Skill Development in Introductory Psychology

Rajiv S. Jhangiani

Kwantlen Polytechnic University

Erin E. Hardin

University of Tennessee

(in press at Scholarship of Teaching and Learning in Psychology)

Author Note

Rajiv S. Jhangiani, Department of Psychology, Kwantlen Polytechnic University; Erin E. Hardin, Department of Psychology, University of Tennessee.

Correspondence concerning this article should be addressed to Rajiv S. Jhangiani, Department of Psychology, Kwantlen Polytechnic University, 12666 72nd Avenue, Surrey, BC, V3W 2M8, Canada. E-mail: rajiv.jhangiani@kpu.ca

Abstract

The Introductory Psychology course is simultaneously our discipline's most powerful outlet and a difficult course to teach effectively. A particular challenge of this immensely popular course is that it must serve the foundational needs of psychology majors as well as the general education needs of students taking it as an elective. In this paper we integrate recent efforts to identify a new model for Introductory Psychology (Gurung et al., in press) with recent recommendations for a greater emphasis on skill development (Strohmetz et al., 2015). In doing so, we argue for the adoption of an approach to teaching Introductory Psychology that emphasizes skill development at least as much as course content, and that utilizes the principles of backward course design to identify the enduring understandings that students ought to take away from this course (Wiggins & McTighe, 2006). We integrate psychology-specific outcomes with liberal education outcomes to identify two specific skills that we argue should be of universal focus in Introductory Psychology. Finally, we close with five recommendations to facilitate this shift to a more explicit skills focus.

Keywords: skill development, learning outcomes, Introductory Psychology, backward course design

Skill Development in Introductory Psychology

Introductory Psychology is the most important course psychology programs offer, not only because it is the foundational course for the psychology major but also because it is one of the most popular courses on many college campuses among non-majors (Halonen, 2011): in total, more than 1.5 million students enroll in Introductory Psychology every year (Gurung, Hackathorn, Enns, Frantz, Cacioppo, Loop, & Freeman, in press). Moreover, given that "psychology represents the academic and professional discipline that has the greatest ability to improve the quality of life worldwide" (Landrum, 2014), the potential impact of this high-stakes course on students' lives is both widespread and significant.

However, Introductory Psychology is arguably also the most difficult course to teach effectively. In addition to the breadth of covered topics, encyclopedic nature of most textbooks, unrealistically low student expectations concerning the level of difficulty of the material, inaccurate expectations concerning the course content, and the varied degrees of student preparation that students bring to the course (Gurung, 2013; Stoloff et al., 2010), the course's very popularity means that instructors must attempt to balance the needs and goals of psychology majors and non-majors. Put simply, "how can one course satisfy the demands of a general or liberal education course elective while still providing would-be majors with the information they need for upper level courses in the psychology department's curriculum?" (Dunn, Beins, McCarthy, & Hill, 2010, p. 5). Although one obvious solution to this challenge is to offer two courses -- one for majors, another for non-majors -- an APA taskforce recently concluded that this is not, in fact, a preferred strategy for reasons that include maintaining consistency, using quality benchmarks, preparing students for behavioral components of post-graduate entrance examinations, and developing a universal assessment of content mastery.

Thus, providing a similar experience for majors and non-majors was one of the five key recommendations of the taskforce (2014).

What, then, is the best way to design Introductory Psychology? We attempt to answer this question by integrating recent recommendations for a new model of Introductory Psychology (Gurung et al., in press) with recommendations for a clearer skills focus in the psychology major (Strohmetz et al., 2015) to argue for the adoption of a skills-based focus in Introductory Psychology. We contend that a focus on skill development addresses many of the challenges inherent in teaching Introductory Psychology while facilitating the realization of the aspirational potential of the course to improve lives. We begin by reviewing recent efforts to identify a common set of learning outcomes and core content of Introductory Psychology. Next, we contrast content- and competency-based approaches to teaching this pivotal course. Finally, we integrate the APA's psychology-specific outcomes with the American Association of Colleges and Universities (AAC&U's) liberal education outcomes to identify a set of skills that instructors of Introductory Psychology might scaffold, assess, and otherwise weave through their course. We offer specific examples of how instructors might do so, before concluding with five recommendations for the Introductory Psychology course.

Are There Common Learning Outcomes in Introductory Psychology?

Perhaps for all the reasons noted above, consensus regarding the importance of topics in Introductory Psychology and their coverage in class has been elusive (Miller & Gentile, 1998), with little consistency across different offerings. Homa and her colleagues (2013) recently content analyzed 158 Introductory Psychology syllabi, mapping student learning objectives onto the 2007 edition of the APA guidelines for the undergraduate psychology major. Qualitative content analyses indicated that only four of APA's ten learning objectives were represented in

more than 50% of the surveyed syllabi (Homa et al., 2013). In descending order these were: 1) knowledge base (85%), 2) research methods (67%), 3) application (58%), and 4) critical thinking (52%). Remarkably, this suggests that 15% of the reviewed syllabi did not clearly indicate knowledge of key content as a learning outcome, and 33% -- fully one-third -- of the courses did not clearly incorporate training in research methods.

Version 2.0 of the APA's guidelines has since been published (2013), including indicators of both foundational and baccalaureate levels of development while reducing the number of learning objectives from ten to a more manageable five: 1) knowledge base in psychology, 2) scientific inquiry and critical thinking, 3) ethical and social responsibility in a diverse world, 4) communication, and 5) professional development. Mapping Homa et al.'s (2013) findings onto the revised set of objectives shows that only two of the five objectives – knowledge base in psychology and scientific inquiry and critical thinking – are explicitly addressed in a majority of Introductory Psychology syllabi, while communication (26%), ethical and social responsibility (15%), and professional development (7%) are grossly under-represented.

