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Yes, You Can Get a Job With That Major! Goal 5 Strategies for Facilitating, Assessing, and Demonstrating Psychology Students' Professional Development

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Article

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Abstract

The Summit on the National Assessment of Psychology was held on June 2016 to chart a path for assessing student achievement of the goals of the undergraduate psychology major. Our subcommittee was charged with identifying evaluation strategies and tools for students' professional development, which included applying psychology to various careers; engaging in effective self-regulation, project management, and teamwork; and developing lifelong professional skills. In this article, therefore, we not only review a wide range of assessment tools for facilitating and evaluating professional development in psychology, but we also discuss the larger importance of the learning goal both to students and to public perceptions of psychology.

Keywords

professional development, psychology, college students, assessment

The Summit on the National Assessment of Psychology (SNAP) met in June 2016 to discuss the different mechanisms by which instructors could assess the goals outlined in the American Psychological Association (APA, 2013) Guidelines for the Undergraduate Major v2.0. Our team was charged with examining Goal 5: Professional Development, and we nicknamed ourselves the "Chick-fil-A" group because we met in the wake of former Governor Jeb Bush's comment that psychology majors should "realize you're going to be working at Chick-fil-A," (Mills, 2015, para. 2). Based on this very public assertion and commonly held stereotype, we knew we were doing our work in an environment that often questioned the value of psychology in the professional world. That open skepticism has not changed. In May 2020, U.S. Senator Ben Sasse delivered a high school commencement speech in which he told graduates "there will always be money to be made in psychology. No, that's a joke. Do not, if you are headed to college, do not major in psychology. That part's not a joke" (Young, 2020, para. 5).

Contrary to the implied belief of some elected officials, psychology has a myriad of applications useful to any workplace or graduate school. Stromhetz et al. (2015) noted that psychology curricula can promote the development of liberal arts skills associated with future success. Relatedly, the recent APA Committee on Associate and Baccalaureate Education (CABE) Skillful Psychology Working Group identified that many of the skills employers desire are the outcomes of a psychology education (Naufel, Appleby et al., 2018; Naufel et al., 2019). As a bonus,

psychology may provide an advantage over other majors because many marketable skills, such as working in groups, being inclusive, and exhibiting critical thinking, involve psychological constructs. In other words, students of psychology have opportunities both to learn about and practice these skills.

Additionally, the *APA Guidelines for the Undergraduate Psychology Major* (2013) explicitly recognize professional development as one of their five learning goals. Indeed, students graduating with psychology degrees are quite successful at pursing graduate school positions related to psychology or securing employment. Of the 3.5 million psychology undergraduate degree holders in 2017, 499,000 (14%) went on to graduate school directly in psychology, and 30% sought out advanced degrees in other fields (APA, 2018b). Those employed with their psychology bachelor's degree in 2017 worked in 92 different job categories (APA, 2018a). Psychology coursework can cultivate professional skills throughout a

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curriculum with appropriate instruction (Strohmetz et al., 2015), and students appear to be meeting Goal 5 given their successful pursuit of psychology's vast applications.

Unfortunately, even psychology majors may not always recognize that psychology relates to their jobs. Of those who were working with a bachelor's degree in psychology in 2017, only 27% stated their degree was closely aligned with their job (APA, 2018a). Anecdotally, our SNAP team members shared many stories of former students who apologetically claimed that they did not use their psychology major in the context of their current jobs. In fact, though, these students were applying a wide range of acquired skills, such as self-regulation, working in teams, or solving complex problems, but they did not easily connect the skills they learned or refined in the classroom to those they used in the workforce.

Thus, we are faced with pedagogical and assessment challenges associated with this disconnection between psychology graduates' success in the workplace and their, as well as the public's, inability to link these vocational accomplishments to their undegraduate education. Those challenges are the focus of this article. We begin by briefly describing how to foster the application of psychology knowledge and skills to professional settings and communicate those instructional intentions to students. Then, we focus on how to assess relevant knowledge and skills to provide evidence that students are, in fact, meeting this goal. Finally, we discuss how faculty and departments can best demonstrate their contribution to their students' achievement of the Goal 5 professional development outcomes.

Teaching Goal 5: Applying Knowledge to the Professional Setting

The scholarship of teaching and learning in psychology has produced many activities to engage students in the application of content to professional settings and meet APA (2013) Outcomes 5.1–5.5. When it comes to Outcome 5.1, for instance, Spencer (2015) used a consultation model in which students apply psychological knowledge to solve real-world problems by creating programs that foster behavioral changes and by developing program evaluation plans for those programs. Handelsman (2011) discussed ethics used by psychologists in ways that could be applied to other professional scenarios.

