a Read and summarize general ideas and conclusions from psychological sources accurately
			4.1a Express ideas in written formats that reflect basic psychological concepts and principles
			4.1c Use standard English, including generally accepted grammar
			4.1e Recognize and develop overall organization (e.g., beginning, development, ending) that fits the purpose
			5.3a Follow instructions, including timely delivery, in response to project criteria

Finally, Exemplar 5 is an applied exercise linked to the Development pillar as another assessment to measure student learning outcomes.

EXEMPLAR 5

Use the following excerpt from a journal article as you answer the questions in Parts 1-4.

Skinner, B. F. (1948). "Superstition" in the pigeon. *Journal of Experimental Psychology*, *38*, 168–172. (Reproduced at **http://psychclassics.yorku.ca/Skinner/Pigeon/**)

To say that a reinforcement is contingent upon a response may mean nothing more than that it follows the response. It may follow because of some mechanical connection or because of the mediation of another organism; but condi-

tioning takes place presumably because of the temporal relation only, expressed in terms of the order and proximity of response and reinforcement. Whenever we present a state of affairs which is known to be reinforcing at a given drive, we must suppose that conditioning takes place, even though we have paid no attention to the behavior of the organism in making the presentation. A simple experiment demonstrates this to be the case.

A pigeon is brought to a stable state of hunger by reducing it to 75 percent of its weight when well fed. It is put into an experimental cage for a few minutes each day. A food hopper attached to the cage may be swung into place so that the pigeon can eat from it. A solenoid and a timing relay hold the hopper in place for five sec. at each reinforcement.
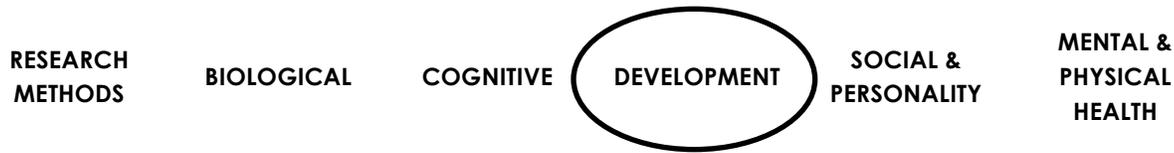
If a clock is now arranged to present the food hopper at regular intervals *with no reference whatsoever to the bird's behavior* … conditioning usually takes place. In six out of eight cases the resulting responses were so clearly defined that two observers could agree perfectly in counting instances. One bird was conditioned to turn counter-clockwise about the cage, making two or three turns between reinforcements. Another repeatedly thrust its head into one of the upper corners of the cage. A third developed a 'tossing' response, as if placing its head beneath an invisible bar and lifting it repeatedly. Two birds developed a pendulum motion of the head and body, in which the head was extended forward and swung from right to left with a sharp movement followed by a somewhat slower return.

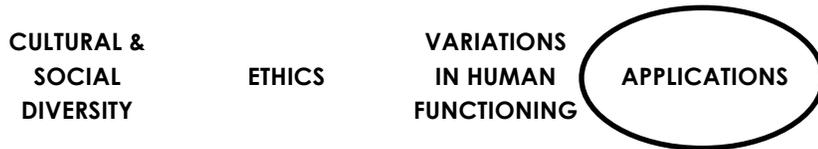| **PART 1:** What kind of conditioning is Skinner describing in this journal article?
 	
    A. Classical conditioning
    B. Operant conditioning (positive reinforcement)
    C. Operant conditioning (negative reinforcement)
    D. Observational learning
    E. Second-order conditioning
	PART 2: Find a quote from the excerpt that supports your answer to Part 1. Rewrite that quote in your own words here.

PART 3: Which of the following statements is the best summary of the "research question" for the experiment described in the study?
 	
    A. Operant conditioning exerts powerful influences on the behaviors of living organisms.
    B. Dramatic examples of conditioning occur when carefully chosen stimuli are administered after responses.
    C. Conditioning occurs even when no specific behaviors are focused on or deliberately reinforced.
    D. Principles of learning control behaviors more significantly than internal factors, like intention.
    E. Organisms will acquire conditioned behaviors in response to reinforcements.
	PART 4: Select a quote from the article that you think is the best evidence for your answer in Part 3, and rewrite in your own words here.

PILLAR:

RESEARCH METHODS   BIOLOGICAL   COGNITIVE   (DEVELOPMENT)   SOCIAL & PERSONALITY   MENTAL & PHYSICAL HEALTH

COMMON THEME:

CULTURAL & SOCIAL DIVERSITY   ETHICS   VARIATIONS IN HUMAN FUNCTIONING   (APPLICATIONS)

LEARNING GOALS:

GOAL 1: Knowledge Base in Psychology   **GOAL 2:** Scientific Inquiry and Critical Thinking

[Each element in the rubric may be weighted differently.]