Of course, the APA (2013) guidelines' foundational indicators capture expectations of development following the first four courses in the psychology major, and so it may be neither reasonable nor desirable to attempt to address all five objectives within the Introductory Psychology course. However, this ambiguity only serves as an additional reason for why there is no consensus about common learning outcomes in Introductory Psychology, even at the broadest levels. Such a lack of consistency, in turn, adds to the difficulty instructors face in designing and teaching the course while simultaneously depriving non-psychology majors of the very (general education) skills that they ought to take away from a first-year course in

Introductory Psychology. In light of such evidence, and given the value of establishing

conceptual consistency in Introductory Psychology, the APA recently charged a working group

with distilling and making recommendations for a new model of Introductory Psychology

(APA, 2014; Gurung et al., in press).

Toward a new model for the Introductory Psychology Course

The APA working group (Gurung et al., in press) made the following five

recommendations for strengthening Introductory Psychology:

1. Foster greater conceptual consistency in course content

2. Provide similar content for both psychology majors and non-majors

3. Incorporate research experiences in the course

4. Foster special training opportunities for instructors

5. Offer a national assessment plan for the course

Three of these recommendations focused on the specific content and skills that comprise

the introductory course, with two of these three recommendations urging consistency in content,

both across different institutional settings and, as noted earlier, across major and non-major

student audiences. These recommendations reflect recent calls for the structure of the

Introductory Psychology course to "serve as a stand-alone structure (for students taking it as

part of a general education requirement) or as the foundation for the psychology major" (APA,

2014, p. 12; see also Dunn et al., 2010; Halpern, 2010).

At the heart of this call for consistency for all students in the APA (2014) taskforce

report was the recommendation of a common approach to the content taught across all offerings

of Introductory Psychology, with four key components. First, introductory courses should be

grounded in an understanding of basic research methods to clearly communicate the scientific

foundation of psychology as a discipline. Second, "cross-cutting themes" of *cultural and social diversity, ethics, variations in human functioning,* and *applications* should be emphasized across all content areas. Third, all courses should include two or more topics from each of five content area "pillars:" biological, cognitive, developmental, social and personality, and physical and mental health. Finally, there should be explicit efforts to integrate these pillars to highlight the ways in which the domains of psychology intersect and interact.

The articulation of this new model for Introductory Psychology is a critical step toward creating broader consistency in course offerings. By providing explicit guidelines for the types of content that should be universally covered, the taskforce presented an essential framework for instructors to use in developing their course, while still allowing for wide flexibility and academic freedom in choosing the more specific topics within each broader pillar. Instructors may now rely on more than just textbook content for direction in choosing how many and which topics to cover, making the task of designing and teaching Introductory Psychology that much easier. Indeed, in their analysis of Introductory Psychology textbooks, Griggs and Jackson (2013) noted that the typical chapter count was 16 and that the average number of text pages approached 700. Given that 90% of Introductory Psychology courses are taught within a single semester (Messer, Griggs, & Jackson, 1999), it is easy to see why instructors would experience significant pressure to "cover the content" in the absence of explicit guidance of the APA working group.

Moreover, by encouraging instructors to focus on cross-cutting themes and explicit integration across content areas, the recommendations of the APA taskforce also encourage a shift in focus away from the myriad specific facts students might learn in the Introductory Psychology course and toward the bigger-picture knowledge or skills that students should

acquire. This recommendation implicitly recognizes that psychology majors will repeatedly be exposed to the specific facts they need to acquire across the many content courses they will complete in the course of their degree program. Moreover, this shift in focus is consistent with the perspective of backward course design (Wiggins & McTighe, 2006) that instructors should begin by identifying the "enduring understandings" we want students to take away from a course. "The term enduring refers to the big ideas, or the important understandings, that we want students to 'get inside of' and retain after they've forgotten many of the details. Put differently, the enduring understandings provide a larger purpose for learning the targeted content: They implicitly answer the question, Why is this topic worth studying?" (McTighe & Wiggins, 1999, p. 70).

Some attempts have been made to identify these *enduring understandings* in Introductory Psychology. For example, Gerow (2010) described the "real learning objectives" of Introductory Psychology as the 5-6 things instructors wish for their students to carry with them long after they complete the course, and most reflect this kind of big picture approach that emphasizes enduring themes over specific details (e.g., *Psychological functioning is always more complicated than it may appear at first, and interactionism is a powerful concept*). His secondary objectives, although somewhat more content specific, continue in the same vein of a list of insights that he desires for his students to achieve. In his words:

> I hope they come to appreciate that: (a) Thorndike's Law of Effect is old, but its essence is still true; (b) Persons with psychological disorders are not weak, or bad, or sinful; (c) Life is short, stress is bad, and it's important to learn how to cope; (d) Distributed practice is superior to massed practice; (e) Our ability to pay attention is severely limited; (f) Psychotherapy works; (g) Spanking doesn't; and (h) It is

always a good idea to know when to stop. (p. 64)

Gerow's two sets of "take-away messages" are useful to highlight because they provide an indication of the kind of knowledge that students taking a course in Introductory Psychology will be able to apply to their life and work -- whether the course is an elective or a foundational course for the major. However, Gerow's somewhat idiosyncratic list of secondary objectives also highlights the vast number of potential take-away messages there are in a course like Introductory Psychology. Even in combination with the essential work of the task-force, instructors are still left with surprisingly little direction in choosing a common set of take-away messages. Other challenges of effectively teaching Introductory Psychology remain, as well. For example, how do instructors meet the needs of non-majors in the course, for whom broader general education outcomes are at least as important as these content-related outcomes? We believe that the solution lies in integrating a "competency-based approach" (Halonen, Harris, Pastor, Abrahamson, & Huffman, 2006) to identifying learning outcomes with the more traditional content-based approaches.

