Scholarship of Teaching and Learning in Psychology

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The Introductory Psychology Census: A National Study

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Nearly all undergraduate psychology programs in the United States (99%) offer an Introductory Psychology (IP) course (Norcross et al., 2016). Yet, there is a surprising dearth of information relating to the learning outcomes and course designs employed in IP, nor is information readily available regarding the training and support of those who teach it. Over the past 12 years, American Psychological Association (APA) working groups have made recommendations intended to strengthen IP but no empirical data are available concerning the efficacy or impact of those recommendations. This national census of IP instructors, conducted by APA's Introductory Psychology Initiative (IPI), surveyed instructors of the course nationally to investigate how past IP recommendations have been implemented and to develop a baseline understanding of the current state and structure of the IP course. The census was structured in four parts, paralleling the four subgroups of the IPI: Student Learning Outcomes and Assessment; Course Models and Design; Teacher Training and Development; and Student Success and Transformation. We provide an overview of who teaches the course, how it is taught, how instructors' teaching skills are developed and supported, and the extent to which evidence-based learning strategies are incorporated into the IP course.

Keywords: introductory psychology, training, design, assessment

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This article reports on a portion of the work of the larger Introductory Psychology Initiative (IPI), initiated and created by the American Psychological Association's Board of Educational Affairs (at the request of the Committee for Baccalaureate and Associate Education. All materials are available at OSF and details about the APA IPI are available at: https://www.apa.org/ed/precollege/undergrad/introductory-psychology-initiative.

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For the vast majority of students, the college Introductory Psychology course (henceforth IP) is the only formal exposure to the science of psychology they will experience. Although between 1.2 and 1.6 million students annually enroll in the course (Gurung et al., 2016), only approximately 7%–13% of those taking the course go on to major in psychology (the American Psychological Association [APA], 2020a). Nearly all undergraduate psychology programs in the United States (99%) offer an IP course (Norcross et al., 2016). Even the newly revised Medical College Admission Test has applicants demonstrate their knowledge and use of psychological concepts commonly taught in IP (Mitchell et al., 2016). Although a sizeable body of pedagogical research on this specific course exists (e.g., Gurung & Hackathorn, 2018), there is a surprising dearth of information relating to the learning outcomes used by instructors, the mechanics of how the course is taught, and the training of those who teach it. In this article, we provide results of the IP Census, one of the few national surveys of IP instructors, which was a product of the APA's Introductory Psychology Initiative (henceforth IPI). We first outline previous national surveys of IP, summarize the origin of the APA IPI, and then describe the four-part structure of the Census with a brief review of the extant literature relating to IP. Our primary goal is to characterize the central results of the 2019 APA IPI Census related to course student learning outcomes (SLOs), course design, and teacher training.

Past Measurement Efforts for Introductory Psychology

The APA has been in existence for over 125 years and, for much of that time, its leadership worked to gather data about education and training in psychology. In particular, the Education Directorate worked with colleagues in the APA Publications Office and Center for Workforce Studies to conduct national surveys of graduate psychology departments. Reports of these efforts appear in the annually published book *Graduate Study in Psychology* (American Psychological Association [APA], 2020b). Until very recently, however, most measurement efforts were restricted to graduate study. Although there have been numerous conferences organized to discuss undergraduate psychology (e.g., St. Mary's Conference, Puget Sound Conference), no regular surveys of undergraduate education took place (Brewer, 1997).

A new level of professional emphasis on IP began in 2008. In that year, participants at the APA National Conference on Undergraduate Education articulated several high-priority recommendations that were later published in *Undergraduate Education in Psychology: A Blueprint for the Future of the Discipline* (Halpern, 2010) and embodied in the *Principles for Quality Undergraduate Education in Psychology* (American Psychological Association [APA], 2011). Specific to IP, a consensus emerged that IP should be a prerequisite for all other psychology courses and that it should mirror the core model for the psychology major (see Dunn et al., 2010). To address these recommendations, the APA's Board of Educational Affairs (BEA) established a Working Group on Strengthening the Common Core of the IP course (American Psychological Association [APA], 2014).

The Working Group examined the current scope of IP and provided major recommendations relating to course content and delivery (APA, 2014). In particular, the Working Group recommended the development of a plan for a universal assessment of IP and additional training for those who teach it, subsequently releasing a new model for teaching the course, which was published in an *American Psychologist* special issue on undergraduate education (Gurung et al., 2016). The BEA subsequently commissioned a second working group called the Working Group on Introductory Psychology Assessment to address the need for a universal assessment of IP (American Psychological Association [APA], 2017).

Neither working group collected primary data on IP, however, relying instead on secondary sources. Given the dearth of comprehensive research on undergraduate psychology programs, the APA's BEA commissioned a national survey on undergraduate education in psychology, the *Undergraduate Survey of Psychology* (USP). This biennial survey of undergraduate study in psychology is similar to the graduate survey and is an electronic questionnaire that is sent to a sample of undergraduate Departments of Psychology throughout the United States. Launched in 2014 with a small set of questions devoted to IP (due to the survey focusing on the broader undergraduate major), the USP provided the first national data on the design of this course (Norcross et al., 2016). Although limited, the information shed light on

important aspects of the course such as the average class enrollment for baccalaureate programs and the number of courses offering a lab component. There have been other major studies of the psychology curriculum over the years (see Brewer et al., 1993; Stoloff et al., 2010), but none of them focused on the content or organization of IP.

Although the 2014 USP provided a glimpse into the course, the second iteration of the USP took a step further and examined course learning outcomes and assessment methods. Using a nationally representative sample of ($N = 223$) associate and baccalaureate psychology programs, this USP, like the previous one, also relied on department chairs as respondents (Pfund et al., 2018). Interestingly, they showed that approximately one-third of the participating programs incorporated the *APA Guidelines for the Undergraduate Psychology Major, Version 2.0* (American Psychological Association [APA], 2013), either in their entirety or with minor changes, to develop SLOs for the introductory course and that both written assignments and professor-developed quizzes/exams were the most frequently used assessment methods.

The Formation of the Introductory Psychology Initiative

Two APA working groups identified a need for IP to be taught and assessed in a more systematic fashion, but progress toward those goals was stymied by the lack of relevant and detailed data. To address these issues, in 2017, the APA's BEA formed a working group at the recommendation of the Committee for Associate and Baccalaureate Education (CABE). This group, the aforementioned APA IPI, was charged to take a more focused and critical look at IP. The IPI's first task was to conduct a national census of IP to gather empirical data that would reveal how past recommendations had been implemented and to have a baseline understanding of the current state and structure of the IP course.

The IPI comprises four subgroups, each charged with addressing a major focus area related to an aspect of the course. The Student Learning Outcomes and Assessment subgroup examined what students should know and be able to do after taking the course and how their learning can be measured and evaluated. This working group created an overarching framework to advise instructors about how they might think about addressing curricular goals and selecting and implementing assessments that are aligned with SLOs. The Course Models and Design subgroup examined how courses are designed, that is, the number and types of assignments used and types of activities conducted during class. This working group created materials to educate and support instructors in how to effectively implement recommended SLOs and assessment guidelines by sharing various approaches to teaching the course (e.g., face to face and online), and providing guidance for the handling various challenges that arise in an IP classroom (e.g., coverage of material). The Teacher Training and Development subgroup explored the types of training IP instructors have (or lack) and the resources needed to ensure the course is taught effectively. This working group established why training is a unique imperative for teachers of IP, identified evidence-based models for teacher training, and articulated a philosophy of training and support for teachers of IP at all levels grounded in educational development. Finally, a Student Success and Transformation group examined if there is evidence that students gain a deep understanding from their course experiences. This group compiled a list of best practices based on empirical work demonstrating what study techniques are most successful (e.g., quizzing and spaced practice) and showing what indicators (e.g., retention and recruitment to the major) can and should be used to make the case for IP to academic administrators and external constituents (e.g., state boards and taxpayers). Each of the main parts of the Census was tied to the respective charges of the four subgroups and also were informed by the large body of research on factors related to the course (see Gurung & Hackathorn, 2018).