Meets all expectations	Partially meets expectations	Does not meet expectations	STUDENT LEARNING OUTCOMES
			1.1 Describe key concepts, principles, and overarching themes in psychology
			1.2 Develop a working knowledge of psychology's content domains
			1.3 Describe applications of psychology
			2.2 Demonstrate psychology information literacy
			2.4 Interpret, design, and conduct basic psychological research

USING ASSESSMENT DATA

The Introductory Psychology course serves multiple purposes—as a prerequisite course to the psychology major, as a general education course, and as a vehicle for educating the general public. In all three instances, it is important to consider the overarching goals for the course. Departments can use the five content pillars (APA, 2014) to identify a limited set of content knowledge reflecting a global understanding of the discipline. Foundational indicators (APA, 2013) can be identified as outcomes for the course.

Regardless of the type of assessment (e.g., multiple-choice items, activities, exercises), the resulting data can be used for a variety of purposes. For example, faculty can use the data to evaluate their effectiveness in teaching and for the purpose of improving instruction across semesters. By using such locally developed instruments, institutions may be able to evaluate student learning at a campus level (Schulman, 2007) and use the data for purposes of regional accreditation; however, there are serious limitations to using such data in making any regional or national comparisons.

VALUE OF EMBEDDED ASSESSMENTS

Embedded assessments can be used as both formative and summative assessments of student learning outcomes. Introductory Psychology assessments can provide information about student knowledge and/or skills so that teachers and students can make "course corrections." For example, instructors could use information about their students' achievement in, say, the scientific method, knowledge content, and critical thinking to redesign lectures or class activities based on areas of apparent weakness. Such information could also be gathered toward the beginning of the course (diagnostic assessment) or later, after instruction has occurred (checking for understanding). If the data indicate that the class as a whole is fairly strong on content knowledge but is having difficulty using that knowledge to think critically about psychological claims,

instructors could design learning activities to help students practice these critical thinking applications.

Similarly, students could use data from the assessment to modify their own learning. It is possible (and likely) that some students within a class might continue to struggle with content mastery. Using a formative assessment allows an instructor to provide individual feedback about specific content-area weaknesses along with advice about how to remedy those weaknesses (e.g., studying advice specific to that content area, help with graphic organizers to conceptualize the information; Greenberg, 2015).

Data about student achievement may also inform many important department discussions and decisions. Departments could use data in making decisions about course offerings, in planning course objectives, and in overall discussions regarding what students should know and do. Departments may evaluate their success at various points and track longitudinal progress over time on specific goals.

A NATIONAL PLAN

Developing a nationally standardized instrument to assess outcomes of the Introductory Psychology course that possesses strong reliability, validity, and normative data will prove both difficult and expensive. In the meantime, we have provided a set of student learning outcomes that can be used as an initial step for creating a nationally standardized assessment plan. If faculty across the nation use a common set of student learning outcomes for Introductory Psychology, then the initial step in creating a national plan will be achieved.

In the absence of funding that would allow campuses to employ these nationally standardized measures of student learning, campuses may wish to continue assessing student learning outcomes using locally developed multiple-choice examinations. This type of assessment data provides campuses with an initial measure of student learning that can be used locally and as an initial step in responding to regional accreditation bodies. However, locally developed instruments are unique to the campus; they are not nationally standardized and will probably not possess adequate reliability and validity.

At a minimum, we suggest that campuses use embedded assessments that are designed to measure a subset of student learning outcomes associated with Introductory Psychology. Embedded assessments do not provide an ideal solution, but this incremental approach would provide campuses with data regarding higher level learning outcomes (e.g., critical thinking, scientific reasoning). A repository of these assessments could then be developed and maintained by APA to provide some level of national comparison.

Although we recommend that some form of assessment and data (i.e., embedded assessment) be maintained in a national clearinghouse, we do so with an abundance of caution. First, a repository would merely allow institutions to access a set of assessments with no assurances of their reliability or validity. It is possible that institutions would be willing to submit data from their respective campuses, as a way to begin to collect national data. However, institutions would first need to commit to participating in such an initiative. Institutions

would also need to consider local institutional review board regulations, which might limit their willingness to participate in a national project.

Ultimately, the Working Group recognizes that assessment of student learning outcomes for Introductory Psychology, and the major in psychology, is of the highest importance for the undergraduate community. We recommend investing in the development of a nationally standardized instrument for assessing student learning in the Introductory Psychology course. In the interim, we recommend that campuses employ sound measurement practices: define the constructs to be measured, create instruments for campus-based use, and evaluate the psychometric properties of those instruments. Ultimately we encourage departments to increase campus-based assessment initiatives that can serve as a basis for measuring the student learning that occurs in the introductory course.

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