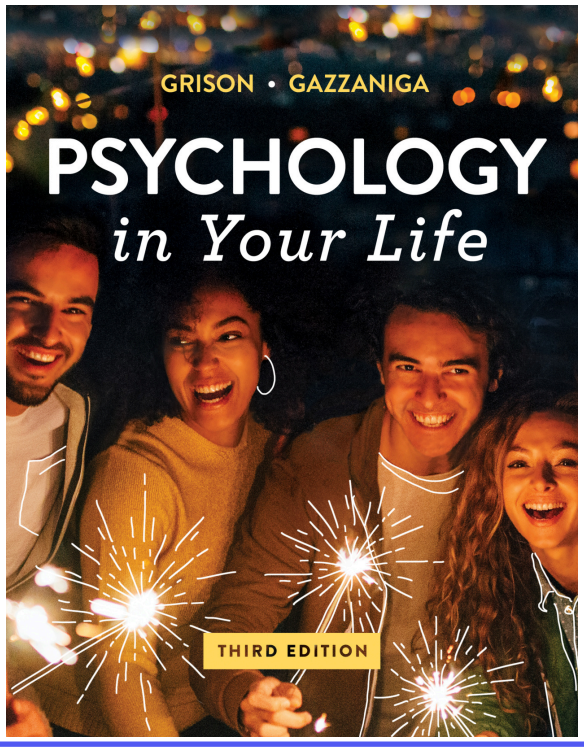



ebookbig.com

or scan the QR code to access the digital study portal.





For all teachers who inspire
others, especially
Brian Dill, Ken Kotovsky, and Steve Tipper

With gratitude,
Lilli, Emmy, Garth, Dante,
Rebecca, and Leonardo

# MEET THE AUTHORS



**SARAH GRISON** is an Associate Professor of Psychology at Parkland College and a Coordinator for the college's Center for Excellence in Teaching and Learning. She brings more than 20 years of psychology teaching experience to *Psychology in Your Life*. Sarah regularly teaches introductory psychology both face to face and online, as well as classes in human sexuality and in child and adolescent development. In addition, Sarah regularly teaches underprepared and first-semester college students in a First Year Experience course. Sarah uses psychological research as the basis of her own empirical classroom studies to examine students' attitudes, skills, performance, and learning. At the Center for Excellence in Teaching and Learning, Sarah provides courses and workshops for teachers in course design, pedagogy, and assessment, all aimed at helping students have excellent educational experiences. Sarah is a certified Teacher-Scholar who was recognized each year on the University of Illinois List of Excellent Teachers. She has won the University of Illinois Provost's Initiative for Teaching Advancement Award and the Association for Psychological Science Award for Teaching and Public Understanding of Psychological Science. She is a member of the American Psychological Association (Divisions 3 and 15); the Society for Teaching of Psychology; the Association for Psychological Science; the International Mind, Brain, and Education Society; the American Educational Research Association; the American Association of Community Colleges; the Illinois Community College Faculty Association. She is also an APA Community College Teacher Affiliate (PT@CC).



**MICHAEL S. GAZZANIGA** is Distinguished Professor and Director of the Sage Center for the Study of the Mind at the University of California, Santa Barbara. In his career, he has introduced thousands of students to psychology and cognitive neuroscience. He received a PhD from the California Institute of Technology, where he worked with Roger Sperry and had primary responsibility for initiating human split-brain research. He has carried out extensive studies on both subhuman primate and human behavior and cognition. He established centers for cognitive neuroscience at Cornell Medical School and Dartmouth College, and he established the Center for Neuroscience at UC Davis. He is the founding editor of the *Journal of Cognitive Neuroscience* and also a founder of the Cognitive Neuroscience Society. For 20 years he directed the Summer Institute in Cognitive Neuroscience, and he serves as editor in chief of the major reference text *The Cognitive Neurosciences*. He was a member of the President's Council on Bioethics from 2001 to 2009. He is a member of the American Academy of Arts and Sciences, the National Academy of Medicine, and the National Academy of Sciences. He has written many notable books, including, most recently, *Psychological Science,* 6e; *Cognitive Neuroscience,* 5e; and *The Consciousness Instinct: Unraveling the Mystery of How the Brain Makes the Mind.*

