

# TEACHING PSYCHOLOGY

An Evidence-Based Approach

Jillian Grose-Fifer

Patricia J. Brooks

Maureen O'Connor



WILEY



## Teaching Psychology



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*Jillian Grose-Fifer*  
*Patricia J. Brooks*  
*Maureen O'Connor*

**WILEY**

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*To my students, and to my sons, James and Lucas. Your passion for learning inspires me. J.G.-F.*

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*To my students, and to the best teacher I've ever known, Dennis Murphy, who taught me the meaning of a truly student- (and client-) centered approach, and whose pedagogy of compassion and understanding continues to inspire me each and every day. M.O.C.*





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## Foreword

I first stepped foot in the Graduate Center at the City University of New York (CUNY) in 2012 as a keynote speaker for the third annual Pedagogy Day, CUNY's All-Psychology Conference on the Teaching of Psychology. My most vivid memory of this lively, interactive conference is of the Activity Blitz, a series of rapid-fire sessions in which graduate-student instructors presented engaging, evidence-based teaching techniques that they used in their own classrooms. These burgeoning instructors were passionate and smart, up on their scholarship of teaching and learning, and ready to get their students as excited about psychology as they clearly were in their presentations.

My involvement with Pedagogy Day helped me develop a relationship with the personified sparks for the enthusiasm in these graduate students—the professors, and authors of this book, Jill Grose-Fifer, Patricia Brooks, and Maureen O'Connor. Recognizing a need, these three psychological scientists from three different subdisciplines, but sharing a great interest in teaching, joined together to create a program that filled a clear need at CUNY—a program to train graduate students to be instructors. In addition to the annual Pedagogy Day, this dynamic trio created a graduate Seminar and Practicum on the Teaching of Psychology, in which CUNY psychology graduate students could learn how to teach—a skill too rarely taught in psychology doctoral programs in the United States and elsewhere.

Eventually, through their leadership, CUNY became the institutional home of the national Graduate Student Teaching Association (GSTA), the student arm of the Society for the Teaching of Psychology (STP). Thus, the authors' reach extends beyond the more than 500 psychology doctoral students at CUNY to the thousands of others who have benefited from their work on a national level.

Not content with the legacy they have already created, Drs. Grose-Fifer, Brooks, and O'Connor saw a need for a book like this one—an evidence-based, student-centered guide to teaching that can be used as a resource, but also in courses such as their Seminar and Practicum on the Teaching of Psychology. The book has assessment at its core (with, yes, integrated discussions of learning goals and a whole chapter on backward design)—a necessity in an era of accountability at the individual, institutional, and societal levels. It is a game changer.

*Student-centered and active-learning focused.* First, the book is student-centered, both in terms of its engagement with its audience of emerging instructors and in terms of its guidance as to how to teach most effectively. The student-centered approach veers far from “sage on the stage” lecture-style courses, instead prioritizing active learning. The authors do not use “active learning” as a mere catchphrase. Rather, they explore

exactly what types of active learning actually work, outlining the research on why and giving concrete guidance for all of us who are instructors.

This student-centered, active-learning approach mirrors the ways in which the authors developed their program to train new instructors at CUNY—an approach clear to all who have participated in Pedagogy Day or other GSTA events. As an example, several colleagues and I were invited to run a highly interactive workshop at the 2016 Pedagogy Day. The expectations of the student organizers and their faculty advisors were clear—minimal lecture, maximum interaction! The lively response from the graduate student/new instructor audience made it evident that CUNY has indoctrinated its graduate students to expect this type of learning and, in turn, to create such learning experiences for their own students.

Each time I have returned to CUNY, it has been a privilege to engage with the authors and to witness their continual efforts to develop not just skilled future researchers, but also excellent—and prepared—future instructors. I admit that it is also a lot of fun to interact with the many veteran and novice teachers who are excited to be working together in their quest to help their students learn in effective and interactive ways, driven by the scholarship of teaching and learning.