The Structure of the American Psychological Association Introductory Psychology Initiative Census

Researchers studying IP focus on intentional, systematic, modifications to pedagogy made in single classes. The most common research questions relate to topic coverage (Bernstein, 2017), textbook choice (Griggs & Christopher, 2016), and the use of online tools (Becker-Blease & Bostwick, 2016). Researchers have also begun to explore the utility of specific teaching practices, such as problem-based learning (Muehlenkamp et al., 2015). The APA IPI steering committee noted a shortage of information on other fundamental

questions related to constructing, organizing, and teaching the class. The four working groups described below addressed each area.

Student Learning Outcomes

What are the main SLOs used in IP? Most information on the IP course comes from publishers' market research (e.g., Pubtracker) not psychological research studies. In order to establish how students perform and where reform is needed, we first need basic information on how the course is taught, how students fare on learning outcomes and the reliability and validity of the available assessments. Aside from the USP research (Norcross et al., 2016; Pfund et al., 2018), there has only been one other study of IP content. Homa et al. (2013) examined SLOs and course content in 158 IP syllabi solicited from faculty in a national study, the largest focused study of the course to this point. The IPI Census shed more light on SLOs currently used by instructors in the nation.

Course Models and Design

This subgroup considered both varying class size and institutional type (e.g., public and private) and how these factors affect course design and delivery. Some of the existing pedagogical research does address course design issues but focuses more on testing innovative techniques than describing what is done in the class. For example, Becker-Blease et al. (2019) tested the use of modules specifically designed to teach research design and data-based reasoning skills. Using pre- and posttest measures of scientific reasoning in both small and large classes, the investigators showed greater gains in scientific reasoning in treatment conditions compared to control classrooms, where no modules were used. But what are different ways of designing the course in general? To answer such questions, the IPI Census described the teaching practices in the course.

Teacher Training and Development

Psychological science has changed and expanded dramatically over the past few decades, and IP should reflect the evolving science of psychology. Faculty members who teach IP may need to adjust both the content of the course and their methods of teaching it. Teaching the IP course presents unique challenges, including a potentially overwhelming amount of content, unparalleled diversity of audiences and purposes, and far-reaching contextual factors (e.g., class sizes, institution types, and course formats) that add complexity to designing and implementing the course. Further, teachers of IP themselves represent a diverse group both in their areas of expertise as well as their roles in their institutions. IP is commonly taught by high-school teachers, graduate student instructors, part-time faculty, nontenure track instructors, and tenure-track faculty. There is no possible one-size-fits-all training model or set of resources that will support the initial and ongoing training needs of all IP instructors. Given the strong relationship between faculty development activities, on the one hand, and their influence on changes in teaching behavior, classroom performance, and students' learning outcomes on the other hand (Chism et al., 2017), advancing a philosophy or set of principles to guide decisions became our focus. Thus, the Census gathered information about the teachers of the course, their past and present access to pedagogical training, the sources they use to enhance their teaching, and the confidence they have in their instructional capabilities.

Student Success and Transformation

Much of the existing scholarship on teaching and learning in IP examines how students study to retain course content, but IP should also increase students' skills. Cognitive science offers evidence-based guidance on several academic study skills students should develop if they are going to be successful at retaining academic material (Agarwal & Bain, 2019; Dunlosky & Rawson, 2015). Because IP includes basic cognitive science content, the course can help students learn how to implement study skills such as distributed practice, testing, and elaborative processing. In addition, as a frequent general education course, IP may also help students develop the liberal arts skills that benefit their careers (Appleby et al., 2019). IP is one of many general education courses that helps transform students' critical thinking, respect for diversity, and self-management. To learn about how IP can transform students beyond a single course, the Census assessed how frequently instructors incorporate transformational study skills and career skills (two operationalizations of student success) into IP and the methods they use to teach the skills.

The Current Study

The 2019 APA IPI Census is the first comprehensive study of IP instructors. Supplementing previous APA efforts, which targeted department chairs and collected information about the IP course indirectly, this census used a variety of methods, including listservs and snowball sampling, to directly contact course instructors. Carried out over the span of 4 months, the survey aligned to all four areas described above is rich in detail and affords instructors, departments, and colleges a hitherto unseen picture of *who* teaches IP and *how* they do it.

Method

Participants and Procedure

Participants consisted of individuals who had taught the IP course within the previous 12 months. Recruitment occurred in three ways. In Phase 1, APA staff sent out email invitations to a stratified sample of psychology department chairs ($n = 65$) from the USP (see Pfund et al., 2018, for details). APA staff asked chairs to send an invitation to participate and a survey link to IP instructors. We do not know how many chairs complied. Next, APA staff invited all chairs from a separate available list of department chairs ($n = 41$) to participate in the census. An additional 308 IP instructors who indicated an interest in the APA IPI received invitations to participate. Finally, APA staff and IPI committee members used snowball sampling to reach as many IP instructors as possible, including listservs (e.g., Society for Teaching of Psychology, Psi β), newsletters, personal contacts, colleagues, and the APA IPI website (www.apa.org/ipi). Volunteering participants received emails with a link to a Qualtrics survey. Participants were, on average 45.98 years old ($SD = 11.70$) and 64.7% ($f = 530$) identified as female; there were 819 participants overall. Table 1 presents the remaining demographic data from our sample of IP instructors.

Table 1
Frequency Data for Demographic Variables

Variable	*f* (%)
Gender ($n = 814$)	
Female	530 (64.7)
Male	282 (34.4)
Not listed	2 (0.2)
Institution type ($n = 817$)	
High school	67 (8.2)
2-year associate degree-granting college	217 (26.5)
Public baccalaureate college or university	53 (6.5)
Private baccalaureate college or university	145 (17.7)
Public master's university	69 (8.4)
Private master's university	71 (8.7)
Public doctorate university	132 (16.1)
Private doctorate university	59 (7.2)
Not classified	4 (0.5)
Teaching role ($n = 818$)	
Tenure track faculty	448 (54.7)
Nontenure track faculty (full time)	135 (16.5)
Nontenure track faculty (part time)	100 (12.2)
Professional staff/administrator	14 (1.7)
Graduate student	22 (2.7)
High school teacher	64 (7.8)
Other	35 (4.3)
Tenure track rank ($n = 479$)	
Assistant	122 (14.9)
Associate	139 (17.0)
Full	218 (26.6)

Note. Total $n = 819$ and (f) denotes frequency.

Materials and Measure

Participants received a cover letter and a survey separated into five parts. Part 1 was the consent form and Part 2 included a brief demographics section that included questions related to age, gender, and institution type, and questions specific to the IP course (e.g., average class size, number of sections taught per year, etc.). The APA IPI working groups wrote items for Parts 3–5 of the survey. The complete survey is available through Boysen et al. (2019).