# CONTENTS IN BRIEF


Mission of *Psychology in Your Life* ..... viii

Introducing the Third Edition ..... xvi

Appreciation for Contributors and Reviewers ..... xvii

1. Introducing the World of Psychology ..... 2
2. The Role of Biology in Psychology ..... 44
3. Consciousness ..... 86
4. Development Across the Life Span ..... 128
5. Sensation and Perception ..... 170
6. Learning ..... 212
7. Memory ..... 250
8. Thinking and Intelligence ..... 292
9. Motivation and Emotion ..... 334
10. Sex, Gender, and Sexuality ..... 376
11. Health and Well-Being ..... 420
12. Social Psychology ..... 462
13. Self and Personality ..... 502
14. Psychological Disorders ..... 544
15. Psychological Treatments ..... 592

Appendix A: How Do Psychologists Analyze Research Data? ..... A-1

Appendix B: Answers to Red Q Questions and Self-Quiz Questions ..... B-1

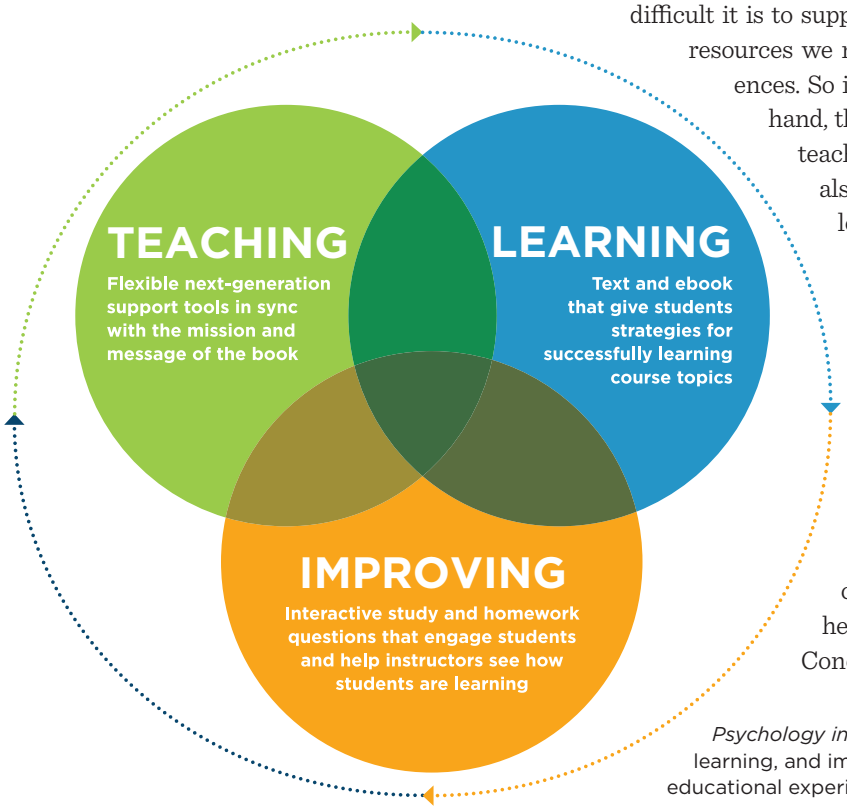



# MISSION OF *PSYCHOLOGY IN YOUR LIFE*

Welcome to *Psychology in Your Life*! Whether you are a teacher or a student, this book will be a perfect fit for you. That's because, unlike any other introductory psychology textbook authors, we believe that teaching, learning, and improving are all interconnected. Because of this, we have created every aspect of the textbook, all of the teaching support tools, and the embedded assessments to ensure that they work together seamlessly to create great educational experiences. We achieve this goal for *Psychology in Your Life* by focusing on three ideas: 1. Helping both teachers and students achieve educational excellence; 2. Using empirical research to develop the best teaching and learning tools, and 3. Ensuring an inclusive approach to the text, teaching tools, and assessment materials to honor all teachers and students.