The Value of Competency-Based Learning Outcomes in Introductory Psychology

Competency-based approaches to identifying common learning outcomes focus not on what a student should be able to recall at the end of a particular curriculum, but rather on what a student should be able to do. Competency-based approaches, then, focus on the skills that students should acquire through a particular curriculum -- the ways in which they use the content-knowledge gained. There has recently been an increasing recognition of the importance of such competency-based approaches, both in psychology and in higher education more broadly.

For example, Stoloff, Good, Smith, and Brewster (2015) recently argued for a skills-

focused major, in part because employers value skills. A recent AAC&U report (2011, p. 25)

indicated that a majority of employers surveyed (59%) believed that both a "broad range of

skills and knowledge that apply to a range of fields or positions" and "in-depth knowledge and

skills that apply to a specific field or position" were "important for recent college graduates who

want to pursue advancement and long-term career success at your company." In contrast, only

20% of employers thought that discipline-specific knowledge was more important than broader

skills. When asked which broad skills they believe universities and colleges should place more

emphasis on, more than 70% of employers mentioned: the ability to effectively communicate

orally and in writing (89%), critical thinking and analytical thinking skills (81%), the ability to

apply knowledge and skills to real-world settings through internships or other hands-on

experiences (79%), the ability to analyze and solve complex problems (75%), the ability to

connect choices and actions to ethical decisions (75%), and team-work skills and the ability to

collaborate with others in diverse group settings (71%; p. 26).

Quite aside from serving the needs of employers and preparing our graduates for the

workforce, there is reason to believe that a competency-based approach is also a more pragmatic

instructional strategy. For instance, a recent study by Landrum and Gurung (2013) found that

students of introductory psychology retain only 56% of the course material two years after

completing the course. Among psychology majors the corresponding retention rate was only

slightly higher at 63%, leading the authors to both call into question the convention of using the

Introductory Psychology course as a program prerequisite, as well as to suggest switching tactics

to focus instead on "big picture ideas" and skill development. Unfortunately, however, recent

evidence suggests that students do not perceive they are getting such a focus on overarching ideas

and skills in their psychology curriculum (Martini, Judges, & Belicki, 2015), highlighting the

need for more intentional efforts to identify and teach such skills in introductory psychology.

Such a focus on big picture ideas and skill development is quite consistent with the current *zeitgeist* in higher education more broadly, which has been catalyzed by the AAC&U's LEAP (Liberal Education and America's Promise) Initiative (see AAC&U, 2008) and the Lumina Foundation's (2014) Degree Qualifications Profile (DQP). Both the LEAP initiative and the DQP are aimed at transforming higher education in the U.S. to better meet the demands of the 21st century by specifying essential elements of a high-quality, relevant post-secondary education. Central to the LEAP initiative was the articulation of critical essential learning outcomes. These outcomes include *Knowledge of Human Cultures and the Physical and Natural World,* but focus primarily on *Intellectual and Practical Skills* (which include *Inquiry and analysis*, *Critical and creative thinking*, *Written* and *Oral communication*, *Quantitative literacy, Information literacy*, *Teamwork*, and *Problem solving*), *Personal and Social Responsibility* (which includes *Civic knowledge and engagement*, *Intercultural knowledge and competence*, *Ethical reasoning and action*, *and Foundations and skills for lifelong learning*), and *Integrative and Applied Learning.* These essential learning outcomes share remarkable similarity with the "five essential areas of learning" identified by the Lumina Foundation in their DQP. These areas are (1) *Specialized knowledge*; (2) *Broad and integrative knowledge,* (3) *Intellectual skills*, which include analytic inquiry and operations, use of information resources, engaging diverse perspectives, ethical reasoning, quantitative fluency, and communicative fluency (p. 5); (4) *Applied and collaborative learning*, and (5) *Civic and global learning.*

Although both the LEAP Initiative and the DQP have been influential, the former in particular has spawned a number of publications about student success, general education reform (AAC&U, 2015), best practices in higher education and assessment (e.g., AAC&U, 2002;

Sullivan, 2015), as well as a compilation of detailed rubrics for operationalized and assessing

these 16 learning outcomes (AAC&U, n. d.). We therefore focus on the AAC&U essential

learning outcomes from here forward, especially given that all of the DQP categories are reflected

therein.

In light of the many challenges described above in teaching Introductory Psychology, and

in the context of the skills-based focus of both the LEAP initiative and the Lumina Foundation's

DQP, we believe that a competency-based approach is likely to be particularly valuable in

Introductory psychology. A skills focus simultaneously addresses the needs of general education

students and psychology majors, both of whom need broadly relevant learning tied to the LEAP

essential learning outcomes. Embedding critical course content within a broader skills-focus by

emphasizing how students can *use* the content provides both instructors and students (both majors

and non-majors) with a bigger-picture focus and clearer rationale for why the content itself is

important. Thus, integrating a skills-focus into Introductory Psychology closes the final gap in

creating a truly consistent course.

Integrating Content- and Competency-Based Approaches in Introductory Psychology

On the surface, the new model outlined by the APA (2014) working group appears to be

focused on content knowledge as opposed to skill development; indeed, the five pillars are

explicitly content domains. However, these content pillars are embedded within a broader skills-

based framework. More specifically, the skill of *Using scientific reasoning to interpret*

psychological phenomena (Outcome 2.1, APA, 2013) is embedded in the very foundation of the

recommended core, with skills of *Describing applications of psychology* (Outcome 1.3) and

Applying ethical standards to evaluate psychological science and practice (Outcome 3.1) clearly

interwoven across content domains. Moreover, the recommendation for a capstone integration

clearly represents the fostering of particular skills among Introductory Psychology students, such as the abilities to recognize complementary explanations for behavior and experience, to integrate disparate lines of knowledge to generate solutions, and to compare and contrast the perspectives offered by different approaches.