Measuring Student Learning Outcomes and Assessment

Three forced-choice Likert-type scale and nominal scale survey items from Norcross et al. (2016) assessed respondents' existing alignment to current APA learning goals/objectives (i.e., *APA Guidelines for the Undergraduate Major, Version 2.0*) (APA, 2013).

Measuring Course Models and Design

Thirteen items assessed different components of course design. These included an inquiry of the frequency and type of course modalities taught (i.e., online, hybrid, and face-to-face) per year. Participants indicated which of 20 topics they

covered in their course. Participants then indicated the degree of challenge (i.e., from *extremely challenging* to *not challenging at all*) each of 18 common obstacles to effective course design (e.g., class size) posed for them. We also asked instructors to indicate how often they use 11 instructional methods (e.g., team-based learning) using a 4-point scale from *never* to *often*.

Measuring Teacher Training and Development

Seven items assessed the kinds and amounts of teacher-training IP instructors had received throughout their educational and professional experiences, as well as which teaching supports or resources were currently being utilized. Type of training was queried using checkboxes, to assess the perceived value of that training (i.e., by ranking the top item) and if the training was specifically for IP (*yes*/*no*). The remaining questions were answered with checkboxes to learn where teachers were gathering resources for teaching (e.g., teaching journals) and whether there was institutional support for teacher training (e.g., in-house training). Using a sliding scale from 0 to 100, instructors rated their confidence in teaching IP content, in their IP teaching skills, in finding evidence-based teaching practices for IP, and in implementing evidence-based teaching practices in IP.

Measuring Instruction Related to Student Success and Transformation Skills

The final section of the IP Census included four questions that used checkboxes to gather information about which study skills (e.g., retrieval practice) and career skills (e.g., critical thinking) were being addressed in the course, how they were being addressed (i.e., through textbook, lecture, and demonstrations), and whether they were presented as stand-alone topics or as a part of other topics (e.g., retrieval practice within memory).

Results

Data Cleaning

Rates of attrition and survey completion varied across parts of the survey. We excluded any participants who made 2% or less progress, as that indicated that they had completed the informed consent but did not advance beyond the first page of the survey ($n = 143$). Using these criteria our initial sample size was 925. For the remaining analyses, we only included participants who had progress indicators confirming they completed the survey items associated with that screen of questions in Qualtrics. As a result of this approach, the number of data points included in the subsequent analyses varied depending on the placement of the questions in the survey, with questions coming later in the survey having fewer respondents.

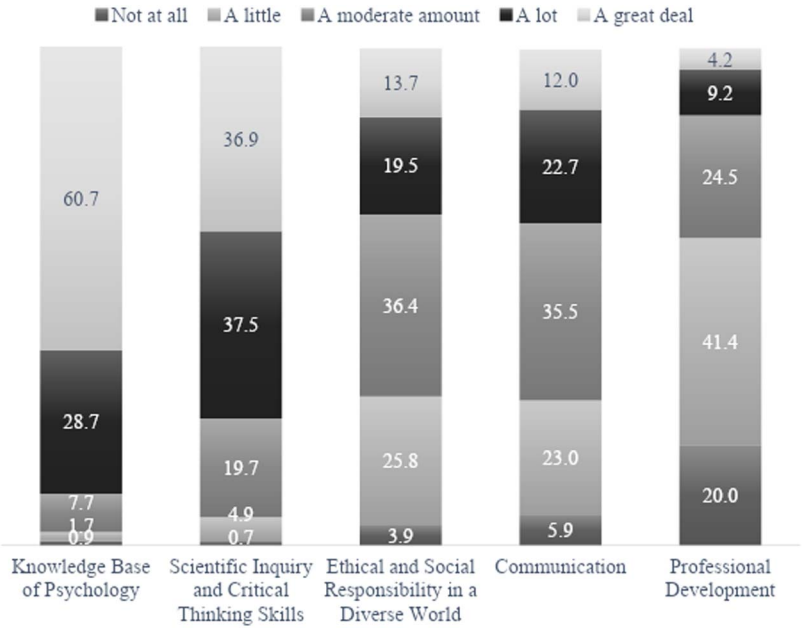
Student Learning Outcomes

Of the 816 valid responses, 63.2% of participants indicated that all sections of IP taught at their institution use the same student learning outcomes, 10.2% of instructors reported that sections share some of the same learning outcomes, 24.8% of instructors select their own student learning outcomes, and 1.8% of participants reported they have a selection of learning outcomes from which to choose. The majority of instructors (65.3% of 803 responders) reported using the *APA Guidelines for the Undergraduate Psychology Major: Version 2.0* (APA, 2013) in some form to develop the student learning outcomes for their class. Participants reported using the *APA Guidelines* either verbatim (18.1%), with some changes (47.2%), or in some other way (14.9%). Of the valid responses, 19.8% reported not referencing or incorporating any of the recommendations from the APA. Figure 1 reports, in percentages, the extent to which each APA learning outcome is addressed in IP. Figure 2 presents the percentage of instructors who indicated they typically taught a particular content area in their IP courses.

Course Models and Design

To examine teaching loads, we summed across all reported courses taught in an academic year, regardless of whether the courses were taught in a semester or quarter format. Removal of one outlier in courses taught and one outlier in the number of IP sections taught resulted in 817 valid responses. The average number of courses an instructor taught per year was 8.04 ($SD = 4.66$), and the average number of IP courses they taught was 3.80 ($SD = 3.01$).

Figure 1
Extent of American Psychological Association Learning Outcomes 2.0 Use in Introductory Psychology



Note. Percentage indicating how much each learning outcome is addressed in Introductory Psychology.

Course Format and Type

We next examined the format of IP courses using descriptive statistics. The average class size for IP was 67.84 students ($SD = 109.26$, $Mdn = 35$, range = 997). In terms of the course scheduling, 87.5% ($f = 717$) reported they teach IP in the semester schedule, followed by 6.7% ($f = 55$) in quarters, and 5.7% ($f = 47$) in other schedules (e.g., 8-week, trimester, and both). Additionally, participants indicated that IP is mostly taught in a one semester/quarter sequence (88.0%, $f = 718$) rather than two semesters (12.0%, $f = 98$). IP was a general education course at 80.4% ($f = 656$) of schools (8% $f = 65$ were unsure). Students served as research participants in 59.2% ($f = 485$) of IP courses (1.3%, $f = 11$ were unsure). The majority of respondents taught IP face-to-face (83.6%, $f = 670$), whereas online (12%, $f = 96$) and hybrid/blended (4.4%, $f = 35$) were much less common.