Instruction can also promote self-regulation and self-efficacy, the focus of Outcome 5.2, by teaching both content and skills. For instance, a first-year "learning to learn" course emphasized content on how people learn information and regulate themselves (Hofer & Yu, 2003). Similarly, Kazemi et al. (2011) developed a "self-management" assignment—complete with a rubric—to teach students skills akin to self-regulation.

Other strategies can maximize the ability to teach students project management (Outcome 5.3) and teamwork skills (Outcome 5.4). For example, Lacerenza et al. (2018) document the need for teaching successful teamwork strategies that are applicable to professions such as businesses, aviation, and health care. By incorporating such information into the classroom, students not only learn effective strategies for working in groups (Outcome 5.4), but they also learn about the applicability of psychological information to the workplace (Outcome 5.1D).

Finally, Outcome 5.5 includes promoting concrete plans for entering the workplace and developing skills such as those for resume construction or job capture. Budnick and Barber (2018) offer an effective training module for job searches. Appleby's (2018) in-depth career exploration guide for psychology undergraduates includes an extensive list of potential job titles. His resource provides links for more information on the careers to established resources, such as *O*NET* online (O*NET Resource Center, 2020) and the U.S. Bureau of Labor Statistics' (2020) *Occupational Outlook Handbook*, which can provide ideas for mapping acquired knowledge and skills onto careers. Instructors can incorporate these resources and strategies into content-based classes or foster the skills in a psychology-specific careers or professional development course.

Despite these existing strategies to help students achieve professional development goals, they may still feel underprepared to enter the professional realm after graduation. As Landrum et al. (2010) noted, psychology graduates suggested their college experience could be improved by incorporating even more opportunities to learn professional skills such as teamwork and self-regulation. Additionally, the public, including prospective employers, simply may not recognize that psychology equips students with a versatile skill set in part because of stereotypes about the jobs for which majors are qualified. Thus, psychology educators also need to gather data using assessments to provide important evidence to employers about our students and their skills to reduce negative stereotypes about the psychology major. The Project Assessment (PASS) website (pass.apa.org), which resulted from SNAP, is one potential source of such tools, all of which are linked to specific APA (2013) goals. We, therefore, turn now to describing assessment instruments from PASS and the broader research literature and their potential uses as educational interventions and sources of evidence.

Assessing Goal 5: Professional Development

Outcome 5.1: Apply Psychological Content and Skills to Career Goals

Outcome 5.1 lays the foundation for students' professional development by focusing on their ability to apply research and core psychological knowledge to careers and applied work (APA, 2013); the outcome also sets the expectation that psychology graduates will be critical consumers of information and ethical, effective professionals in a diverse world. Among other indicators, Outcome 5.1 includes using research methods in problem-solving, applying psychology ethics in professional domains outside the field, and interacting effectively with diverse groups (see Table 1 for specific indicators).

Application to the professional world. A basic tenet of this outcome is that students recognize that psychology *does apply* to a wide range of careers, not only those with mental health or with "psychology" in the name. One way to assess such recognition

Table 1. Goal 5 Outcomes and Indicators.