## Helping Teachers and Students Achieve Educational Excellence

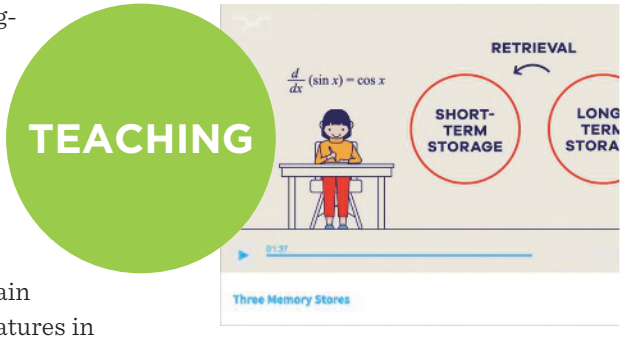
As teachers, we have learned that we cannot help our students learn when they do not actively participate in the learning process. And we have experienced how difficult it is to support our students when we did not receive the resources we needed to create excellent educational experiences. So if great teaching and great learning go hand in hand, then *Psychology in Your Life* must support both teachers and students in achieving their goals while also providing ways to show that students are learning.




*Psychology in Your Life* is based on the idea that teaching, learning, and improving are all interconnected to create great educational experiences.

**Supporting Teachers** To support teachers, we developed several resources related to the Learning Goals in the textbook. These resources can be found in the Interactive Instructor's Guide (IIG), an online repository of resources available for adopters. The teaching support tools in the IIG include Enhanced Lecture PowerPoints with Active Learning slides, which engage students in class; Student Demonstration Videos, which help students participate in class activities; and Concept Videos, which explain key concepts in

fun animations. For every chapter, Teaching Videos describe challenging concepts and provide ways to make them interesting. All of these teaching tools are designed for use in face-to-face, online, or hybrid learning environments. Together, they help teachers support their students in the best ways possible.




Animated Concept Videos are just one of the best-practice teaching support tools that are an integral part of *Psychology in Your Life.*

**Supporting Students** To support students, we designed the textbook and ebook to clearly state the Learning Goals. In addition, every chapter provides extra help through Learning Tips, which explain easy ways to think about and learn difficult concepts. Additional features in the textbook help students absorb the material by relating it to themselves: Has It Happened to You?, Try It Yourself, Using Psychology in Your Life, and Putting Psychology to Work. To check their mastery of the Learning Goals, students can answer the red Q questions throughout each chapter and the Self-Quizzes at the end of each chapter and check their answers in Appendix B.

**Assessing Improvement** To ensure that students are learning, we provide many assessments related to the Learning Goals. For example, an adaptive online homework tool, InQuizitive, provides students and teachers with feedback about whether students have mastered the textbook concepts. We have also created several ways for teachers to get assessment data while in class, such as in-class videos in a learning management system, comprehension questions that can be used with a student response system, one-minute writing prompts, and topics for class discussions. Some of our assessment methods are particularly useful in online environments. When students view the Student Demonstration Videos or Concept Videos in a learning management system, they can answer our prepared quiz questions about what they saw. Finally, our team of trained teacher-researchers have written quiz and test questions that focus on whether students can remember and understand the concepts and also apply them to new situations. These questions are packaged into quizzes that teachers can give to students before class or after the material has been covered for a chapter. All of the quiz and test questions can be used either in class or online in a teacher's learning management system. When embedded into a teacher's class, these assessment tools provide well-rounded information that reveals whether students have mastered the material.



"The best aspects of *Psychology in Your Life* are the examples and real-life situations. They allowed me to relate different processes in psychology to my own life, which helped me learn better overall. Additionally, it was easy to read and understand, so the material itself was easier to understand."