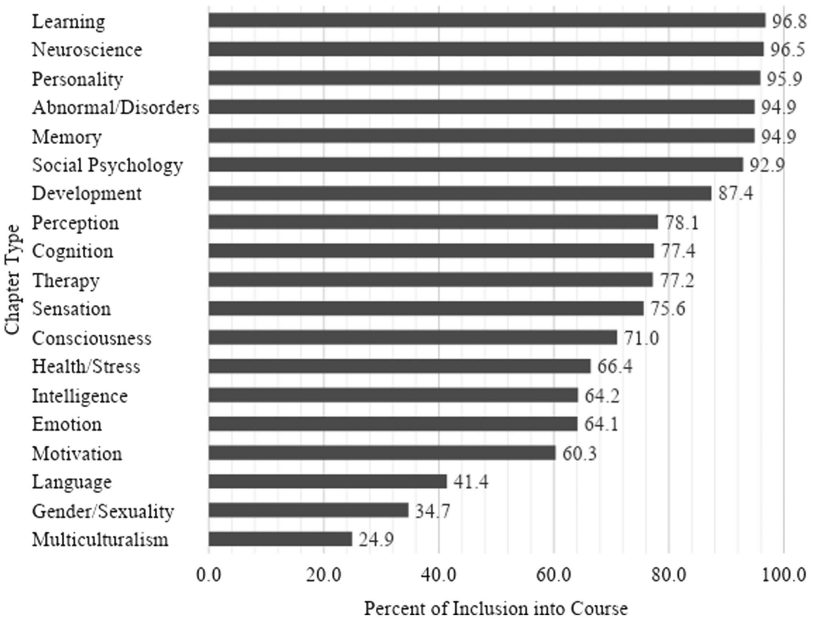
Challenges in Introductory Psychology and Instructional Methods

As indicated in Table 2, the most challenging obstacle in IP was time to thoughtfully grade/provide feedback on writing. This was followed by motivating students to read assignments and think critically; assessing higher-level thinking; and managing students' range of abilities, skills, and knowledge. The least challenging aspect of the course was administrative or state pressure. As indicated in Table 3, the most frequent method of instruction was direct instruction, followed by active learning, and co-operative/collaborative learning. The least used instructional method was just-in-time teaching and team-based instruction.

Textbook and Materials Selection and Use

Half of our sample had full control over textbook selection (52.6%, $f = 436$), 32.7% ($f = 254$) reported that they contribute to textbook decisions, and 11.1% ($f = 86$) reported that the textbook they

Figure 2
Percentage Instructors Including Chapter Topic in Introductory Psychology



use was selected by someone else. Similarly, 52.4% ($f = 407$) reported that the decision to cover specific topics in the course was completely up to them, 36.4% ($f = 283$) reported that they contributed to the decision, and 11.2% ($f = 87$) reported that the decision was up to someone else.

Student Success and Transformation

Study Skills Used and Taught

Instructors selected the study skills they explicitly taught in IP using a list of eight options. We totaled the number of skills selected, and instructors taught an average of 4.47 types of study skills ($SD = 1.78$) out of 16. The most frequently selected study skills explicitly taught were spaced practice (87.7%, $f = 666$), followed by retrieval practice (81.9%, $f = 622$), elaborative rehearsal (80.6%, $f = 612$), collaboration (55.6%, $f = 422$), overlearning (39.9%, $f = 303$), interleaving (25.3%, $f = 192$), and other skills such as mnemonics (6.3%, $f = 48$). Additionally, we measured which instructional methods teachers may use to teach these specific skills. In order of magnitude, 71.1% ($f = 540$) of instructors used formal lecture, 64.7% ($f = 491$) used informal description and discussion, 60.7% ($f = 461$) make students aware of optional resources, 56.3% ($f = 427$) used assigned reading, 56.0% ($f = 425$) used classroom demonstrations, 48.6% ($f = 369$) used assigned materials outside of class, 39.7% ($f = 301$) descriptions of skills in the syllabus, and 6.5% ($f = 49$) used other methods (e.g., extra credit, videos, and peer-to-peer mentorship). Finally, we wanted to understand how skills are incorporated into IP. By far the most common method was to incorporate study skills as part of other course topics such as memory (73.5%, $f = 558$), followed by including study skills throughout the course as multiple independent topics (42.4%, $f = 322$), including it as one independent topic at the start of the course (30.4%, $f = 231$), and other methods (5.8%, $f = 44$, e.g., feedback on quiz performance, office hours, metacognition learning objective, use supplemental instructors).

Career Skills

We were interested in understanding the frequency of IP instructors who incorporated career skills (e.g., critical thinking leadership and oral communication; Naufel et al., 2018) into their course. As illustrated in Table 4, critical thinking

Table 2
Perceived Challenges in Teaching Introductory Psychology

Challenges	*M* (*SD*)	*n*
Time to thoughtfully grade/provide feedback on writing	3.50 (1.14)	750
Getting students to read assignments	3.39 (1.10)	785
Getting students to think critically	3.37 (0.95)	790
Assessing higher-level learning	3.25 (0.98)	786
Managing a wide range of student abilities, skills, and knowledge	3.14 (1.03)	784
Covering required content	2.92 (1.16)	774
Staying current regarding new findings (e.g., the replication crisis)	2.72 (1.02)	788
Running labs effectively	2.65 (1.05)	100
Engaging students	2.63 (0.99)	789
Class attendance	2.22 (0.97)	770
Lack of my expertise on the wide range of topics typically covered	2.11 (0.89)	778
Managing graduate teaching assistants	2.10 (1.06)	135
Making material more personally relevant	2.07 (0.90)	785
Class size is too large	2.01 (1.15)	706
Managing undergraduate teaching assistants	1.98 (0.99)	144
Administration/state official pressure to select particular course materials (e.g., low cost, digital, and open educational resources)	1.83 (1.14)	606
Administration/state official pressure to teach in a particular way	1.78 (1.12)	610
Other	3.80 (1.20)	45

Note. Participants could select the challenges that applied to their situation. Thus, there are different *ns* for each challenge. 1 = *not challenging at all*, 2 = *slightly challenging*, 3 = *moderately challenging*, 4 = *very challenging*, and 5 = *extremely challenging*.

and diversity are the career skills most incorporated into IP, whereas, leadership and hardware/software skills are the least addressed in IP.

Teacher Training

To better understand instructors' experiences in pedagogical training, we analyzed the various types of training instructors had before they began teaching and in the 5 years preceding the Census. Response frequencies can be seen in Table 5. Most teachers (79.7%) had some form of training before they started teaching and in the last 5 years (93.2%). Pedagogy was the most frequent topic covered by the training. However, fewer than half of participants completed a course in teaching before they started as an instructor. Moreover, despite the availability of many types of training specific to IP, the percentage of participants completing any one of them never exceeded 29%.

Table 3
Frequency of Instructional Methods Used in Introductory Psychology

Type of instructional method	*M* (*SD*)	*n*
Direct	3.77 (0.54)	773
Active learning	3.40 (0.62)	774
Co-operative/collaborative learning	2.98 (0.86)	775
Experiential learning	2.89 (0.86)	770
Socratic method	2.77 (0.96)	772
Interteaching	2.46 (1.00)	773
Problem-based	2.24 (0.89)	773
Inquiry-based	2.18 (1.01)	772
Just-in-time teaching	2.14 (0.92)	772
Team-based	1.96 (0.95)	769

Note. Participants were allowed to select only the instructional methods that applied to them. Thus, there are different *ns* for each frequency of instructional method. 1 = *never*, 2 = *seldom*, 3 = *sometimes*, and 4 = *often*.