Outcomes Students Will	Foundation Indicators Students Will	Baccalaureate Indicators Students Will
5.1 Apply psychological content and skills to career goals	5.1a Recognize the value and application of research and problem-solving skills in providing evidence beyond personal opinion to support proposed solutions	5.1A Describe and execute problem-solving and research methods to facilitate effective workplace solutions
	5.1b Identify range of possible factors that influence beliefs and conclusions	5.1B Disregard or challenge flawed sources of information
	5.1c Expect to deal with differing opinions and personalities in the college environment	5.1C Expect and adapt to interaction complexity, including factors related to diversity of backgrounds, in work organizations
	5.1d Describe how psychology's content applies to business, health care, educational, and other workplace settings	5.1D Apply relevant psychology content knowledge to facilitate a more effective workplace in internships or organizational leadership opportunities
	5.1e Recognize and describe the broad applications of information literacy skills obtained in the psychology major	5.1E Adapt information literacy skills obtained in the psychology major to investigating solutions to a variety of problems
	5.1f Describe how ethical principle of psychology have relevance to nonpsychology settings	5.1F Apply the ethical principles of psychology to nonpsychology professional settings
5.2 Exhibit self-efficacy and self-regulation	5.2a Recognize the link between efforts in self-management and achievement	5.2A Design deliberate efforts to produce desired self-management outcomes (e.g., self-regulation, hardiness, resilience)
	5.2b Accurately self-assess performance quality by adhering to external standards (e.g., rubric criteria, teacher expectations)	5.2B Accurately self-assess performance quality by melding external standards and expectations with their own performance criteria
	5.2c Incorporate feedback from educators and mentors to change performance	5.2C Pursue and respond appropriately to feedback from educators, mentors, supervisors, and experts to improve performance
	5.2d Describe self-regulation strategies (e.g., reflection, time management)	5.2D Attend to and monitor the quality of their own thinking (i.e., make adaptations using metacognitive strategies)
5.3 Refine project-management skills	5.3a Follow instructions, including timely delivery, in response to project criteria	5.3A Develop and execute strategies for exceeding project criteria or, in the absence of such criteria, to meet their own project performance criteria
	5.3b Identify appropriate resources and constraints that may influence project completion	5.3B Effectively challenge constraints and expand resources to improve project completion
	5.3c Anticipate where potential problems can hinder successful project completion	5.3C Actively develop alternative strategies, including conflict management, to contend with potential problems
	5.3d Describe the processes and strategies necessary to develop a project to fulfill its intended purpose	5.3D Evaluate how well the processes and strategies used help a project fulfill its intended purposes
5.4 Enhance teamwork capacity	5.4a Collaborate successfully on small group classroom assignments	5.4A Collaborate successfully on complex group projects
	5.4b Recognize the potential for developing stronger solutions through shared problem-solving	5.4B Describe problems from another's point of view
	5.4c Articulate problems that develop when working with teams	5.4C Generate, apply, and evaluate potential solutions to problems that develop when working with teams
	5.4d Assess strengths and weaknesses in performance as a project team member	5.4D Assess the basics strengths and weaknesses of team performance on a complex project
	5.4e Describe strategies used by effective group leaders	5.4E Demonstrate leadership skills by effectively organizing personnel and other resources to complete a complex project
	5.4f Describe the importance of working effectively in diverse environments	5.4F Work effectively with diverse populations
5.5 Develop meaningful professional direction for life after graduation	5.5a Describe the types of academic experiences and advanced course choices that will best shape career readiness	5.5A Formulate career plan contingencies based on accurate self-assessment of abilities, achievement, motivation, and work habits
	5.5b Articulate the skills sets desired by employers who hire or select people with psychology backgrounds	5.5B Develop evidence of attaining skill sets desired by psychology-related employers

(continued)

Table 1. (continued)

Outcomes Students Will	Foundation Indicators Students Will	Baccalaureate Indicators Students Will
	5.5c Describe settings in which people with background in psychology typically work	5.5C Evaluate the characteristics of potential work settings or graduate school programs to optimize career direction and satisfaction
	5.5d Recognize the importance of having a mentor	5.5D Actively seek and collaborate with a mentor
	5.5e Describe how a curriculum vitae or resume is used to document the skills expected by employers	5.5E Create and continually update a curriculum vitae or resume
	5.5f Recognize how rapid social change influences behavior and affects one's value in the workplace	5.5F Develop strategies to enhance resilience and maintain skills in response to rapid social change and related changes in the job market

Source: Reprinted from American Psychological Association (2013).

is by using the *Value of Psychology in Professional Domains Scale* (VPPDS; Naufel et al., 2018) from the PASS website. For this scale, students read the descriptions of a diverse set of professional organizations. Then, they rate how valuable psychology would be to that organization (from no value to very valuable). The items represent diverse job sectors (e.g., health, tourism, education, business, culture, STEM, government, private industry, law, engineering). Some of the professional domains have clear-cut links to psychology. For instance, *APA Guidelines* (2013) note that students should see the value of psychology in "business, healthcare, educational, and other workplace settings" (p. 33). However, other professional domains, like meteorology, have relevant but less obvious links to psychology. By examining the scores on this scale, instructors can determine where students are most struggling to see the connections between psychology and various disciplines and make improvements to their courses as needed. The validity of the VPPDS needs to be established, but it does have practical effects for bolstering both student knowledge and public appreciation for psychology as a science. Stating that psychology relates to these professions prompts conversations about *how so*, which could encourage students to think more broadly about the applications of their major.