*Emphasis on diverse learners and content.* Second, the book explicitly engages with the remarkable diversity of the current U.S. undergraduate population. The authors discuss inclusion in the classroom of students from different racial and ethnic groups, from both sexual majority and sexual minority groups, and with disabilities and mental illnesses. They also exhort new and experienced instructors alike to consider other, sometimes more hidden types of diversity in the classroom, including students who are first-generation, who are employed while in school, or who are suffering from housing insecurity. They also explicitly encourage all of us to include cross-cultural and international content examples and research approaches in the classroom. And they champion Universal Design, which helps all students, but especially those who do not disclose disabilities.

The cross-cultural and diversity-oriented approach in their textbook reflects these authors' real-life ethos. Dr. O'Connor, for example, is current the Chair of the American Psychological Association's Task Force on Human Rights. Dr. Grose-Fifer is currently participating in a seminar series at John Jay College, CUNY, designed to help promote its identity as a Hispanic Serving Institution. The participants in this seminar engage in readings and discussion with outside experts, with the goal of revising John Jay courses to better serve their students. And, in an example that I personally witnessed, Dr. Brooks, along with her graduate students, recently invited a six-person panel to speak to her Teaching of Psychology seminar about International Psychology. The group reflected diversity with respect to age, stage of career, gender, country of origin, and native language. Moreover, it included those working in a wide range of psychology careers, from a clinician whose work focuses on trauma victims in countries with recent pasts of ethnic conflict to instructors teaching statistics and research methods courses at both undergraduate and graduate levels.

*The not-so-fluffy-after-all parts of teaching.* Third, I am thrilled that this author team embraces the sometimes dismissed, but immensely important aspects of teaching that fall beyond the “nuts and bolts.” These include a focus on ethics and instruction on how to incorporate both psychosocial interventions and techniques aimed at developing students' metacognition. The former involves an exhortation for us all to become ethical



instructors, in large part by basing our practices on evidence; the latter includes a primer on research into the positive effects of a growth mindset on learning and test-taking. For too long, our field has neglected both an explicit discussion of ethical teaching and an acknowledgment that we may need to bring psychosocial interventions into our classrooms.

Drs. Grose-Fifer, Brooks, and O'Connor make it clear that they value science, and that science includes discussions both of our own ethics and of our students' psychological strengths and limitations with respect to their education. The authors' warmth as instructors, coupled with their firm grounding as scientists, makes them the ideal proselytizers for an ethical, psychosocial, truly student-centered approach to teaching and learning. So, the reader is fully on board when they state, bluntly (and accurately), that "it is no longer ethically acceptable to simply lecture to students," and that "ethical teachers nurture the whole student" by helping them find outside support when necessary. This is wise and welcome advice.

*Skills for real life.* Fourth, Drs. Grose-Fifer, Brooks, and O'Connor return again and again both to the real-life skills that we need as instructors and the ones that we want to instill in our students. Arguably, the most important life skill is critical thinking, which, in a psychology classroom, encompasses both thinking like a psychological scientist and learning to accurately parse the firehose of information we encounter in our daily lives. Yes, the latter includes sussing out "fake news," which has infiltrated many branches of psychological science almost as thoroughly as it has infected the political arena. Not convinced? For just some of the most clear-cut psychology fake news, think crystals for depression, gay conversion therapy, right-brained versus left-brained skills, and learning styles, the last of which the authors—thankfully—directly address.

So, understandably, critical thinking is a central theme of this book. And I particularly love that they refer to one of my all-time favorite teaching tools, the aptly named CRAAP test, which guides students through the consideration of a source's Currency, Relevance, Authority, Accuracy, and Purpose/Point of View!

Beyond critical thinking, this author team addresses a range of important skills. They outline research on the use (and abuse) of PowerPoint, and how to best incorporate multimedia presentations and student-response systems. They summarize research on how to successfully engage students in collaborative work, how to teach students to write and give oral presentations, and to write excellent quizzes and tests, and on how to instruct students in methods of study. The research they present on these areas—and many others—is thorough and current.