Participants described the sources of support provided by their institution for engaging in teacher training, the general sources of support they currently use to support or enhance their teaching, and the resources they use for teaching classes. Institutional support occurred primarily through in-house training (55.6%, $f = 424$) and stipend or travel funding (54.5%, $f = 416$), followed by promotion credit (12.2%, $f = 93$) and release time 10.1%, $f = 77$). Participants reported using a wide variety of sources outside of their institution to augment their teaching. Most instructors reported using some of the following sources: Teaching journals (72.1%, $f = 571$), blogs/internet (65.9%, $f = 522$), attending teaching conferences (63.9%, $f = 506$), teaching books (59.6%, $f = 472$), observing other teachers

Table 4
Frequency of Incorporating Career Skills Into Introductory Psychology

Skill	Directly address, *f* (%)	Indirectly address, *f* (%)	Do not address, *f* (%)
Critical thinking	474 (63.0)	341 (45.3)	13 (1.7)
Diversity sensitivity and respect	317 (42.2)	409 (54.4)	58 (7.7)
Integrity and ethics	311 (41.4)	406 (54.3)	75 (10.0)
Self-regulation	289 (38.4)	419 (55.7)	82 (10.9)
Judgment and decision-making	288 (38.3)	354 (47.1)	125 (16.6)
Analytical thinking	277 (36.8)	471 (62.6)	47 (6.3)
Written communication	195 (25.9)	444 (59.00)	119 (15.8)
Information management	176 (23.4)	446 (59.3)	146 (19.4)
Creativity	123 (16.4)	396 (52.7)	232 (30.9)
Collaboration	111 (14.8)	468 (62.2)	178 (23.7)
Adaptability	106 (14.1)	397 (52.8)	252 (33.5)
Service-orientation	98 (13.0)	329 (43.8)	320 (42.6)
Interaction with technology	94 (12.5)	504 (67.0)	156 (20.7)
Oral communication	86 (38.4)	361 (48.0)	301 (40.0)
Leadership	33 (4.4)	226 (30.1)	467 (62.1)
Hardware/software skills	23 (3.1)	280 (37.2)	432 (57.4)

Note. These skills are from the Skillful Psychology Student (Naufel et al., 2018).

(49.2%, $f = 390$), and Society for the Teaching of Psychology resources (38.5%, $f = 487$). Only. 9% of instructors reported not using any sources to support the professional development of IP.

Instructors selected the scholarly professional development activities related to scholarship and publishing that they conduct to improve their teaching. The most frequent activity was presenting research at conferences (39.3%, $f = 311$), followed by presenting teaching demos/strategies at conferences (36.0%, $f = 285$), publishing research in SoTL journals (15.0%, $f = 119$), publishing chapters on teaching (8.8%, $f = 70$), and publishing books on teaching (2.8%, $f = 22$). Experience with these activities varied, but that is expectable given that scholarship

Table 5
Percentage of Introductory Psychology Instructors Reporting Characteristics of Sources of Teaching Training

Training characteristic	Course for credit, *f* (%)	Workshops, *f* (%)	Orientation program, *f* (%)	Online training, *f* (%)	Mentoring, *f* (%)	Being observed, *f* (%)	Conference, *f* (%)	None, *f* (%)
Availability								
Had access before teaching	332 (43.2)	215 (28.0)	254 (33.0)	117 (15.2)	325 (42.3)	289 (37.6)	122 (15.9)	156 (20.3)
Had access in last 5 years	107 (13.9)	491 (63.8)	215 (28.0)	366 (47.6)	132 (17.2)	473 (61.5)	427 (55.5)	52 (6.8)
Topics covered								
Course content	218 (28.6)	160 (21.0)	34 (4.5)	116 (15.2)	228 (29.9)	218 (28.6)	294 (38.5)	26 (3.4)
Pedagogy	395 (51.8)	431 (56.5)	131 (17.2)	248 (32.5)	261 (34.2)	395 (51.8)	365 (47.8)	9 (1.2)
Institutional policies	139 (18.2)	140 (18.3)	290 (38.0)	79 (10.4)	123 (16.1)	99 (13.0)	27 (3.5)	15 (2.0)
Departmental policies	114 (14.9)	90 (11.8)	188 (24.6)	44 (5.8)	148 (19.4)	139 (18.2)	32 (4.2)	20 (2.6)
Technology	128 (16.8)	308 (40.4)	212 (27.8)	242 (31.7)	101 (13.2)	77 (10.1)	177 (23.2)	16 (2.1)
Source was specific to Intro	104 (13.6)	143 (18.7)	47 (6.2)	96 (12.6)	125 (16.4)	205 (26.9)	219 (28.7)	91 (11.9)
Most valuable training type	115 (15.6)	180 (24.5)	26 (3.5)	43 (5.8)	122 (16.6)	62 (8.4)	125 (17.0)	63 (8.6)

Note. $n = 763$.

is not a standard part of the missions of high schools or 2-year colleges.

Despite instructors' varied experiences with training and professional development, they reported high confidence in their teaching abilities. Specifically, when asked to rate their confidence in teaching IP using a scale from 0% to 100%, most instructors reported high confidence in their ability to teach IP content effectively ($M = 86.85$, $Mdn = 90.00$, $SD = 9.67$), in their IP teaching skills ($M = 86.64$, $Mdn = 90.00$, $SD = 10.65$), their ability to find evidence-based practices to improve their IP teaching ($M = 81.37$, $Mdn = 85.00$, $SD = 17.13$), and in their ability to implement evidence-based practices in IP ($M = 79.07$, $Mdn = 80.00$, $SD = 15.79$).

Exploratory Analyses

Given the large sample size, we conducted a series of exploratory analyses to answer key questions relating to the IP course, focusing on questions with broad fiscal and policy applications for all psychology departments nationwide. Specifically, we examined differences across the position type of college instructors (part-time nontenure track, full-time nontenure track, and tenure track) and the type of institution (2-year college, baccalaureate, master's, doctoral, and high school). Because of the exploratory nature of these studies, we did not correct for multiple comparisons.

Do Teaching Loads Vary by Position Type and Institution?

A one-way analysis of variance (ANOVA) revealed a significant difference in the total number of courses taught between position types of college instructors, $F(2, 718) = 21.71$, $p < .001$, $\eta_p^2 = .057$. Post hoc Games–Howell comparisons of means indicated significant differences between all three positions with full-time nontenure track instructors teaching the most courses ($M = 9.35$, $SD = 3.92$) followed by tenure-track instructors ($M = 8.16$, $SD = 3.99$), and part-time nontenure track instructors ($M = 6.02$, $SD = 4.04$).

A one-way ANOVA also revealed a significant difference in the number of IP courses taught between position types, $F(2, 718) = 6.99$, $p = .001$, $\eta_p^2 = .019$. Post hoc Games–Howell comparisons of means indicated that full-time nontenure track instructors ($M = 4.37$, $SD = 2.94$) taught significantly more IP courses than tenure-track instructors ($M = 3.38$, $SD = 2.81$). There were no significant differences in the number of IP courses taught by part-time nontenure track instructors ($M = 3.68$, $SD = 2.63$) compared to full-time nontenure track instructors or tenure-track instructors.

With respect to institution type, a one-way ANOVA indicated a significant difference between institutions in the total number of courses taught, $F(4, 807) = 42.04$, $p < .001$, $\eta_p^2 = .172$. Post hoc Games–Howell comparisons of means revealed that high-school teachers ($M = 9.54$, $SD = 8.47$) and instructors at 2-year colleges ($M = 10.89$, $SD = 4.71$) reported teaching significantly more courses than instructors at the baccalaureate ($M = 6.92$, $SD = 3.36$), master's ($M = 7.12$, $SD = 2.60$), and doctoral ($M = 6.06$, $SD = 3.08$) institutions. There was no significant difference between the total number of courses taught by instructors at 2-year colleges and high-school teachers. Additionally, instructors at master's institutions reported teaching significantly more courses than instructors at doctoral institutions ($p < .01$).