Thomas and McDaniel (2004) developed two other scales of psychology's application to the workplace: *The Psychology Majors' Career Information Survey (PMCIS)* and *The Psychology Majors' Career Information Quiz (PMCIQ).* The PMCIS includes six items about students' perceived knowledge of career-related information (e.g., "I can identify several different fields of study that would allow me to do counseling/therapy, and I understand what each of these involves," p. 23). The PMCIQ, on the other hand, is a 15-item test of common misconceptions about psychology careers (e.g., "Work experience in a clinical setting is more important than research experience when applying to clinical psych graduate programs," p. 25). In separate studies, both the PMCIS and PMCIQ showed significant gains in career planning course students from the first to the last week of the semester. These instruments can be used as pre- and posttest assessments to evaluate careers in psychology classes, as interventions to inform students about career options (PMCIS), or as a strategy to debunk

career myths (PMCIQ). That said, these tools are not as broad as the VPPDS, and their age may be an issue. For example, misconceptions of psychology change over time, and although these appear to have face validity, there is at least one item about the need for prior teaching experience to gain admittance to school counseling graduate programs that is not true today nationwide (Thomas & McDaniel, 2004).

Skill acquisition and implementation. Another element of 5.1 is that students should demonstrate the ability to apply their knowledge. Several assessments exist that can identify the extent to which students have acquired such skills. First, Mueller's (2018) *Evaluating Evidence in Support of Research Questions* from the PASS website can assess problem-solving. Students receive a list of evidence ranging from informal testimony from a friend to correlational studies to rigorous experiments, and they rank each source of evidence based on how convincing it is, provide an associated rationale, and then explain what conclusions (if any) can be drawn from it. The author provides an assessment rubric for evaluating responses. The task is listed as only "evidence-informed" on the PASS website since the authors provide no specific data on reliability or validity. Nonetheless, it appears to be a cost-effective task that maps directly onto the 5.1A indicators.

Second, Dekker et al.'s (2012) "neuromyths" measure could be used to assess scrutiny of flawed information sources and overall information literacy. The authors assessed this ability by testing "neuromyths" (i.e., beliefs based loosely on scientific fact, such as learning styles influence learning effectiveness) with secondary teachers in the United Kingdom and the Netherlands using a 32-item questionnaire. The teachers endorsed approximately half of the neuromyths (see Macdonald et al., 2017). This instrument may be useful in assessing students' ability to evaluate information critically and use scientific evidence. Macdonald et al. provide data for how another group (secondary teachers) endorses these beliefs, but it could be tried with psychology majors. If a psychology curriculum is teaching students skills for critically evaluating their knowledge base and for information literacy, those students should endorse fewer myths than Macdonald et al.'s participants.

Third, instructors and departments can evaluate multiple skills relevant to this outcome using the *American Association of Colleges and Universities (AAC&U) VALUE Rubrics*. One of the freely available VALUE rubrics is designed specifically for information literacy, including dimensions such as knowing what information is needed, locating information, critiquing information and its sources, and using information in an effective way, as well as in an ethical (and/or legal) manner (AAC&U, 2009b). Instructors can similarly assess ethical understanding and behavior using the *Ethical Reasoning VALUE Rubric* (AAC&U, 2009a) and adaptability and working with diversity using the knowledge, skill, and attitudinal dimensions of the *Intercultural Knowledge and Competence VALUE Rubric* (2009c). Pike and McConnell (2018) summarized efforts to provide support for the generalizability of the VALUE Rubrics and noted some limitations. However, these rubrics are used across universities in the United States; therefore, they provide some national standard of expectations for students graduating from colleges and universities. Thus, these assessment tools could provide the much-needed evidence that psychology majors are acquiring professional development skills.

Outcome 5.2: Exhibit Self-Efficacy and Self-Regulation

This outcome emphasizes the development of self-management or self-regulation skills and self-efficacy for graduate school or the workplace. Undergraduates are expected to engage in accurate self-assessment, to understand how self-management (e.g., using time well) relates to their achievements, and to use feedback effectively (APA, 2013). For example, they should accurately perceive how they are performing in class or an internship, and they should receive constructive comments from an instructor or supervisor nondefensively and use them to improve performance. The most relevant assessment tools for this outcome are instruments specific to self-regulation, self-efficacy, and metacognition. Although PASS did not include most of them, they have a strong research base in terms of development and psychometric properties and would be useful additions to the site. Importantly, the measures could provide evidence both to faculty and to the public that psychology students are obtaining desired professional skills.

Self-regulation and metacognition. Self-regulatory behaviors, such as meeting deadlines and being dependable, are critical professional skills. Compared to those in other disciplines, psychology students may have an advantage in acquiring such skills because self-regulation is a psychological construct that they may both learn about and practice. Thus, the attribute could be vital as psychology endeavors to demonstrate the quality of their major to employers.