In an effort to close the gap and integrate the content- and competency-based approaches, we attempted to make the competencies that are implicit in the APA (2014) working group report explicit. We believe that a combination of an explicit content-based core with an explicit skills-focused core will provide instructors and students with the clearest set of guidelines for achieving consistency in the Introductory Psychology course. As an initial step toward this end, we attempted to integrate the APA (2013) 2.0 learning goals with the LEAP essential learning outcomes (ELOs), as reflected in the AAC&U's (n.d.) Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics, to identify points of overlap. Although others have certainly referenced these learning outcomes in psychology (e.g., Milczarski & Maynard, 2015), we believe we are the first to attempt an explicit integration of these learning outcomes with the APA learning goals. The learning goals and outcomes in the APA Guidelines provide the clearest articulation of critical discipline-specific skills needed by psychology majors. The AAC&U VALUE rubrics, on the other hand, provide the clearest articulation of critical general education skills needed by all undergraduates, and, in turn, closely mirror the kinds of skills employers say they want. Although the APA learning outcomes reflect outcomes for the entire major, and thus it is unreasonable to expect that any one course would achieve all of them, we still felt this broad list of discipline-specific outcomes provided the best starting point for attempting such an integration.

We created a table (see Table 1) with rows for each of the 19 specific outcomes in the

APA guide and columns for the 16 AAC&U essential learning outcomes (excluding the content-focused *Knowledge of human cultures and the physical and natural world*). The first and second author separately mapped points of overlap, and then we compared our tables. Initial mapping agreement was high (93%) and consensus was reached on the remaining categories via discussion. We focused on obvious and explicit meanings of each outcome to determine overlap. For example, the AAC&U outcome of *information literacy* is defined as, "The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand," (AAC&U, n.d., p. 9). However, we did not map this outcome onto APA Outcome 2.4 (*Interpret, design, and conduct basic psychological research*), because the latter is focused on producing more than consuming research, whereas the former is focused on information more broadly than empirical research. We also did not map *Information Literacy* onto APA Outcome 4.1 (*Demonstrate effective writing for different purposes*) because, although writing might be one way in which one would "responsibly use and share the information," it is not the only way, and writing is not an explicit focus of the definition.

Table 1 shows our integration of these two sets of objectives. The first two of the APA outcomes (1.1 *Describe key concepts, principles, and overarching themes in psychology* and 1.2 *Develop a working knowledge of psychology's content domains*) clearly map onto the AAC&U content-specific outcome of *Knowledge of Human Cultures and the Physical and Natural World,* which we excluded from Table 1. Of the remaining 17 APA specific outcomes indicated in the APA guide, 16 clearly mapped onto at least one of the 16 essential learning outcomes; the only exception was 5.5, *Develop meaningful professional direction for life after graduation*. The outcomes with the greatest degree of overlap (in descending order of degree of overlap) were:

- Outcome 5.1 (*Apply psychological content and skills to career goals*), which

  mapped onto 7 ELOs, more than any other single indicator;

- Outcome 2.3 (*Engage in innovative and integrative thinking and problem solving*),

  which mapped onto 6 of the ELOs;

- Outcomes 2.1 (*Use scientific reasoning to interpret psychological phenomena*), 2.4

  (*Interpret, design and conduct basic psychological research*), 2.5 (*Incorporate*

  sociocultural factors into scientific inquiry), and 4.3 (*Interact effectively with*

  others), which each mapped onto 5 of the ELOs;

- Outcomes 1.3 (*Describe applications of psychology*), 3.2 (*Build and enhance*

  interpersonal relationships) and 3.3 (*Adopt values that build community at local,*

  national, and global levels), which each mapped onto 4 of the ELOs; and

- Outcome 3.1 (*Apply ethical standards to evaluate psychological science and*

  practice), which mapped onto 3 of the ELOs.

Transposing the mapping, 15 of the 16 ELOs mapped onto at least one of the APA

indicators (*Reading* was the only exception), with the greatest points of overlap as follows (once

again, in descending order of degree of overlap):

- *Foundations and skills for lifelong learning* and *Global learning* each mapped onto

  7 of the specific outcomes;

- *Civic engagement* and *Inquiry & Analysis* mapped onto 6 outcomes;

- *Critical thinking*, and *Intercultural knowledge & competence* each mapped onto 5

  outcomes; and

- *Teamwork, Creative Thinking,* and *Integrative Learning* each mapped onto 4

  outcomes.

This synthesis clearly shows that the psychology major, when it achieves the outcomes identified in the APA guidelines, provides students with precisely the kinds of knowledge and skills the AAC&U has identified as essential. In many ways this is reminiscent of the successful integration of the educational framework of EuroPsy, the European standard of education and professional training in psychology, with the "Tuning Educational Structures in Europe" project, which developed "a set of generic and specific competences leading to learning outcomes in different fields" (European Federation of Psychologists' Associations, 2013, p. 6.). Indeed, the "Tuning project" is itself a reflection of the European Commission's adoption of a competency-based approach and part of the Bologna process, which seeks to enhance the compatibility, mobility, and quality of higher education in Europe.

Our hope is that this synthesis will help instructors begin to focus on the specific competencies that are essential both to the specific discipline of psychology as well as to the broader general education curriculum. Although the task of identifying a common set of competencies for Introductory Psychology may prove challenging, we believe it is a critically important endeavor to undertake. Given that Introductory Psychology is a first-year course typically taught in a single semester (Messer et al., 1999), it is likely that focusing on the kinds of competencies found in the foundational indicators laid out in the APA (2013) Guidelines for the Undergraduate Psychology Major will be most fruitful. Of course, not all of these competencies should be deemed essential to Introductory Psychology, as no single course can -- or even should -- attempt to accomplish all of the foundational indicators. Indeed, the foundation indicators "roughly represent progress that students should make after completing *several* lower level courses in the major," (APA, 2013, p. 3, emphasis added).