—Gabrielle (Gabby) Wessels, introductory psychology student

## Using Empirical Research to Develop the Best Teaching and Learning Tools

During our careers, we have seen vast growth in how much psychological research focuses on teaching and learning. As teachers and researchers, we realize how valuable this research is in creating tools that will work for teachers and students in face-to-face, online, and hybrid environments. Let's look at several specific ways that research has informed the creation of *Psychology in Your Life*. To learn more about these research-based strategies, and others, be sure to read the section below, Introducing the Third Edition, which describes our exciting, new *High-Impact Practices: A Teaching Guide for Psychology*.

**Goal-Directed Active Reading Improves Learning** When we talk to college students about how they read textbooks, they often say "I don't," "I highlight key

words," or "I reread." Yet research shows that these techniques do not support learning (Dunlosky et al., 2013). Unfortunately, students may never have been taught how to read effectively and may not have read textbooks in high school. So how can a textbook help students learn to read effectively? *Psychology in Your Life* uses several evidence-based approaches, including:



**7.2 LEARNING GOAL ACTIVITIES**

o maximize your learning, complete the ollowing learning goal activities.

. Understand all bold and italic terms by writing explanations of them in your own words.

. Understand how attention affects memory by summarizing in your own words how selective attention influences the creation of a memory.

**LEARNING**

Learning Goal Activities at the start of each study unit are an evidence-based learning tool that supports reading *Psychology in Your Life.*

- Emphasizing goal-directed active learning (American Psychological Association, 2013) in each study unit and providing teachers with all the Learning Goals Activities so they can add their own goals.
- Embedding Learning Goal Activities in the textbook so students can write down their answers as they read (Nguyen & McDaniels, 2014) and supporting teachers in low-stakes grading of these writing assignments, which can help learning (Drabick, Weisberg, Paul, & Bubier, 2007; Elbow & Sorcinelli, 2005).
- Spreading questions across levels of Bloom's taxonomy of cognitive skills (Anderson et al., 2001; Pusateri, Halonen, Hill, & McCarthy, 2009) to improve students' ability to remember, understand, and apply material and clearly indicating these levels to teachers so they can add their own goals at different cognitive levels.

**Active Engagement That Requires Deeper Processing Improves Learning** When we ask students what they do to learn material, they often reply, "I study." But when we press them on what they actually did, we often get blank stares. Luckily, learning is enhanced when students actively work with material and process information deeply (Bertsch & Pesta, 2014). In response, we designed *Psychology in Your Life* to entice students to work actively with materials through pedagogical features that encourage rich processing of information by:

"I have been teaching for over two decades, and this is the greatest textbook that I have ever used. I wish that I had used it sooner. But I guess you cannot appreciate filet mignon until you eat a lot of hamburger."

—Laura Scaletta, Niagara County Community College



- Asking students to relate new information to what they already know, that is, self-explanation (Dunlosky et al., 2013; Toukuhama-Espinosa, 2011), through textbook features—Has It Happened to You?, Try It Yourself, Using Psychology in Your Life, and Putting Psychology to Work—and providing teachers with Think-Pair-Share and Quick Write questions that relate to these features that can be used in class.
- Providing ways for students to explain particular concepts or phenomena, that is, elaborative interrogation (Dunlosky et al., 2013; Toukuhama-Espinosa, 2011), in the textbook's red Q questions, Evaluating Psychology in the Real World features, and The Methods of Psychology figures and providing teachers with materials to support in-class discussions about the research described in the text.
- Creating Student Demonstration Videos and Concept Videos that apply the material to new situations and that include embedded activities and questions for students, while also giving teachers engaging class materials in Enhanced Lecture PowerPoints with Active Learning slides to engage students in answering questions about these videos.

**Practice Makes Perfect** Most students want to get through studying as quickly as possible. In fact, most students think that studying is "one and done."