Two measures of self-regulatory behavior in academic contexts might be particularly relevant to instructors. The *Self-Regulation Formative Questionnaire* (SRFQ; Gaumer-Erickson & Noonan, 2018) has appealing "plug and play" features. Students respond to items mapping to subscale scores, including planning, monitoring, controlling, and reflecting. Teachers can administer the SRFQ and view both individual and aggregate results on a website (www.ResearchCollaboationsSurveys.org) that is free to educators. The results are shown on a 100-point scale similar to grades (e.g., 80–89 is a "B"). As an educational intervention, having students complete the SRFQ and reflect on the results may promote a greater understanding of self-regulation processes.

Evaluators might also consider the well-established *Learning and Study Strategies Inventory* (LASSI; Weinstein et al., 2002). The scoring is completed online, and computer-generated reports are provided immediately. Since 1982, the LASSI, currently in the third edition, has undergone extensive item selection and reliability review. The instrument is designed to promote students' awareness of learning and study strategies related to self-regulation aspects of learning. The subscales that best align with self-regulation include Motivation, Test-Strategies, Self-Testing, Time Management, and Use of Academic Resources.

Metacognition, or reflection upon one's own thinking, underlies many self-regulation skills and is relevant to APA (2013) indicators such as self-evaluation of performance and self-assessment of one's thinking. A good assessment option here is the *Metacognitive Awareness Inventory* (MAI; Schraw & Dennison, 1994). Students respond "true" or "false" to a series of statements that reflect metacognitive thinking strategies (e.g., self-assessing whether meeting goals) or behaviors (e.g., self-pacing during work). Results are reported in two domains: knowledge about cognition and recognition of cognition. After administering the MAI, instructors can allocate class time to review and discuss individual items. Beyond its value as an outcome assessment tool, the MAI can be used to teach metacognitive skills by encouraging student awareness of such strategies and their utility in college and the workplace.

Self-efficacy. Self-efficacy refers to a person's belief that they can perform a task or meet a goal (Bandura, 1977; Maddux & Kleiman, 2019). It is not a global construct because a student may have strong self-efficacy in one domain (e.g., time management) but not in another (e.g., working independently). The instruments described below are the exemplars of types of self-efficacy that might be particularly important for psychology students.

The *General Academic Self-Efficacy Scale* (Cassidy & Eachus, 2002) is an academic self-efficacy measure designed specifically for college students, which asks about their confidence in passing exams. The authors report a significant correlation of confidence estimates with a validated measure of academic locus of control. However, the public may find the link between academic skills and employable skills tenuous.

For those seeking a measure of job-related self-efficacy, the *Employable Skills Self-Efficacy Survey* (ESSES) assesses students' self-efficacy for workplace success skills (Ciarocco & Strohmetz, 2018). The inventory taps four skills clusters: communication (writing, speaking, and reading), analytic inquiry (research and information literacy), collaboration (working in groups and leadership), and professional development

(self-management, professional, and technology). The entire inventory takes 10 min, and it has evidence of good internal consistency and test–retest reliability. Taking the ESSES could encourage students to reflect upon the degree to which they are acquiring desirable workplace skills. Departments could use it to assess their effectiveness in teaching employable skills. However, as purely a self-efficacy instrument, not a test of the skills themselves, the extent to which the public would accept that these skills have actually been acquired requires further testing. Still, the measure reinforces the idea that psychology should be cultivating marketable skills, and students could use their ESSES experience to acquire self-knowledge and a language for communicating about skills with potential employers or the public.

Outcome 5.3: Refine Project Management Skills

Outcome 5.3 of the *APA Guidelines* (2013) focuses on project management, which ultimately relies upon both the application of psychological knowledge and self-regulatory skills. Despite the relevance of project management to success in graduate school and the workplace, the PASS website does not list many assessment tools associated with its indicators. Many of those that are provided (e.g., *Thanks for the Memory*, *the Unethical Researcher*) were likely primarily intended to assess psychology content knowledge instead. Although not solely a project management skill assessment, an option on PASS that may be more relevant to professional development is the *Student Performance Expectations and Assessment Record* (SPEAR; Vespia, 2018). The SPEAR is used to assess performance for an internship, group project, research assistantship, or similar experience. It can be used as a formative or summative self- or performance evaluation and, thus, has the potential to enhance student self-awareness and instructor assessment of project management skills. That said, due to the small number of items related specifically to project management, the SPEAR might spark good educational conversations about these skills, but both the reliability and validity of the instrument to measure that construct are in question. No formal research has been conducted on the tool.