One challenge to identifying a smaller common set of competencies for Introductory

Psychology is adequately acknowledging the various types of settings in which the introductory

course is offered. In other words, what specific competencies are more universally relevant and

attainable, regardless of course size, delivery format, institutional mission, and so on? We

might expect, for example, that learning outcomes related to oral and written communication,

which are much more difficult to implement in large enrollment courses, might not be deemed

universally relevant to Introductory Psychology. This is not because these learning outcomes

are inappropriate for or irrelevant to Introductory Psychology, but rather that they may not be

part of a common set of competencies all introductory courses might be recommended to teach

consistently. Just as the introductory course is but one course within a student's psychology

major, and thus does not bear responsibility for achieving 100% of the foundational indicators,

it is important to remember that the Introductory Psychology course is also but one course

within a student's general education curriculum, and thus should not bear responsibility for

achieving 100% of the critical outcomes.

Integrating a Skills-Focus into Introductory Psychology: Recommendations for Instructors

Although such a common set of competencies has not yet been identified, we believe

that Introductory Psychology instructors can nonetheless begin to enhance their own courses by

integrating a competency-focused approach. Based on the information presented in Table 1, the

broad skills of *applying content-based knowledge* (which captures Outcomes 5.1, 3.1, and 1.3)

and *using scientific reasoning and critical thinking* (which subsumes Outcomes 2.1 – 2.5)

appear to be the competencies that (a) simultaneously capture skills critical to both the

psychology major and general education learning outcomes and (b) are most universally

relevant to Introductory Psychology, regardless of course size, delivery format, institutional

mission, and so forth. Although acquiring interpersonal skills (e.g., *interacting effectively with*

others) and *adopting values that build community* also emerged in Table 1 as key integrations of both psychology major and general education outcomes, such competencies may be more difficult to achieve in many settings (e.g., large enrollment or online sections of Introductory Psychology). Consequently, although interpersonal and/or other community-building skills may well emerge as recommended core competencies in Introductory Psychology in future work, we believe focusing on the two (likely more easily implemented) competencies of *applying content-based knowledge* and *using scientific reasoning and critical thinking* is more fruitful for now.

We recommend that instructors of Introductory Psychology intentionally and explicitly weave these themes throughout their course, providing students with multiple opportunities to develop and apply these skills across the full range of course content. It is essential to highlight here that although we are urging movement toward a common set of competencies in Introductory Psychology, we are not urging movement toward rigid uniformity in the course nor lack of academic freedom and instructor creativity. On the contrary, we believe that emphasizing critical core competencies in Introductory Psychology is the vehicle by which consistency in the course can be achieved while simultaneously fostering creative approaches to teaching.

For example, we have both written recently about the overarching themes around which we organize our introductory psychology courses (Hardin, in press; Jhangiani, in press). Although our organizing themes are ostensibly quite different (*seeing the world like a psychologist* versus *adopting open practices*), what unites them is a focus on cross-cutting skills that are highlighted and practiced regardless of the course content. The first author has students create freely available resources (e.g., instructional videos, Wiki articles, op ed pieces, etc.) that serve both the public good (e.g., by disseminating and applying psychological

science) and the students themselves (e.g., by serving as an electronic portfolio for potential future employers). The second author engages students in distinguishing questions that can and cannot be answered scientifically, turning real-world issues and problems into empirical questions, and considering the kinds of evidence that would address different kinds of questions. In both cases, students are engaged in applying skills of *using scientific reasoning and critical thinking* and *applying content-based knowledge* throughout the course, regardless of the specific content being covered. In both cases, we have found that focusing first on these skills, with the specific content being the vehicle through which these skills are developed, has invigorated our teaching by making the course more coherent, giving us a purpose for covering specific content, and engaging students with the relevance of the material.

A clear recommendation for instructors that emerges from our review is that instructors focus at least as much attention on fostering and assessing broad skills as they do on teaching and assessing specific course content. Too often, introductory instructors seem to become overwhelmed by the details of the course content, focusing all of their effort, for example, on teaching students to distinguish the conditioned from unconditioned stimulus, without teaching students how to apply the principles of classical conditioning. Instructors should be encouraged to embrace the principles of backward course design and distinguish the concepts or ideas that are important or worth being familiar with from the *enduring understandings* (McTighe & Wiggins, 1999; Wiggins & McTighe, 2006). Once instructors have identified these critical learning outcomes, they should then consider the evidence they would accept that students have achieved them (i.e., their assessment strategies). Then, and only then, should an instructor begin to plan the specific instructional strategies and learning activities for meeting those objectives, including ensuring that the students fully grasp how these are being

operationalized.

In training new graduate student instructors of Introductory Psychology, the second author recently had the doctoral students go through such an exercise of identifying these three levels of content (enduring understandings, important ideas, content worth being familiar with) in a typical Learning chapter from an Introductory Psychology textbook. The graduate students reported that this exercise fundamentally shifted the ways in which they thought about teaching the content. Before the exercise, most would have approached preparing their lectures by outlining the chapter content and then attempting to "cover" (i.e., spend class time lecturing on) as much of it as possible in whatever time they had allotted. Following the exercise, the novice instructors reported a broader focus on critical thinking and application skills, ideas for interactive activities and demonstrations, and creative reorganizations of the chapter content to better foster students' focus on the bigger picture ideas.