But they also offer instructors tangible guidelines to, well, get things done, based both on their own expertise and on a range of superb resources that have been developed by other experts. Need to pick a textbook, and no idea how to start? The authors outline the process for you. Stumped as to what to put on your syllabus? They offer suggestions and a call-out to the excellent STP resource, Project Syllabus. No idea how to begin your first class? They provide suggestions for time-tested icebreakers. Want to develop rubrics? They offer tips, and links to helpful online resources. Need ideas for formative assessments? They have a handy box for that. And if you want to parlay your graduate teaching experiences into a career, they've got you there, too, with guidance on creating a teaching portfolio and writing a teaching philosophy.

*Accessible, engaging, and truly useful.* Beyond their expansive coverage of research, combined with practical advice for just about every aspect of teaching in higher

education, Drs. Grose-Fifer, Brooks, and O'Connor have written a genuinely accessible book. It's a rare skill to be able to be true to the research without being pedantic, and to write an approachable textbook that does not dilute the science. These authors have succeeded.

I anticipate that this book will be used by instructors who are lucky enough to teach the type of Teaching of Psychology course that these authors have developed at CUNY, by psychology departments seeking to help their graduate students develop as instructors in one-on-one advising contexts, and by instructors—both novice and seasoned—who will treat it as a valued resource, dipping into it semester after semester as they make incremental changes in their teaching practices.

I know that I will.

*Susan A. Nolan, Ph.D.  
Professor of Psychology, Seton Hall University*

## About the Companion Website

This book is accompanied by a companion website:

[www.wiley.com/go/Grose-Fifer/teaching-psychology](http://www.wiley.com/go/Grose-Fifer/teaching-psychology)



The website includes:

- Pedagogy Course Instructor Resources
- General Teaching Resources

The Pedagogy Course Instructor Resources are for instructors who are using the textbook to teach a Teaching of Psychology course. We provide a syllabus that we have successfully used with our own students, lesson plans for each class in the syllabus, and grading rubrics for the assignments in each class. The lesson plans include learning objectives and descriptions of classroom activities that we have found to be successful with our doctoral students who are preparing to teach a class, or who are making their existing classes more student-centered. One of our most successful class activities occurs on a regular basis: students (usually working in pairs) create and teach a mini-lesson to their peers, who play the role of undergraduates. To help students understand the expectations of student-centered teaching, we as instructors model these mini-lessons and show how they fit into a lesson plan for an entire class period. We have provided some examples of these in the Pedagogy Course Instructor Resources, and have duplicated them in the General Teaching Resources.

The General Teaching Resources are useful for students in a Teaching of Psychology class as they plan and teach their own classes. However, we anticipate that these materials will also be useful for other new instructors who are starting their teaching careers, as well as for other, more seasoned faculty who want to make their classes more student-centered. The General Teaching Resources include examples of various interactive mini-lessons, associated lesson plans, templates for games such as Jeopardy, and suggestions for rubrics for various types of assignment.

## Introduction

We represent three very different subfields in psychology—Jill Grose-Fifer is a cognitive neuroscientist, Patricia Brooks is a developmental psychologist, and Maureen O'Connor studies the intersection between psychology and the law—but we have a shared passion: teaching! We came up with the idea for this book when all three of us taught at various colleges of the City University of New York (CUNY), arguably one of the most diverse universities in the world. The seeds were sown about 10 years ago, when Maureen O'Connor, as Executive Officer of the Ph.D. program in Psychology at the Graduate Center, was overseeing the training of doctoral students in psychology at CUNY. It became very clear to her that although the majority of the doctoral students had fellowships that required them to teach, most had no training or experience in pedagogy, and they were feeling overwhelmed and unprepared. Together with a group of enthusiastic doctoral students, we formed a Teaching of Psychology Task Force and put together a training program for emerging teachers. This included an annual Pedagogy Day conference and the creation of a graduate Seminar and Practicum on the Teaching of Psychology, which we began running at CUNY in 2012. Over the years, we mostly co-taught (in various combinations) the Teaching of Psychology course, but we consistently struggled to find a manageable set of weekly readings. We wanted to adequately expose our students to the depth and breadth of pedagogical research that would help them hone their developing teaching practices, but it was difficult to achieve this using a small number of primary sources. This book emerged as a result of our trying to summarize the large body of literature on effective pedagogical practices so that students could develop an evidence-based teaching philosophy. We have tried, in particular, to draw on evidence from basic scientific inquiry into learning, memory, and development, in addition to well-designed studies within classrooms. As such, we think that this book is scholarly, but also offers practical advice for the application of evidence from the scholarship of teaching and learning (SoTL) in designing or adapting courses, and maximizing student learning and personal growth.