A more promising possibility comes from the business literature. Blomquist et al. (2016) developed short (six items; one dimension) and long (22 items; five dimensions) forms of the *Project Management Self-Efficacy Scale* (PMSE). The measure includes items related to the following factors: managing teams, managing stakeholders, developing plans, executing them, and evaluating results (Blomquist et al., 2016). The short version may be more appropriate for psychology students because its items focus more on generalizable project management skills (e.g., communication) than those specific to business settings (e.g., understanding relevant legal issues). Although the instrument is a self-report measure of project management self-efficacy, not a direct performance indicator, Blomquist et al. (2016) argue that the larger management literature points to a relationship between reported self-efficacy and actual behavior.

Overall, the project management outcome provides an assessment challenge for educators, both in terms of linking behavioral indicators to psychology curriculum and of locating instruments that emphasize project management as defined by APA (2013), rather than generic teamwork skills, knowledge of psychology, or project management as a distinct element of the business field. Models do exist in other fields, such as engineering and technology, that involve using a case study or fieldwork as an educational intervention and subsequently evaluating students' demonstrated skills as assessment (e.g., Geithner & Menzel, 2016; Whatley, 2012). That approach could be adapted to psychology using common psychology assignments, such as a group research project in research methods.

Outcome 5.4: Enhance Teamwork Capacity

Outcome 5.4 of the *APA Guidelines* (2013) on teamwork overlaps with project management. Among the skills most requested by employers is the ability to work optimally as part of a team. As Lacerenza et al. (2018) indicate, on-the-job requirements for teamwork and collaboration have steadily increased over the years, making this a crucial priority for psychology students and educators. However, the provision of opportunities for teamwork within many psychology programs is uneven at best and receives no emphasis at all in many psychology courses. As a result, there are two key challenges to addressing this outcome: (1) ensuring that students are afforded at least one opportunity (though, ideally, multiple opportunities) to work on a team-based project and (2) identifying ideal assessment tools to determine the effectiveness of these opportunities.

A search for effective teamwork assessments goes beyond the PASS website and, indeed, beyond psychology. One of the most promising measures for a summative assessment of teamwork is the *Comprehensive Assessment of Team-Member Effectiveness* (*CATME;* Ohland et al., 2013). The CATME involves students making self-assessments of their contributions to a group project, alongside evaluations of their teammates on the same dimensions. Items address each person's contributions to the team; relevant skills, knowledge, and abilities; interactions with teammates; ability to keep the team on track; and the degree to which quality performance is expected from teammates.

In a study intended to compare self-reports versus behavioral observations and teamwork success, Andersson et al. (2017) discussed a procedure that assesses team performance and that could be an additional tool for this outcome. In this procedure, teammates interact virtually to solve real problems while observers watch such interactions. Both teams and observers then provide ratings of team performance. Some of their items involve an individual-level of analysis (e.g., personally feeling like a member of a team), while other items focus on team-level analysis (e.g., observing the team as a whole does not make efficient use of time). This assessment method could be helpful as a teaching tool for students by identifying various components of teamwork and the different perspectives involved in evaluation when solving real-world problems. Additionally, Andersson et al.'s methodology would permit a program-level assessment of the extent to which students have obtained teamwork skills.

As the evaluation of teamwork skills expands to match their perceived importance in graduate and professional settings, more in-depth assessments of the specific elements of effective teamwork may be needed. As an example, the *Inventory for Respectful Leadership* (van Quaquebeke & Eckloff, 2010) focuses on one specific indicator: leadership skills. Sample items include the extent to which the leader " . . . trusts my ability to independently and self-reliantly perform well" and " . . . does not try to hold me responsible for his/her own mistakes" (p. 349). Their scale may be useful for summative assessments of students' leadership abilities by others with whom they work. However, it can also be used as an educational opportunity to teach students about respectful leadership.

Just as leadership is a critical component of teamwork, so too is inclusivity when working with others (APA, 2013). One promising measure in this regard is the *Attitudes Toward Diverse Workgroups Scale* (ADWS, Nakui et al., 2011). This 17-item instrument has two subscales. The Affective subscale measures attitudes toward working in diverse teams, and the Productive subscale measures the recognition of the productivity benefits of working in diverse teams. The instrument has good internal consistency reliability, and the authors took steps to establish convergent and divergent validity. They note that scores moderately correlate with scales assessing prejudicial beliefs and the Big 5 personality traits but do not correlate with social desirability. The authors also report that the ADWS has some predictive power for quality teamwork. Specifically, when working in diverse teams, groups scoring high on the ADWS also had higher quality ideas in brainstorming sessions.