Inherent in these discussions were the doctoral students' ideas about assessing their students' learning of the bigger picture objectives; for example, rather than focusing exam questions solely on a straightforward discrimination of positive from negative reinforcement, the doctoral students generated ideas for questions that would require undergraduates to distinguish behaviors that might be changed through classical versus operant conditioning, or through punishment versus reinforcement. They described classroom activities in which students would work in groups to generate solutions to real-world problems (e.g., changing a roommate's or pet's or child's behavior), with embedded discussions of ethical issues in punishment and cultural differences in parenting.

More recently, the second author integrated this backward design approach with the APA working group recommendations by having novice instructors prepare their class sessions

using a worksheet that encouraged them to identify enduring understandings, assessment

strategies, teaching methods, and ways of integrating cross-cutting themes. Rather than

outlining the content in the textbook chapters, the novice instructors instead focused on

distilling entire chapters down into bigger picture learning goals, which tended to be at least as

skills- as content-focused (see Appendix A for an example of such a worksheet as completed by

an actual graduate student in the course).

Instructors at all levels and institution types need this kind of encouragement to

prioritize the skills-focused learning outcomes along with the content-focused outcomes, as

well as explicit training in backward course design and methods for using the course content to

achieve the higher-order skills-focused goals. Although instructors active in the scholarship of

teaching and learning may already be familiar with the ideas of backward course design, most

introductory instructors likely are not. Thus, we not only support the recommendation of the

APA working group to provide explicit training for Introductory Psychology instructors, but

also recommend that this training involve an explicit focus on backward course design. Not

only will such a focus improve the Introductory Psychology course, but it will also have

additional benefits for program evaluation and accreditation.

Recommendations

To summarize our five recommendations for a more explicit skills focus in the

Introductory Psychology course:

1. Across all institutional and course contexts, Introductory Psychology instructors

   should deliberately embed the fundamental skills of *applying content-based*

   knowledge and *using scientific reasoning and critical thinking* within their course and

   assessments.

2. Instructors of Introductory Psychology should provide students with multiple opportunities to develop and apply these skills across the course.

3. Instructors of Introductory Psychology should focus at least as much attention on teaching and assessing these two broad skills as they do on teaching and assessing specific course content (see Landrum & McCarthy, in press, for some suggestions for assessing critical thinking in psychology, and Gormally, Brickman, & Lutz, 2012, for a description of a measure for assessing scientific literacy that the second author has successfully incorporated into assessment in psychology).

4. Structured training for Introductory Psychology instructors should include an explicit focus on backward course design.

5. Efforts should be made to identify a more specific set of skills that can be agreed on as universal outcomes for introductory psychology.

Introductory Psychology is simply too important a course to permit its potential to be hijacked by the pressure to simply "cover the content" without paying equal heed to skill development and assessment. This paper represents both a call to the field to live up to our great potential by better utilizing our most powerful outlet and a pathway by which we can do so.

References

American Association of Colleges & Universities. (n.d.). *VALUE rubrics.* Retrieved

from https://aacu.org/value-rubrics

American Association of Colleges & Universities. (2002). *Value added assessment of*

liberal education, Peer Review double issue. Available from:

https://secure.aacu.org/store/detail.aspx?id=PRAS

American Association of Colleges & Universities. (2008). *College Learning for the*

New Global Century. Available from:

http://secure.aacu.org/store/detail.aspx?id=LEAPRPT

American Association of Colleges & Universities. (2011). *The LEAP vision for*

learning: Outcomes, practices, and employers' views. Retrieved from

http://www.aacu.org/sites/default/files/files/LEAP/leap_vision_summary.pdf

American Association of Colleges & Universities. (2015). *General education maps and*

markers: Designing meaningful pathways to student achievement. Available

from https://secure.aacu.org/store/searchresults.aspx?categoryid=27

American Psychological Association. (2007). *Guidelines for the undergraduate*

psychology major. Retrieved from

http://teachpsych.org/Resources/Documents/otrp/resources/apapsymajorguidelin

es.pdf

American Psychological Association. (2013). *APA guidelines for the undergraduate*

psychology major: Version 2.0. Retrieved from

http://www.apa.org/ed/precollege/about/psymajor- guidelines.aspx

American Psychological Association. (2014). *Strengthening the common core of the*

Introductory Psychology course. Washington, DC: American Psychological

Association, Board of Educational Affairs. Retrieved from

https://www.apa.org/ed/governance/bea/intro-psych- report.pdf

Dunn, D. S., Beins, B. C., McCarthy, M. A., & Hill, G. W., IV. (Eds.). (2010). *Best*

practices for beginnings and endings in the psychology major: Research, cases,

and recommendations. New York: Oxford University Press.

European Federation of Psychologists' Associations. (2013). *EuroPsy: EFPA*

regulations on EuroPsy and Appendices. Retrieved from http://www.europsy-

efpa.eu/sites/default/files/uploads/EuroPsy%20Regulations%20July%202013.pd

f

Gerow, J. R. (2010). Learning objectives for Introductory Psychology: May I object? In

S. A. Meyers & J. R. Stowell (Eds.), *Essays from e-xcellence in teaching* (Vol.

9, pp. 11-16). Retrieved from http://teachpsych.org/ebooks/eit2009/index.php

Gormally, C., Brickman, P., & Lutz, M. (2012). Developing a Test of Scientific

Literacy Skills (TOSLS): Measuring undergraduates' evaluation of scientific

information and arguments. *CBE—Life Sciences Education, 11,* 364–377.

Griggs, R. A., & Jackson, S. L. (2013). Introductory psychology textbooks: An

objective analysis update. *Teaching of Psychology, 40*, 163-168.

doi:10.1177/0098628313487455

Gurung, R. A. R. (2013). Introduction. In S. Afful, J. J. Good, J. Keeley, S. Leder, & J.