To orient you to the approach we have taken in writing this book, we want to explain a little more about our teaching philosophies. As undergraduates, all three of us sat through lectures where the professor was the only one talking in the room. This teacher-centered method of instruction is still relatively popular in colleges today. Indeed, many of our doctoral students were taught in this way, but it contrasts strongly with the highly interactive student-centered approach that we have adopted in this book and in our

classes. Like many others in our generation, we were not trained as teachers, but we have improved our teaching by learning from others, and by taking risks and experimenting in our classes. Importantly, we use an evidence-based approach to inform our “experiments.” Research has conclusively demonstrated that learning occurs best when students are active participants in the process, rather than just sitting passively in the classroom listening (or mind-wandering) while the instructor talks. Therefore, the focus of our book is on assisting instructors in adopting a student-centered pedagogy. Since psychology is our area of expertise, we have titled this book *Teaching Psychology*, and have provided many suggestions about how to apply best practices for teaching in psychology classes. However, nothing we say about teaching per se applies only to psychology classes. Therefore, we hope that this book will be helpful to instructors in other disciplines too. Similarly, we have couched much of this material in terms of teaching undergraduates, but the general ideas are also applicable when teaching graduate-level classes. Masters and doctoral students also benefit from active learning, and scaffolded support helps to improve their scientific literacy, critical thinking, communication, and collaboration skills.

In Chapter 1, which serves as an extended introduction to the book, we outline the rationale and evidence for using a student-centered approach. Given the emphasis on students (rather than instructors), we also provide demographic information that highlights the diversity of today’s undergraduate population and make concrete suggestions about how best to support them in ways that are culturally sensitive. This theme of supporting diverse learners permeates the other chapters of the book too, beginning in Chapter 2, where we introduce the concept of Universal Design for Learning, a framework that acknowledges that building the accommodations that many students need into the curriculum not only supports at-risk students, but benefits all other students, too.

We know from our Teaching of Psychology course that instructors may initially be resistant to adopting a student-centered approach, especially if they have not had personal experience with it. To some, it seems to be a time-consuming and inefficient way of transmitting information—a typical goal of teacher-centered pedagogy. In general, after reading the relevant literature in our Teaching of Psychology class, even reluctant students have gradually become convinced not only that is lecturing a relatively ineffective way of promoting learning, but that teachers of psychology should embrace the tenets of a liberal arts education, a framework that is commensurate with the five broad goals that the American Psychological Association (APA, 2013) endorses for the psychology undergraduate major. APA advocates that, in addition to acquiring a knowledge base in psychology, students are expected to be able to think critically and reason scientifically, communicate well, demonstrate ethical and socially responsible behavior, work effectively with others, and be cognizant of the careers and educational opportunities that they will be qualified for based on the knowledge and skills acquired over the span of their undergraduate studies.

To help achieve these goals, we have devoted chapters to teaching critical thinking, including scientific literacy (Chapter 4), writing (Chapter 6), and learning to collaborate with others (Chapter 5). Critically, throughout the book, we focus on approaches that are likely to help students develop holistically as people. We endorse teaching methods that allow undergraduates to better understand themselves as learners and how they

relate to others, as well as those that help them to develop an awareness of the utility of their knowledge and skills in their post-graduation careers, either in the workforce or in graduate school.