Outcome 5.5: Develop Meaningful Professional Direction for Life After Graduation

APA's (2013) final professional development domain emphasizes having a focused goal and readiness for the workplace and/or graduate school. That includes an array of indicators from identifying and pursuing career-appropriate experiences, to working effectively with a mentor, to having and updating a curriculum vitae (CV; APA, 2013). These outcomes lend themselves to rubric-based performance evaluations, such as critiques of resumes, mock interviews, or research presentations. Students may, however, acquire these skills outside of a psychology curriculum. For example, students may understand their vocational strengths, interests, and abilities because of paid employment experiences, not the classroom. They may learn about the importance of mentoring and presentation skills through cocurricular activities such as student government. In an ideal assessment world, psychology educators who wish to demonstrate that students leave with a meaningful future direction will both assess students' goals and link their development to experiences within the major—a very challenging task.

Career readiness or direction. As students work to develop direction for their futures, they must narrow their goals, develop relevant skills, and engage in honest self-reflection about career readiness. Faculty looking to assess several of these factors might consider the *Career Preparation Self-Efficacy Scale* (Rudmann & Tucker, 2018), which was developed by using or adapting items from two previously published surveys (Perry et al., 2013; Thomas & McDaniel, 2004). The strength of this instrument lies in the fact that it includes statements designed to align with all of APA's (2013) 5.5 indicators. Multiple items relate to career readiness, such as "I understand the importance of seeking out experience (e.g., research groups, internships, work placements) that will help me reach my career goal" (p. 3). Small, local sample validity evidence comes from community college students in a careers in psychology course who saw a substantial increase in scores (40.6–60.9) from pretest to the final week of the semester (Rudmann & Tucker, 2018).

Those interested more specifically in measuring or encouraging students' self-assessment of employability might instead use Barber and Bailey's (2015) 63-item *RAW Potential Assessment*. The authors designed it as part of a larger package of internship supervision resources to help students engage in developmental self-evaluation regarding their skills and professional behaviors in and out of the classroom. Students respond "no," "unsure," or "yes" to a wide range of topics, some of which are directly relevant to selecting courses and experiences that will enhance career readiness and that are even described in the instructions as factors professors might consider in recommendations. Thus, the scale includes statements that range from greeting faculty members by their titles, reading and following the syllabus, and taking responsibility for missing class, to items such as visiting the campus career services' office and participating in research, internships, or student organizations. The individual statements are grouped into three categories consistent with the RAW Model for conceptualizing characteristics important to employability (Hogan et al., 2013): rewarding to work with (R), ability to do well (A), and willingness to work hard (W). This measure is clearly relevant to career readiness, but some items (e.g., reading the syllabus, referring to faculty members by title) may seem too far removed from the workplace. As a newer measure, no norms or psychometric properties are provided. It could, however, be a powerful intervention tool with students who may never have considered the relevance of these behaviors.

Skill articulation and development. APA (2013) also indicates that undergraduates should be able to describe and develop desirable skills for graduate school or the workplace. One instrument from the PASS website seems particularly suited for evaluation of these indicators: the *Professional Development Experiences Checklist* (PDEC; Rudmann, 2018). Adapted from Perry et al.'s (2013) *Academic Skills Inventory–Revised*, the PDEC is a 60-item survey in which students check any listed experiences they have had in eight domains: ethics, oral communication, writing, working in groups, finding and evaluating the literature, research, analyzing quantitative data, and creating documentation of professional experiences. The author provides norms that indicate the number of skills that would be below average, average, or above average for each domain and overall. It is unclear how these norms were developed, however, and no

psychometric properties are provided for the measure. Nonetheless, it has excellent face validity and could be used in both formative (e.g., as students plan their curriculum) and summative assessment.

Development of a resume or CV. Psychology students need to understand the uses and importance of a CV (longer, more narrative, more appropriate for graduate school) or resume (briefer and more focused on attributes of employability) and ultimately create one and keep it updated (APA, 2013). Departments looking for an existing measure to do so can turn to the already-mentioned *Career Preparation Self-Efficacy Scale* (Rudmann & Tucker, 2018), the RAW Potential Assessment (Barber & Bailey, 2015), or the Professional Development Experiences Checklist (Rudmann, 2018), all of which include items specific to creating and/or having a resume reviewed. Direct assessment of student CVs could also be conducted with a rubric, particularly in departments that require students to create one. It will be important, however, to differentiate in any assessment between the quality of the CV itself and the quality and quantity of the students' experiences. This specific learning outcome is about understanding and developing the document; therefore, the rubric would be designed to evaluate its appearance and professionalism, not student accomplishments.