According to the research, however, students maximize their learning by distributing their studying over time (Cepeda et al., 2006). In addition, repeatedly practicing with material gives students multiple opportunities to learn it (Dunlosky et al., 2013). Indeed, reaccessing information during quizzes and tests enhances learning (Roediger & Karpicke, 2006; Pyc, Agarwal, & Roediger, 2014) and promotes transfer of the information to new involving the concepts (Carpenter, 2012). *Psychology in Your Life* uses all of these approaches to maximize learning by:



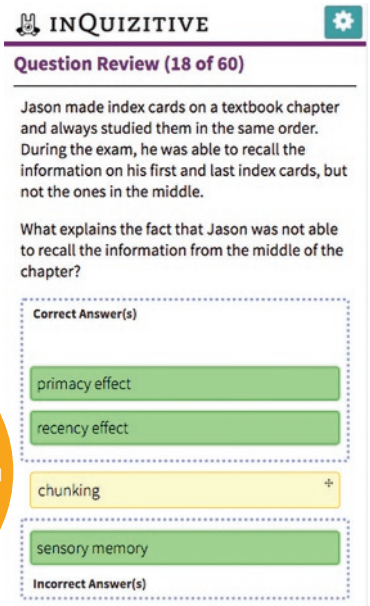
- Including low-stakes methods of repeatedly practicing with the material in the textbook, through red Q questions and Self-Quiz questions in each chapter, all of which have answers in Appendix B, so students can easily see what Learning Goals they have or have not mastered.
- Providing quiz questions, in the coursepack, related to features in the textbook and to the Student Demonstration Videos, which can be used either in class in a learning management system to reveal whether the concepts have been learned.
- Creating pre-lecture quizzes related to the Learning Goals, with learning benefits such as improved scores on later exams (Narloch, Garbin, & Turnage, 2006).
- Providing post-lecture quizzes and Test Bank items with multiple-choice and essay questions related to the Learning Goals, which can be used either in class or in a learning management system to provide repeated practice and show learning.

**Interactive, Adaptive Online Homework Tools Are Beneficial to Students** In these days of multimedia, it's no wonder that students get distracted easily and have a hard time paying attention when they study. Over and over again we have heard the same complaint: "Studying is boring!" Yet to learn, students must study actively over time. Luckily, adaptive online homework tools can help address these issues. In fact, students who get higher scores on online homework tools tend to also earn higher scores on exams (Regan, 2015). Because of these findings, we created InQuizitive to be an adaptive online homework tool that grabs attention and teaches effectively by:

- Designing it based on fun gaming techniques, because student interest is highly correlated with information retention (Naceur & Schiefele, 2005).
- Creating different types of interactive items—such as video questions, drag and drop, fill in the blank, and multiple choice—that require students to actively work with the concepts tied to specific Learning Goals (Bertsch & Pesta, 2014; Dunlosky et al., 2013).
- Ensuring InQuizitive supports learning through feedback provided to students (Pennebaker, Gosling, & Ferrell, 2013), where each student's mastery-based grade for a chapter can be imported automatically into a teacher's learning management system.
- Developing the most effective feedback for students by explaining how the student might be thinking incorrectly about the information and giving the textbook page numbers so students can review the concepts, all of which further enhances learning (Hattie & Yates, 2014).

"I would describe *Psychology in Your Life* as a first choice for an accessible and enjoyable introductory psychology text. The many inset features that essentially provide brief articles and applications deliver more tempting morsels for the reader than endless text. [This textbook] has made me consider more directed reading assignments for students than simply assigning chapters and the corresponding InQuizitive sections."

—James Sturges, California State Polytechnic University, Pomona




IMPROVING

InQuizitive is one of the evidence-based tools for *Psychology in Your Life* that lets teachers and students see whether students are improving in learning the material.

- Providing easy-to-understand graphs of individual student performance over time, by specific concepts and by question type, which helps teachers check students' mastery of the material either before class, where difficult concepts can be discussed, or before quizzes and tests.

## References


Anderson, L. W., Krathwohl, D. R., Airasian, R. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., . . . Wittrock, M. C. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York, NY: Addison Wesley Longman, Inc.