Given our evidence-based approach, it is fitting that our book has a heavy emphasis on the importance of assessment. This is also in keeping with the increasing focus on accountability in higher education. In Chapter 2, we describe how to use backward design (Wiggins & McTighe, 2005) for course planning. This begins with envisioning the skills and knowledge (learning objectives) one wants one's students to have gained by the end of the course, then selecting various assessments to evaluate whether one's learning objectives have been met, and finally, planning the curriculum to provide opportunities for students to develop the requisite knowledge and skills. Although many colleges require that syllabi include learning objectives, they can sometimes be added as an afterthought, rather than being the driving force behind course design. Backward design ensures a more intentional approach to instruction and increases the likelihood that a learning objective is both addressed in the curriculum and assessed in appropriate ways. We provide various models to help instructors design learning objectives that emphasize higher-order thinking. Once these and their assessments are formulated, SoTL-established methods can then be used to help students reach these goals. We describe such methods throughout the book. In addition to the chapters already mentioned, Chapter 3 describes how technology can support student learning (this theme is continued in Chapter 8, where we discuss how to move elements of a face-to-face class online in order to promote learning), while Chapter 7 describes how students learn through the use of testing and by developing a metacognitive awareness of their knowledge and skills, and how to improve them. Chapter 7 also provides evidence for psychosocial interventions that can promote student motivation, a key component of effective learning. In Chapter 2, we introduce the importance of ongoing or formative assessment; this is then touched upon in each subsequent chapter. As teacher-scholars, when we adopt evidence-based best practices (such as those described in the various chapters) in our classes, we have to assess how effective they are for our particular students. Frequent formative assessment allows adjustments to be made on the fly and helps us continually learn how to become better teachers.

Although this book does not focus on teaching online, we are mindful that hybrid and fully online courses are increasingly common in higher education. Teaching an online course for the first time is not trivial; fortunately, there are now many excellent resources available to support instructors using this format. Teaching online requires a lot of technological know-how and upfront course preparation, and Chapter 8 provides strong stepping-stones toward making this transition. Finally, in Chapter 9, we discuss ethics in teaching, with the overarching idea that it is our ethical responsibility to teach our students using empirically established methods. We also describe professional development activities, including writing a statement of teaching philosophy, creating a teaching portfolio, and other ways of becoming a life-long learner as a teacher of psychology.

We test-drove various chapters of this book as it was being written, and found that its evidence-based approach helped our doctoral students to embrace a student-centered teaching philosophy. Moreover, we took note of our students' questions in our Teaching

of Psychology classes and tried to address them in the text. Our hope is that this book will provide guidance to new teachers of psychology, as well as some inspiration to more seasoned teachers wanting to read about current SoTL research. Learning to teach is a process that evolves with experience, and we urge you to use this book as a resource to gradually expand your teaching practice. We welcome your feedback and suggestions. Finally, we wish to thank our colleagues, Kevin Nadal and Kim Case, for providing helpful comments on introductory portions of this book, and Susan A. Nolan, for her enthusiastic encouragement in the foreword—as well as all of our students, past, present, and future, for teaching us so much.



## 1

## Why a Student-Centered Approach to Teaching?

### 1.1 A Paradigm Shift?

In this book, we strongly advocate that instructors approach teaching as they would any other discipline in psychology, by using an evidence-based approach. The scholarship of teaching and learning (SoTL) literature is rich with theory-driven empirical studies that determine best practices for maximizing learning and fostering both social and intellectual development in students. These studies conclusively demonstrate that a *student-centered* approach, as opposed to a *teacher-centered* approach such as lecturing, is by far the most effective pedagogical strategy (Freeman et al., 2014; Johnson, Johnson, & Stanne, 2000). Student-centered classes draw on research from cognitive, social, and developmental psychology, and emphasize active learning and collaboration over passive listening. Rather than being the source of all knowledge, student-centered teachers play a critical role as facilitators by providing structure, guidance, feedback, and support for students as they take on various tasks (Alfieri, Brooks, Aldrich, & Tenenbaum, 2011; Barr & Tagg, 1995). Such support has been associated with student gains in perceptions of their own personal social development (Umbach & Wawrzynski, 2005) and academic skills (Alfieri et al., 2011). Thus, approaching teaching from a student-centered perspective is consistent with the mission of a liberal arts education, in that it contributes to the development of the “whole person.”