Mentorship. Another important indicator of meaningful professional direction is understanding the importance of mentoring and establishing effective mentoring relationships. A few mentorship scales exist, such as the *College Student Mentoring Scale* (CSMS; Crisp, 2009) and the Mentor Relationship Assessment (MRA; Gullan et al., 2016). When using the CSMS, students rate their level of agreement with 25 statements following the stem "While in college, I have had someone in my life who..." (p. 192). Item examples include "serves as a model for how to be successful in college" and "gives me emotional support" (p. 192). When using the MRA, students rate their level of agreement with items such as "My mentor will be honest with me even if it's something I might not want to hear" and "My mentor is aware of the resources the institution has to offer" (p. 1052). These mentorship measures, however, evaluate the quality of a mentoring relationship, which assumes the student has one. Assessments for appreciating and seeking a mentor are currently lacking.

Adaptation to change in the workplace. One of the seemingly more challenging indicators set out in the *APA Guidelines* (2013) is that students should both understand how dramatic societal changes can influence the workplace and one's value in it and then be able to respond strategically to such developments. The most relevant potential measure with the strongest research support comes from the vocational psychology literature: The Career Adapt-Abilities Scale-USA Form (CAAS; Porfeli & Savickas, 2012). The CAAS-USA Form is a 24-item instrument designed to measure four constructs: concern, control, curiosity, and confidence. Porfeli and Savickas (2012) suggest that career adaptability is a psychosocial construct that reflects the resources individuals possess to deal with complex and unfamiliar situations in the workplace brought about by job transitions, changes in job responsibilities or tasks, and even career traumas. Respondents are asked to consider that we all have strengths and weaknesses and to rate the 24 items (e.g., "becoming curious about new opportunities") on a Likert-type scale (5 = *strongest*; 1 = *not strong*; Savickas & Porfeli, 2012, pp. 664 and 667). Although not specific to psychology education or workplaces, the CAAS has been subject to international and domestic research and has strong evidence of reliability and validity via, for example, internal consistency and confirmatory factor analysis (Porfeli & Savickas, 2012; Savickas & Porfeli, 2012).

Summary and Conclusions

We began this piece with a story about high profile denigration of psychology majors and their employment potential, followed by statistics that clearly demonstrate our students are securing employment and pursuing advanced education in a diverse array of fields. These data have clearly not eliminated negative stereotypes about the major, and they have not eliminated concerns from our own students. For example, research suggests that current students and recent alums have difficulty choosing major courses with the greatest relevance to their futures (Rajecki et al., 2004) and seeing how their degree applies to their jobs (Rajecki & Borden, 2010). Furthermore, 21% of psychology majors in a recent survey left a question blank that asked for their career goal, and that sample included both first year students and seniors (Strapp et al., 2018). How can psychology educators change that situation so that public perceptions are more consistent with reality and, more importantly, so that our students more effectively achieve APA's (2013) professional development outcomes and leave with greater confidence and skills? We have provided a possible road map via our examination of the assessment of Goal 5's outcomes. In each area, we have pointed to one or more measurement exemplars that could be used not only for individual and departmental assessment, but also as educational interventions to increase students' knowledge of and self-assessment on important dimensions of career or graduate school readiness. As students become more aware of how their knowledge and skills map onto professional arenas, they will be more likely and more able to communicate this knowledge with employers. And, if our graduates do more readily and effectively articulate the skills and abilities associated with their education, we may find a related increase in public confidence that psychology prepares students for the professional world, perhaps even in unique ways that other disciplines may not.

This road map is not perfect. Many of the assessment instruments described have yet to acquire empirical support and/or need larger, more representative norm groups or research bases. Additionally, some APA learning goal indicators are lacking direct measures at all. Thus, more instrument, rubric, and direct assessment development is needed, as is additional research on existing measures. The PASS website would also benefit from inclusion of some new measures from other fields, such as business and vocational psychology (e.g., previously mentioned

CAAS and PMSE). That said, many of the tools we described are open-access, freely available measures with both assessment and intervention potential. The key will be for programs and instructors to use them more frequently and to develop more (and more representative) data to support them. It is easy for psychology to claim that the major prepares students for the professional world, but actual data demonstrating that they have greater skills than nonpsychology majors would be far more convincing to the public and to policy makers. Therefore, in addition to calls for creating and validating new assessment tools and interventions, it is important to examine the extent to which psychology prepares students differently than other disciplines. In short, we have many of the tools we need; we must now use them to chart a path forward for psychology and its students.

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