J. Stiegler-Balfour (Eds.), *Introductory psychology teaching primer: A guide for*

new teachers of PSYCH 101 (pp. 3-5). Retrieved from

http://teachpsych.org/ebooks/intro2013/index.php

Gurung, R. A. R., Hackathorn, J., Enns, C., Frantz, S., Cacioppo, J. T., Loop, T., &

  Freeman, J. (in press). Strengthening introductory psychology: A new model for

  teaching the Intro Course. *American Psychologist.*

Halonen, J. (2011). *Are there too many psychology majors?* White paper prepared for

  the State University System of Florida Board of Governors. Retrieved from

  http://www.cogdop.org/page_attachments/0000/0200/FLA_White_Paper_for_co

  gop_post ing.pdf

Halonen, J. S., Harris, C. M., Pastor, D. A., Abrahamson, C. E., & Huffman, C. J.

  (2006). In D. S. Dunn & S. L. Chew (Eds.), *Best practices for teaching*

  introduction to psychology (pp. 195-208). Mahwah, NJ: Erlbaum.

Halpern, D. F. (Ed.). (2010). *Undergraduate education in psychology: A blueprint for*

  the future of the discipline. Washington, DC: American Psychological

  Association.

Hardin, E. E. (in press). Seeing the world like a psychologist: Teaching Introductory

  Psychology students to apply the science of psychology to the real world. In D.

  S. Dunn, B. M. Hard, & R. Calfee (Eds.). *Thematic Approaches for Teaching*

  Introductory Psychology. Cengage.

Homa, N., Hackathorn, J., Brown, C. M., Garczynski, A., Solomon, E. D., Tennial, R., Sanborn,

  U. A., & Gurung, R. A. R. (2013). An analysis of learning objectives and course

  coverage in Introductory Psychology syllabi. *Teaching of Psychology, 40*(3), 169-174.

  doi:10.1177/0098628313487456

Jhangiani, R. S. (in press). Unleashing openness in the teaching of Introductory

  Psychology. In D. S. Dunn, B. M. Hard, & R. Calfee (Eds.). *Thematic*

Approaches for Teaching Introductory Psychology. Cengage.

Landrum, R. E. (2014, July). Why skills matter: Undergraduate psychology education and a

      legacy at risk. Presentation at the Stanford University Psychology One Conference,

      Palo Alto, CA.

Landrum, R. E., & Gurung, R. (2013). The memorability of introductory psychology revisited.

      Teaching of Psychology, 40(3), 222-227. doi:10.1177/0098628313487417

Landrum, R. E., & McCarthy, M. A. (in press). Measuring critical thinking skills. In R. S.

      Jhangiani, J. D. Troisi, B. Fleck, A. M. Legg, & H. D. Hussey (Eds.), *A compendium of*

      scales for use in the scholarship of teaching and learning (pp. 77 – 89). Society for the

      Teaching of Psychology.

Martini, T. S., Judges, R., & Belicki, K. (2015). Psychology majors' understanding of skills-

      based learning outcomes. *Scholarship of Teaching and Learning in Psychology, 1,* 113

      – 124. doi: 10.1037/stl0000019

McTighe, J., & Wiggins, G. P. (1999). *Understanding by design handbook*. Alexandria, VA:

      Association for Supervision and Curriculum Development.

Messer, W. S., Griggs, R. A., & Jackson, S. L. (1999). A national survey of undergraduate

      psychology degree options and major requirements. *Teaching of Psychology, 26*(3), 164-

      171. doi:10.1207/S15328023TOP260301

Milczarski, V. B., & Maynard, A. M. (2015). *There has to be a better way! Using a case study*

      approach to information literacy instruction in psychology courses. In W. Altman, L.

      Stein, & J. R. Stowell (Eds.), Essays from E-xcellence in Teaching (Vol. 14, pp. 45-49).

      Retrieved from the Society for the Teaching of Psychology Web site:

      http://teachpsych.org/ebooks/eit2014/index.php

Miller, B., & Gentile, B. F. (1998). Introductory course content and goals. *Teaching of Psychology, 25*(2), 89–96. doi:10.1207/s15328023top2502_2

Stoloff, M., Good, M. R., Smith, K. L., & Brewster, J. (2015). Characteristics of programs that maximize psychology major success. *Teaching of Psychology, 42*(2), 99-108. doi:10.1177/0098628315569877

Stoloff, M., McCarthy, M., Keller, L., Varfolomeeva, V., Lynch, J., Makara, K., Simmons, S., & Smiley, W. (2010). The undergraduate psychology major: An examination of structure and sequence. *Teaching of Psychology, 37*(1), 4–15. doi:10.1080/00986280903426274

Strohmetz, D. B., Dolinsky, B., Jhangiani, R. S., Posey, D., Hardin, E., Shyu, V., & Klein, E. (2015). Skills matter: Meeting expectations for a 21st century education in psychology. *Scholarship of Teaching and Learning in Psychology, 1*, 200-207. doi: 10.1037/stl0000037

Sullivan, D. F. (2015). *The VALUE Breakthrough: Getting the assessment of student learning in college right*. Washington, DC: AAC&U. Available from https://secure.aacu.org/store/detail.aspx?id=GMSVALUE

Wiggins, G., & McTighe, J. (2006). *Understanding by design* (2nd ed.) Upper Saddle River, NJ: Pearson Merrill Prentice Hall.

Table 1.

APA 2.0 Learning Outcomes for the Undergraduate Major in Psychology cross-referenced with the AAC&U LEAP Essential Learning Outcomes.