We realize that this focus on active learning may require a considerable paradigm shift for new instructors, who are likely to have been educated by teachers who predominantly used lecture-based teaching in their undergraduate classes. Indeed, when we have asked graduate students in our Teaching of Psychology class to list the qualities of their “best teacher,” they have tended to describe those of an excellent public speaker (e.g., knowledgeable, dynamic, entertaining, enthusiastic, funny), as well as caring and supportive attributes (e.g., understanding, caring, warm-hearted, empathetic); for similar results with undergraduates, see Keeley, Furr, and Buskist (2009). Relatedly, when asked to describe the tasks they view as most important when preparing to teach, our graduate students tend to focus on having sufficient content knowledge (e.g., preparing slides and rehearsing lectures, selecting and reviewing textbooks and other readings, making sure that one knows the material), rather than on constructing learning objectives (LOs), designing interactive activities and demonstrations,

and planning how to best assess whether the LOs have been successfully met. Taken together, these data suggest that although novice instructors acknowledge the importance of establishing rapport with their students, they often equate teaching effectiveness with the transmission of as much content knowledge as possible to a class, in an enthusiastic manner.

Teacher-centered instruction not only puts a great deal of pressure on new instructors, who may be worried about their skills as dynamic public speakers or their ability to manage potential “incivilities” in the classroom, but has also been shown to be considerably less effective as compared to a student-centered approach. A meta-analysis of over 200 studies in science, technology, engineering, and mathematics (STEM) classes showed that the grades of students taught using active learning methods were on average half a letter grade higher than among those in lecture classes, with over 50% fewer failing grades (Freeman et al., 2014). Other studies indicate that active learning is associated with lower rates of attrition among college students (Braxton, Milem, & Sullivan, 2000). The overwhelming evidence favoring active learning methods has led Nobel Laureate Carl Wieman to liken lecturing to the archaic practice of “blood-letting in medicine”: blood-letting was endorsed as a therapeutic practice for hundreds of years because patients sometimes got better after its application, likely as a result of other factors (Wieman, 2014). Similarly, students who are taught predominantly in lecture classes *do* learn, but this is most likely attributable to their activities outside of class, such as reading and reviewing the materials (Wieman, 2014).

Current trends in higher education emphasize learning skills over memorizing content, which can quickly become outdated in our rapidly changing world. In 2005, the Association of American Colleges and Universities (AAC&U) launched the Liberal Education and America’s Promise (LEAP) initiative, which recognized that college graduates need strong intellectual and practical skills in order to enter into and survive in the workforce (<http://www.aacu.org/leap>). Like the American Psychological Association (APA) Guidelines for the Undergraduate Psychology Major (American Psychological Association, 2013), the AAC&U advocates that undergraduate education should produce improvements in many areas, including critical thinking (CT) and the solving of authentic problems related to real-life situations, oral and written communication, information and technological literacy, scientific inquiry and analysis, and collaborative teamwork. Developing metacognitive skills about what and how best to learn has also been linked to better academic performance in terms of higher test scores and GPA (Coutinho, 2008; Everson & Tobias, 1998; Nietfeld, Cao, & Osborne, 2005; Young & Fry, 2012). Both LEAP and the APA provide well-rounded visions of what constitutes a good education, by requiring that students are engaged as agents in the learning process, with instructors serving as their guides. The Society for the Teaching of Psychology’s (STP’s) educational taskforce has also suggested that model instructors use methods that actively engage students in the learning process (Richmond et al., 2014).

We argue that using a student-centered perspective puts less pressure on novice instructors, by recognizing that an effective teacher does not need to be extraverted or a stand-up comedian. As Bain (2011) reported in his national study of what the best college teachers do, master teachers challenge their students and help them learn *how* to think, rather than *what* to think. This means that anyone can become a better teacher. Instructors can learn the best ways to facilitate the development of broad-based skills (e.g., CT, information and media literacy, communication, scientific inquiry and analysis, collaboration) in their

students. Therefore, with training and experience, instructors should be able to engage students in purposeful problem solving, analysis, and discussion of complex issues, while building respectful communities that value diverse viewpoints.