A one-way ANOVA also indicated a significant difference in the number of IP courses taught between institution types, $F(4, 807) = 98.69$, $p < .001$, $\eta_p^2 = .328$. Post hoc Games–Howell comparisons of means revealed that high-school teachers ($M = 6.10$, $SD = 4.14$) and instructors at 2-year colleges ($M = 6.13$, $SD = 3.32$) reported teaching significantly more IP courses than instructors at the baccalaureate ($M = 2.45$, $SD = 1.64$), master's ($M = 2.40$, $SD = 1.23$), and doctoral ($M = 2.75$, $SD = 1.81$) institutions. There was no significant difference between the number of IP courses taught by instructors at 2-year colleges and high-school teachers.

Do Pedagogical Challenges Vary by Position Type and Institution?

We first calculated a total score of the challenges instructors face when teaching IP, such as time to thoughtfully grade and provide feedback on writing, motivating students to read assignments and think critically, and so on. We then conducted a one-way ANOVA to investigate if challenges varied by position type. There was a significant effect, $F(2, 699) = 9.35$, $p < .001$, $\eta_p^2 = .026$. Post hoc Games–Howell comparisons of means indicated that part-time nontenure track instructors ($M = 33.48$, $SD = 7.18$) reported significantly fewer challenges than both full-time nontenure track

instructors ($M = 38.19$, $SD = 8.17$) and tenured or tenure track instructors ($M = 36.17$, $SD = 8.53$). Additionally, full-time nontenure track instructors experienced significantly more challenges than tenured or tenure track instructors. An ANOVA comparing institution types revealed no significant differences in perceived classroom challenges, $F(4, 785) = 1.75$, $p = .138$, $\eta_p^2 = .009$.

Do Student Success and Transformation Pedagogies Vary by Position Type and Institution?

We conducted a one-way ANOVA examining the total number of study skills explicitly taught in IP as a function of institutional type. The ANOVA revealed a significant difference among institutions, $F(4, 749) = 7.08$, $p < .001$, $\eta_p^2 = .036$. Games–Howell post hoc analyses reveal that high-school instructors ($M = 5.20$, $SD = 1.83$) taught significantly more skills than baccalaureate instructors ($M = 4.16$, $SD = 1.97$) and master's instructors ($M = 4.01$, $SD = 1.92$). Instructors at 2-year colleges ($M = 4.66$, $SD = 1.81$) also taught significantly more skills than baccalaureate and master's instructors. Instructors from doctoral institutions ($M = 4.40$, $SD = 2.05$) did not differ significantly from other institutional types.

We conducted a one-way ANOVA examining the total number of study skills taught in IP as a function of instructor position. The ANOVA was not significant, $F(2, 661) = 2.58$, $p = .076$, $\eta_p^2 = .008$. Part-time nontenured instructors ($M = 5.12$, $SD = 4.15$) reported teaching similar amounts of study skills as full-time nontenure track instructors ($M = 4.39$, $SD = 3.36$) and tenured or tenure-track instructors ($M = 4.25$, $SD = 3.24$).

How Does Teacher Training Vary by Position Type and Institution?

We calculated a total score for all types of training participants had before they started teaching and a total score for all types of training they had access to in the last 5 years (see the list of training types in Table 5). An ANOVA showed a significant effect of institution type for training before teaching, $F(4, 759) = 2.53$, $p = .039$, $\eta_p^2 = .013$, and for training in the last 5 years, $F(4, 759) = 7.55$, $p < .001$, $\eta_p^2 = .038$. Post hoc Games–Howell comparisons of training before teaching means indicated that instructors currently teaching at doctoral institutions ($M = 2.46$, $SD = 1.98$) had significantly more types of training before teaching than instructors currently teaching at 2-year institutions ($M = 1.88$, $SD = 2.13$), but no differences emerged between instructors at high-school ($M = 2.07$, $SD = 2.13$), baccalaureate ($M = 2.03$, $SD = 1.91$), or master's ($M = 2.35$, $SD = 2.01$) institutions. For training in the last 5 years, instructors at 2-year institutions ($M = 3.42$, $SD = 2.02$) had significantly more types of training than high-school ($M = 2.05$, $SD = 2.11$), baccalaureate ($M = 2.71$, $SD = 1.75$), master's ($M = 2.77$, $SD = 1.83$), and doctoral ($M = 2.78$, $SD = 1.88$) instructors.

We also conducted ANOVAs for training based on position type. No significant differences emerged for training before teaching, $F(2, 680) = 1.51$, $p = .222$, $\eta_p^2 = .004$, but the difference for training in the last 5 years was significant, $F(2, 680) = 16.54$, $p < .001$, $\eta_p^2 = .047$. Post hoc Games–Howell comparisons indicated that full time, nontenure track instructors reporting the most training in the last 5 years ($M = 3.65$, $SD = 1.91$), followed by tenure-track instructors ($M = 2.85$, $SD = 1.78$), and part time, nontenure track instructors ($M = 2.30$, $SD = 2.04$).

How Does Support for Training Vary by Position Type and Institution?

We calculated total scores for sources of institutional support and sources of resources for teaching classes. We examined if the totals varied by institution type by utilizing one-way ANOVAs. No significant differences emerged between institutions for the total number of sources used (institutional sources: $M = 1.39$, $SD = 1.00$, $F(4, 753) = 2.43$, $p = .046$,[1] $\eta_p^2 = .013$; teaching class sources: $M = 4.27$, $SD = 1.67$, $F(4, 782) = .72$, $p = .577$, $\eta_p^2 = .004$). One-way ANOVAs of differences in sources used by position type yielded significant results for institutional sources, $F(2, 676) = 18.78$, $p < .001$, $\eta_p^2 = .053$, and teaching class sources, $F(2, 699) = 20.81$, $p < .001$, $\eta_p^2 = .056$. Post hoc Games–Howell comparisons showed that all three sources of support were significantly lower for part time, nontenure track instructors (institutional: $M = .89$, $SD = 0.88$; teaching class: $M = 3.38$, $SD = 1.52$) compared to full time, nontenure track instructors (institutional: $M = 1.38$, $SD = 1.04$; teaching class: $M = 4.71$, $SD = 1.66$) and tenure-track instructors (institutional: $M = 1.55$, $SD = 0.96$; teaching class: $M = 4.37$, $SD = 1.67$).

[1] Although the overall comparison was significant, there were no significant post hoc comparisons.

How Does Instructor Confidence Vary by Position Type and Institution?

A series of one-way ANOVAs tested for variations in teaching confidence. Confidence in one's ability to teach effectively varied by institution, $F(4, 783) = 6.95$, $p < .001$, $\eta_p^2 = .034$. Confidence was highest among instructors at 2-year institutions whose ratings were significantly higher than instructors at all other institutions except master's universities (high school: $M = 85.13$, $SD = 10.80$; 2 years: $M = 89.59$, $SD = 9.47$; baccalaureate: $M = 85.03$, $SD = 9.48$; master's: $M = 87.18$, $SD = 9.03$; doctoral: $M = 86.13$, $SD = 9.61$).