APA Learning Goals and Associated Outcomes	Intellectual and Practical Skills						
	Inquiry & Analysis	Critical Thinking	Creative Thinking	Written Comm'n	Oral Comm'n	Reading	Quant. Literacy
Knowledge Base in Psychology							
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			X				
Scientific Inquiry & Critical Thinking							
2.1 Use scientific reasoning to interpret psychological phenomena	X	X	X				X
2.2 Demonstrate psychology information literacy	X						
2.3 Engage in innovative and integrative thinking and problem solving	X	X	X				
2.4 Interpret, design and conduct basic psychological research	X	X	X				X
2.5 Incorporate sociocultural factors into scientific inquiry	X						
Ethical and Social Responsibility in a Diverse World							
3.1 Apply ethical standards to evaluate psychological science and practice		X					
3.2 Build and enhance interpersonal relationships							
3.3 Adopt values that build community at local, national, and global levels							
Communication							
4.1 Demonstrate effective writing for different purposes				X			
4.2 Exhibit effective presentation skills for different purposes					X		
4.3 Interact effectively with others							
Professional Development							
5.1 Apply psychological content and skills to career goals	X	X					
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							

Table 1, cont'd.

APA Learning Goals and Associated Outcomes	Intellectual and Practical Skills			Personal & Social Responsibility		
	Info. Literacy	Team-work	Problem-Solving	Civic Engmnt.	Intercultural Knowledge & Competence	Ethical Reasoning
Knowledge Base in Psychology						
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				X		
Scientific Inquiry & Critical Thinking						
2.1 Use scientific reasoning to interpret psychological phenomena			X			
2.2 Demonstrate psychology information literacy	X					
2.3 Engage in innovative and integrative thinking and problem solving			X			
2.4 Interpret, design and conduct basic psychological research			X			
2.5 Incorporate sociocultural factors into scientific inquiry				X	X	
Ethical and Social Responsibility in a Diverse World						
3.1 Apply ethical standards to evaluate psychological science and practice				X		X
3.2 Build and enhance interpersonal relationships				X	X	
3.3 Adopt values that build community at local, national, and global levels				X	X	
Communication						
4.1 Demonstrate effective writing for different purposes						
4.2 Exhibit effective presentation skills for different purposes						
4.3 Interact effectively with others		X		X	X	
Professional Development						
5.1 Apply psychological content and skills to career goals	X				X	X
5.2 Exhibit self-efficacy and self-regulation		X				
5.3 Refine project-management skills		X				
5.4 Enhance teamwork capacity		X				
5.5 Develop meaningful professional direction for life after graduation						

Table 1, cont'd.

APA Learning Goals and Associated Outcomes	Personal and Social Responsibility		Integrative and Applied Learning
	Foundations & Skills for Lifelong Learning	Global Learning	Integrative Learning
Knowledge Base in Psychology			
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		X	X
Scientific Inquiry & Critical Thinking			
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	X		X
2.4 Interpret, design and conduct basic psychological research			
2.5 Incorporate sociocultural factors into scientific inquiry		X	X
Ethical and Social Responsibility in a Diverse World			
3.1 Apply ethical standards to evaluate psychological science and practice			
3.2 Build and enhance interpersonal relationships	X	X	
3.3 Adopt values that build community at local, national, and global levels	X	X	
Communication			
4.1 Demonstrate effective writing for different purposes			
4.2 Exhibit effective presentation skills for different purposes			
4.3 Interact effectively with others	X	X	
Professional Development			
5.1 Apply psychological content and skills to career goals	X		X
5.2 Exhibit self-efficacy and self-regulation	X		
5.3 Refine project-management skills			
5.4 Enhance teamwork capacity		X	
5.5 Develop meaningful professional direction for life after graduation	X	X	

Appendix A. Example of a completed lesson preparation worksheet that integrates backward course design with cross-cutting themes from APA (2014).

Learning Outcome	Activities to Achieve Outcome	Assessment Strategy
1. Conceptualize and summarize the processes of memory. ● Understand and differentiate between the encoding, storage, retrieval of memory. ● Recognize the specific techniques used to improve memory ● Connect the concept of memory to useful and more efficient study habits	● Use lecture material to highlight processes of memory ● Various mini-activities testing student memory ● Small group and full-class summary discussion on best practices for studying in educational settings.	● (Ungraded) Engage in mini activities and discussion with other students. ● Exam questions where students must recognize and differentiate the memory processes
2. Realize that memory is a fallible and paradoxical aspect of human mental life. Understand its importance in the context of bias and critical thinking ● Recognize and produce examples of when memory is most fallible ● Understand the seven sins of memory	● False memory and/or eye witness mini-activities to illustrate the paradoxes of memory. ● Use lecture material to explain (using examples from the text) the seven sins of memory.	● Exam questions asking students to correctly identify examples of the sins of memory.
Cross-cutting themes? *Cultural and Social diversity*	Through lecture material, connect concepts of heuristics, bias, and other fallacies to our false or reconstructed memories	Contribution to class discussion of being critical of our own memories.
Ethics	Mini-activity and lecture references to injustices in our social and cultural systems that assume an unrealistic objectivity/accuracy of memory.	Student engagement in activities.
Variations in human functioning	Mini-activities embedded in chapter material that highlight the usefulness of memory bolstering techniques. Emphasize effective study tactics and individual preferences.	Student engagement in mini-activities that challenge their existing work ethic and approach to memory.
Applications	Mini-activities about understanding memory bolstering techniques.	Student engagement in mini-activities.

	Lecture emphasize on being critical of one's perceptions.	

Comment from novice instructor: [Introductory Psychology] is a content heavy course. As such, some chapters will need to be pruned in order to cover the subject matter throughout the semester. As such, I have chosen to place memory information in the context of perception (from Chapter 4). I want to emphasize to students the subjective importance of memory and perceptions, as it helps us build perspective. It also helps us become biased, prejudiced, and discriminatory. It also saves us cognitive resources when we can recognize and navigate familiar environments. Memory will be placed at the end of the Biological Pillar material to help condense the content into a cohesive unit.