## 1.2 Setting the Stage for Transformative Learning

Bain (2011) found that the best college teachers across the United States all helped their students to engage in deep learning by encouraging them to think for themselves. In many cases, transformative learning occurred when instructors gave their students the confidence to take risks and learn from their mistakes. Students were able to alter their long-standing beliefs through knowledge constructed from their own explorations. Although they found classes in which they had to think for themselves challenging, they were motivated to learn because they were able to focus on topics that they found interesting. Echoing the tenets of critical (Freire, 1996), feminist (Brunner, 1992; Robinson-Keilig, Hamill, Gwin-Vinsant, & Dashner, 2014; Scanlon, 1993), and intersectional (Case, 2017) pedagogy, Stetsenko and colleagues have advocated for a transformative activist approach to learning that increases the agency of underserved students and leads the way to social change (Stetsenko, 2017). Within this framework, students identify personal issues that impact their lives and learning, and work collaboratively to research potential solutions to problems of inequality, with the goal of promoting both personal and community agency as they make commitments to social justice (Podlucká, 2017; Vianna, Hougaard, & Stetsenko, 2014; Vianna & Stetsenko, 2017).

## 1.3 Knowing Your Students

Establishing strong rapport in the classroom is of paramount importance if student-centered teaching is to be successful. Positive faculty–student interactions increase feelings of social integration and institutional commitment, which in turn increase student retention (Braxton & McClendon, 2001). For some of you, your own experiences as undergraduates may be quite different from those of your students. Given the diversity of backgrounds of today’s student body, regular self-reflection about your world views, implicit biases, and privileges (Case, 2017; Stuart, 2004; Sue & Sue, 2016), as well as taking the time to get to know your students, their particular strengths, and the challenges that they face, will help you to understand how best to support their learning. We begin with a brief review of the general characteristics of today’s undergraduates, including some of the challenges they face, and offer concrete suggestions for how to support them in their learning, by building rapport, fostering inclusivity, and teaching in a culturally responsive, student-centered way.

### 1.3.1 Connecting Identity with Motivation for Learning

In 2014, just under 64% of the 17.3 million undergraduates in the United States (including 88% of undergraduates at 4-year institutions) fell in the “traditional” 18–24-year-old age range (National Center for Education Statistics, 2016a), underscoring the fact

that very many other students return to school after years in the workforce, in the military, or at home raising children. Today's students are acutely aware that having a college education significantly increases their likelihood of finding a good job and that most well-paying jobs require a college degree (Chen, 2017; White House Council of Economic Advisors, 2014). Indeed, it has been estimated that attaining a degree from a 4-year institution after graduating high school almost doubles a person's life-time earnings (Carnevale, Smith, & Strohl, 2010). Thus, the majority of today's undergraduates may be pursuing higher education in order to gain or improve their employment credentials, not because they have an intrinsic interest in the sciences and liberal arts. Furthermore, only 20–24% of psychology majors actually enroll in graduate education (American Psychological Association, Center for Workforce Studies, 2014). Therefore, students are more likely to be motivated when their course LOs highlight the development of critical skills or knowledge that will be helpful in the workplace, as well as in graduate school.

### 1.3.2 Teaching Digital Natives

Today's younger students are members of the Net Generation or Digital Natives (Prensky, 2001), in that they have grown up in a world in which Internet access and personal computers are widely available. Indeed, students born after the mid-1990s have never known a time when the Internet was not available. However, students from low-income families are more likely to come from homes without broadband Internet and computer access (Anderson, 2017), while older college students sometimes experience difficulties using technology (Tyler-Smith, 2006). Moreover, even tech-savvy digital natives are not yet necessarily capable of evaluating the quality of the information that they have at their fingertips (Gross & Latham, 2013; Gross, Latham, & Armstrong, 2012; Head & Eisenberg, 2009; National Survey of Student Engagement, 2015; Wineburg, McGrew, Breakstone, & Ortega, 2016). In a comprehensive study of over 7800 students from a diverse range of middle schools, high schools, and universities, participants consistently exhibited difficulty identifying website sponsors, evaluating evidence and claims, and assessing the authority and motivation behind information posted on the Internet (Wineburg et al., 2016). Therefore, in this book, we suggest various assignments and strategies for helping students to assess the reliability of information that they find online (e.g., see Chapters 3 and 4 for discussion of the use of the CRAAP test and other ways to encourage information literacy and CT).