Confidence in teaching skills also varied by institution, $F(4, 781) = 5.43$, $p < .001$, $\eta_p^2 = .027$. Confidence was highest among instructors at 2-year institutions whose ratings were significantly higher than instructors at high schools and doctoral universities (high school: $M = 85.73$, $SD = 11.82$; 2 years: $M = 88.89$, $SD = 9.39$; baccalaureate: $M = 84.31$, $SD = 11.70$; master's: $M = 87.83$, $SD = 9.54$; doctoral: $M = 85.73$, $SD = 11.72$).

Confidence in ability to implement evidence-based practices also varied by institution, $F(4, 781) = 5.43$, $p < .001$, $\eta_p^2 = .027$. Confidence was highest among instructors at 2-year institutions whose ratings were significantly higher than instructors at baccalaureate colleges (high school: $M = 75.87$, $SD = 17.70$; 2 years: $M = 81.37$, $SD = 14.91$; baccalaureate: $M = 76.86$, $SD = 17.74$; master's: $M = 81.15$, $SD = 13.81$; doctoral: $M = 78.37$, $SD = 14.89$). No significant variations occurred for ratings for confidence in finding evidence-based practices to improve teaching by institution, $F(4, 779) = 1.99$, $p = .094$, $\eta_p^2 = .010$.

One-way ANOVAs examined if confidence varied by position type. No significant differences emerged for teaching effectively, $F(2, 700) = 0.75$, $p = .473$, $\eta_p^2 = .002$, teaching skills, $F(2, 698) = 0.82$, $p = .441$, $\eta_p^2 = .002$, or evidence-based practices $F(2, 697) = 0.29$, $p = .748$, $\eta_p^2 = .001$.

How Does Training Influence Challenges and Coverage?

The breadth of critical variables assessed allowed us to examine key associations between potentially related factors. We conducted correlational analyses between the summative continuous variables in our survey: Total scores of challenges faced teaching IP, the number of skills taught, the number of chapters taught, the total amount of training received, and age. Because years of teaching could influence most of the variables measured, we first looked at relations with age. Younger respondents reported receiving more training, $r(516) = -.23$, $p < .001$, $r^2 = .05$, but also experienced more challenges teaching IP, $r(755) = -.10$, $p = .007$, $r^2 = .01$. Given the importance of experience (using age as a proxy) we report partial correlations for all other relationships controlling for age (although years of teaching would be a more precise measure, that variable was not assessed on the survey as part of the effort to keep it a manageable length). Instructors with more training, both taught more skills, $r(441) = .19$, $p < .001$, $r^2 = .04$, and more IP content, $r(441) = .12$, $p = .011$, $r^2 = .01$. Those instructors teaching more skills also covered more content, $r(441) = .22$, $p < .001$, $r^2 = .06$ and reported fewer challenges, $r(441) = -.12$, $p = .009$, $r^2 = .01$.

Discussion

What is the current state of teaching and learning in the IP course at the secondary and postsecondary levels? From whom teaches the course, to class size, to the availability of training, to confidence in finding evidence-based support, we use these data to highlight areas where educational leaders should pay attention to issues regarding educational support and development. We summarize key findings and implications in the sections that follow.

Student Learning Outcomes and Assessment

Just over 60% of respondents reported that when multiple sections exist, common student learning objectives are used. Although not specifically designed for the IP course, many instructors turned to the *APA Guidelines 2.0* (APA, 2013) to identify student learning outcomes for the course, with 65% reporting direct application or adaptation of the *APA Guidelines 2.0*. Not surprisingly, instructors indicated that they frequently address *APA Guideline* Goal 1 Knowledge Base in Psychology and Goal 2 Scientific Inquiry and Critical Thinking Skills (percentage responses *a great deal* plus *a lot*; 89.4% and 74.4%, respectively). Areas of psychology

knowledge that instructors cover most frequently include learning (96.8%), neuroscience, (96.5%), personality (95.9%), abnormal psychology/disorders (94.9%), and memory (94.9%).

IP instructors, then, have found utility in a document designed to provide advice about the overall psychology major. Given this unexpected value, it may be beneficial in the revision of the *Guidelines 2.0* (which is underway currently) to specifically address the role of the IP course within the psychology major and its impact on our entire field. The new SLOs designed especially for IP will aid in course design.

Course Models and Design

If a typical instructor profile were extracted from this national study, most teach eight courses a year, and on average about half of those courses are IP sections. The vast majority of individuals teaching the IP course do so in one stand-alone course (rather than a two or more course sequence) within a semester system, and the course routinely satisfies a given institution's general education requirement. Most instructors (over 80%) are also teaching in a face-to-face format (as compared to online or hybrid formats); these survey results were collected, however, before the COVID-19 pandemic. When asked about their challenges in teaching the course, the five highest means fell between the scale anchors of *moderately challenging* (3) to *very challenging* (4): Time to thoughtfully grade/provide feedback on writing; getting students to read assignments; getting students to think critically; assessing higher-level learning; and managing a wide range of student abilities, skills, and knowledge. A key decision for many instructors is the selection of the textbook, and just over half of the respondents indicated that they made the textbook decision themselves.

The type of instructor who self-selected to reply to our study invitation is clearly vested in teaching the IP course. They teach the course frequently, and the types of challenges they report are common to the types of challenges anyone would report in any psychology course at any level. What may be a bit different about the introductory course, however, is that because of multiple sections, general education status (i.e., 80% of participants reported that their IP was a designated general education requirement), and the need for departmental oversight, these instructors may not have as much autonomy in decision-making regarding the actual course (e.g., which chapters to assign, the pace of the course, and how to assess student learning) compared to instructors who have singular control over these same aspects of other psychology courses (e.g., social psychology, cognitive psychology, and abnormal psychology).

As for the day-to-day administration of the course, just over half of the respondents stated that topic selection within the course was completely their own. In departments where instructors have a high degree of autonomy, it may be that very few instructors are teaching very large sections. In departments where there are multiple instructors teaching smaller sections, it makes good sense to have some syllabus control, quality assurance, and consistency across a large number of sections of IP. Without that coordination, there would be potential inconsistencies in the student learning experience (e.g., some instructors might skip over the brain and behavior material, others might overemphasize social and personality psychology), disadvantaging many students' later learning in advanced courses, a possibility which undermines the impact of IP at the institutional level.

Teaching Training and Development

What types of teaching training do academic instructors have before entering the profession, and what type of support do they have access to now (within the last 5 years)? Mentoring, taking a course for credit, and being observed were the most commonly reported methods of training when reflecting on preprofessional development; workshops, observations, conferences, and online training resources were the most common methods of training instructors of IP reported accessing recently. There was considerable variability in access to all forms of training, and training continues to be largely institution specific, meaning that the focus and goals of training opportunities do not necessarily share a common focus, philosophy, or set of objectives. When asked about the most valuable type of training they had received, respondents indicated workshops, which are often likely to focus on a small set of specific issues or topics (e.g., frequent quizzing and in-class demonstrations). Interestingly, very little of any training type or modality is IP-course specific; given the significant

challenges associated with the IP course (i.e., breadth of content, diversity of students and instructor experience), as well as the recommendations of past working groups, the lack of IP-specific training is surprising. Yet, the majority of instructors expressed high confidence where quality teaching goals were concerned, with confidence percentage levels ranging from 79% to 87% across the four groups of instructors. We do not know what this confidence necessarily represents: Is it enhanced confidence from experience teaching the course or perhaps that some instructors are overconfident? If the latter, they may not recognize how they and their students could benefit from more IP-specific training. Researchers may be interested in exploring the sourcing of instructor confidence further.

Given the ubiquity of the IP course, it is surprising that there is not more teacher training and developmental opportunities specifically geared toward IP instructors. With the remarkable diversity of instructors involved in offering the course, it would seem prudent that specialized training and support would be abundant for one of the most popular courses in the nation's undergraduate curriculum, and certainly the most popular undergraduate course in the psychology curriculum. A judicious approach would be for institutions offering the IP course to invest more resources and faculty expertise to enhance ongoing training and support and to ensure that the same evidence-based practices we encourage in delivering the course be applied to the training and support of the instructors who teach it.

Student Success and Transformation

When asked about teaching study skills, IP instructors indicated that the most common skills taught were spaced practice, retrieval practices, and elaborative rehearsal. The top two methods of teaching skills that were reported were formal lecture (50% of respondents) and informal description and discussion (46% of respondents; note that participants could select more than one teaching method). When these instructors were asked about the incorporation of career skills into their IP course, the top five skills mentioned were critical thinking, diversity awareness, integrity/ethics, self-regulation, and judgment/decision-making.

It is a worthy goal to incorporate learning skills into the IP course, and it makes good sense given the content and research base provided by research in cognitive psychology. It is unknown from our data collection efforts, however, if the lectures about spaced *practice* and retrieval *practice* skills were followed up in IP courses by the practice and application of those skills. It is also interesting that self-regulation is identified within the top five career skills. It would be interesting to explore this choice further to determine why so many IP instructors apparently value this skill more than creativity, written communication, collaboration, or adaptability, for example. There are many topics worthy of coverage in the IP course; certainly not every important topic can be addressed, but it would be interesting for future researchers to explore the reasons why IP instructors choose the topics in the manner they do.

Exploratory Results Comparing Nontenure Track Faculty With Tenure Track/Tenured Colleagues

Nontenure track faculty members (both part time and full time) teach the bulk of IP courses. More specifically, nontenure track full-time faculty taught more IP courses than tenure-track faculty members; however, there were no differences between the number of IP sections taught by part-time or full-time nontenure track faculty. Institution type was also found to make a difference: High school teachers and 2-year college instructors taught more IP courses than faculty members at the baccalaureate, master's, and doctoral-granting institutions. There were no differences between the number of IP courses taught by high-school or 2-year college instructors. These findings are not surprising, given that tenure-track faculty at 4-year institutions are required to teach intermediate and advanced psychology courses (many of which would be tied to their specialty areas) in each department or program's psychology major curriculum. Because, as already noted, IP is often a general education curriculum service course, part-time and full-time nontenure track instructors are needed to satisfy student demand for the course.

Pedagogical challenges were reported most acutely by part-time nontenure track instructors, followed by full-time nontenure track instructors,

who reported more challenges than their tenure-track or tenured peers. Surprisingly, institution type had no effect on perceived classroom challenges. This general trend likely points to an important problem, namely that tenure-track colleagues both perceive and perhaps receive more support across the board for teaching IP courses than their nontenure track colleagues. What remains to be determined by future inquiry is if this difference is due to position type (i.e., nontenure track vs. tenure track) or whether tenure-track faculty feel more secure and supported than nontenure track colleagues.

What about the place and importance of teacher training within the last 5 years? Full time, nontenure track instructors reported the most teacher training, followed by tenure-track faculty members, and then part time, nontenure track instructors. Perhaps full-time nontenure track instructors are highly dedicated to the teaching mission of their respective institutions exclusively, as this is the majority duty of their position. In addition, perhaps these differences are driven by institutional priorities tied to investing in skill-building for full-time employees due to the ongoing enrollment demands for IP courses? In a related vein, available support for teacher training (i.e., institutional, general sources, and teaching class sources) was reported to be lowest among part time, nontenure track instructors as compared to full time, nontenure track, and tenure-track colleagues. Again, faculty members who have full-time (and perhaps ongoing) employment opportunities are treated differently than part-time (and perhaps short term) instructors. More opportunities for support and training likely would be beneficial in at least two ways: Enhancing instructors' future IP teaching opportunities for those who desire it and enhancing the course experiences of IP students.

Surprisingly, instructor confidence was not affected by position type; no between-group differences emerged where the ability to teach effectively, teaching skills, or use of evidence-based practices were concerned. Quite possibly, familiarity with and frequency of teaching IP increases colleagues' classroom confidence. Or, it could be that IP educators at all levels believe they should be reporting high levels of confidence since they are already teaching the course. If there is a false sense of confidence or overconfidence present, this could be a barrier to the successful implementation of the best, well-designed teacher-training programs.

Institutional Variations

Significant differences emerged between institution types. For example, faculty at doctoral institutions reported significantly more participation in teaching training prior to beginning their teaching career compared to faculty at 2-year institutions (see Table 5, for the cumulative data). Faculty members' confidence at 2-year institutions was significantly higher than faculty members at all other types of institutions except for master's level institutions. Although we cannot be certain what is driving this difference in confidence (despite the fact that colleagues at doctoral institutions had the most training), it may simply be an example of the Dunning–Krueger effect (e.g., Dunning, 2011). That is, overconfidence exists and persists potentially because those possessing it truly do not know what they do not know where training for teaching IP is concerned.

Faculty members at 2-year institutions teach significantly more courses than faculty at all other locations (i.e., bachelor's, master's, and doctoral) except for high-school teachers. Doctoral institutions have significantly more students enrolled in IP sections compared to all other institutional types, presumably due to larger student enrollments at such institutions, and to satisfy student demands for this course as a common general elective choice. Bachelor's, master's, and doctoral institutions have significantly more variation in their learning objectives across sections of IP compared to high schools and 2-year institutions. Together, these differences illustrate that generalizations about IP should be tempered by consideration of context because the structure and instruction of the course vary considerably among and across institutions.

Limitations

Even with a multisite national study of IP instructors, limitations exist. With multiple recruitment methods for participation, we do not know if participants in this study are representative of the population of individuals who are teachers of IP. When individuals self-select to participate in any survey study, they may be more intrinsically motivated than a typical instructor who did not take part. Said another way, our participants may represent an overly optimistic image of the current state of IP. At present, it is

difficult to assess whether the attitudes and opinions expressed by our sample overestimate, underestimate, or appropriately characterize the views of the entire population of IP instructors.

Conclusion

Introductory psychology is one of the largest enrolling undergraduate courses in the United States (Clay, 2017; Gurung et al., 2016; Steuer & Ham, 2008). With the possible exception of some capstone courses in the psychology major (see Dunn et al., 2010; Grahe & Hauhart, 2013; Hauhart & Grahe, 2015), it is the course that single-handedly unifies all of the psychology at undergraduate institutions across the nation and often gives students from myriad majors their only glimpse of our STEM discipline (Gurung et al., 2016). It is an important course that has received only sporadic study by researchers and national organizations; however, in the last decade or so, serious interest in gauging the magnitude of the effect of the IP course on student learning and development has become palpable (e.g., APA, 2014; Gurung et al., 2016; Pfund et al., 2018). The IPI is next in a sequence of planful efforts to measure the influence of the course, but more importantly, to provide direction for future growth of the course and improvement where its pedagogy is concerned. These census data provide a baseline assessment of an important, even essential, disciplinary resource—introductory psychology. These findings also represent a solid starting point for future investigations concerning course design, instructor factors and teaching efforts, institutional factors, and the student learning outcomes that take place in this essential first course in the discipline of psychology.

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