Despite the widespread use of digital devices in their daily lives, most college students today (regardless of age) lack experience in using instructional technology, such as the course management systems (CMSs) that are essential for online instruction. Furthermore, they may find it tedious and unrewarding to use these systems to learn on their own at home, despite the promise digital technologies hold for delivering content 24/7 at the convenience and pace of the individual student (Powers, Brooks, McCloskey, Sekerina, & Cohen, 2013). This book emphasizes how multimedia instruction can both enhance learning (see Chapter 3) and help students to develop the confidence they need to work with new technologies in the workplace. However, students are best served when they receive scaffolded support while learning how to navigate online learning platforms (e.g., WileyPLUS, MyLab), CMSs (e.g., Canvas, Blackboard), and other new technologies (Powers, Brooks, Galazyn, & Donnelly, 2016).

### 1.3.3 Our Diverse Student Body

Although many people imagine typical college students as 18–22-year-olds attending a residential 4-year college, the reality is very different. More than 74% of today's undergraduates can be classified as non-traditional; that is, they meet one or more of the following criteria: older than 24 years (adult learner), no high school diploma, financially independent, has dependents, has one or more jobs, attends college part-time, does not live in college residences (Radford, Cominole, & Skomsvold, 2015). In 2014, undergraduates in the United States were characterized as follows: 61% attended 4-year institutions, with the remainder attending 2-year community colleges or technical schools; about 69% attended public colleges or universities, rather than private institutions; and 33% attended 4-year colleges on a part-time basis (National Center for Education Statistics, 2016a). Furthermore, in 2015, 43% of full-time students and 80% of part-time students also had a job (McFarland et al., 2017), and about half of all undergraduates offset the cost of college by living with their immediate family or with more distant relatives (Sallie Mae, 2014). Clearly, “non-traditional” students are now the norm.

In having to juggle a work/school balance, many of today's busy students experience the hassles of commuting and of having to keep up with family responsibilities. For these students, time is particularly precious. Because of the many competing demands they face, adult learners are more likely than their younger counterparts to attend college part-time (National Center for Education Statistics, 2018), and more likely to drop out (Kazis et al., 2007). Commuter students in general are less likely to view attending school social events as an important part of their college life, as compared to those who live on campus (Deil-Amen, 2011). This is particularly worrisome, as student retention is predicted in part by student engagement and by how connected students feel to their schools (Roberts & Styron, 2010). However, student-centered instruction can help to support retention, as it increases faculty–student interaction (Umbach & Wawrzynski, 2005) and provides greater opportunities for students to connect with their peers (see Chapter 5). Both of these factors are likely to lead to increased social integration and, by association, greater feeling of institutional commitment.

The 2010 U.S. Census revealed that 18–34-year-olds in the general population were more diverse than ever before, with about 57% identifying as non-Hispanic White, about 24% speaking a language other than English at home, and 15% being born in a country other than the United States (U.S. Census, 2014). The increased diversity seen in the general population of this generation is also reflected in the current student body (White House Council of Economic Advisors, 2014), especially in broad-access public universities and community colleges, which tend to have wider ranges of students in terms of age, gender, race/ethnicity, and socioeconomic status (SES) as compared to private institutions (Deil-Amen, 2011). Recent estimates also suggest that 2% of undergraduates are undocumented immigrants (Suárez-Orozco, Katsiaficas, et al., 2015), and so face additional challenges. In addition, over one million international students enroll in U.S. colleges and universities each year, with the majority coming from China or India (Institute of International Education, 2017).

Latino/as comprise the largest growing minority group in the United States. Therefore, perhaps not surprisingly, enrollments for Latinx college students have increased significantly in recent years (Krogstad, 2016), especially at community colleges and broad-access public universities (Deil-Amen, 2011). However, graduation rates for Latinx