American Psychological Association. (2013). APA guidelines for the undergraduate psychology major: Version 2.0. Retrieved from http://www.apa.org/ed/precollege/undergrad/index.aspx

Bertsch, S., & Pesta, B. J. (2014). Generating active learning. In V. A. Benassi, C. E. Overson, & C. M. Hakala (Eds.), *Applying the science of learning in education: Infusing psychological science into the curriculum* (pp. 71–77). Retrieved from http://teachpsych.org/ebooks/asle2014/index.php

Carpenter, S. K. (2012). Testing enhances the transfer of learning. *Current Directions in Psychological Science, 21,* 279–283.

Cepeda, N. J., Pashler, H., Vul, E., Wixted, J. T., & Rohrer, D. (2006). Distributed practice in verbal recall tasks: A review and quantitative synthesis. *Psychological Bulletin, 132,* 354–380.

Drabick, D. A., Weisberg, R., Paul, L., & Bubier, J. L. (2007). Keeping it short and sweet: Brief, ungraded writing assignments facilitate learning. *Teaching of psychology (Columbia, Mo.), 34*(3), 172–176.

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest, 14,* 4–58.

Elbow, P., & Sorcinelli, M. D. (2005). How to enhance learning by using high-stakes and low-stakes writing. In McKeachie, W. J., & Swinicki, M. (eds.), *McKeachie's Teaching Tips: Strategies, Research, and Theory for College and University Teachers* (12th ed., pp. 192–212). Retrieved from https://scholarworks.umass.edu/cgi/viewcontent.cgi?params=/context/peter_elbow/article/1004/type/native/&path_info=

Hattie, J. A. C., & Yates, G. C. R. (2014). Using feedback to promote learning. In V. A. Benassi, C. E. Overson, & C. M. Hakala (Eds.). *Applying the science of learning in education: Infusing psychological science into the curriculum* (pp. 45–58). Retrieved from http://teachpsych.org/ebooks/asle2014/index.php

Naceur, A., & Schiefele, U. (2005). Motivation and learning—the role of interest in construction and representation of text and long-term retention: Inter- and intraindividual analyses. *European Journal of Psychology of Education, 20*(2), 155–170.

Narloch R., Garbin, C. P., & Turnage K. D. (2006). Benefits of prelecture quizzes. *Teaching of Psychology, 33,* 109–112.

Nguyen, K., & McDaniels, M. A. (2014). Potent techniques to improve learning from the text. In V. A. Benassi, C. E. Overson, & C. M. Hakala (Eds.), *Applying the science of learning in education: Infusing psychological science into the curriculum* (pp. 104–117). Retrieved from http://teachpsych.org/ebooks/asle2014/index.php

Pennebaker, J. W., Gosling, S. D., & Ferrell, J. D. (2013). Daily online testing in large classes: Boosting college performance while reducing achievement gaps. *PLOS ONE 8*(11): e79774. doi:10.1371/journal.pone.0079774

Pusateri, T., Halonen, J., Hill, B., & McCarthy, M. (Eds.). (2009). The assessment cyberguide for learning goals and outcomes. Washington, D.C.: American Psychological Association.

Pyc, M., Agarwal, P. J., & Roediger, H. L. (2014). Test-enhanced learning. In V. A. Benassi, C. E. Overson, & C. M. Hakala (Eds.), *Applying the science of learning in education: Infusing psychological science into the curriculum* (pp. 78–90). Retrieved from http://teachpsych.org/ebooks/asle2014/index.php

Regan, R. A. R. (2015). Three investigations of the utility of textbook technology supplements. *Psychology Learning & Teaching, 14,* 26–35.

Roediger, H. L., III, & Karpicke, J. D. (2006). The power of testing memory: Basic research and implications for educational practice. *Psychological Science, 1,* 181–210.

Tokuhama-Espinosa, T. (2010). *Mind, brain, and education science: A comprehensive guide to the new brain-based teaching.* New York: Norton.

## Ensuring an Inclusive Approach to the Text, Teaching Tools, and Assessment Materials to Honor All Teachers and Students



In our combined experience of nearly 80 years in higher education we have worked with teachers and students from all walks of life. If we have learned one thing, it is this: Teachers and students today are vibrant in their diverse identities, experiences, goals, and challenges. Because of this, a key aspect of our vision has been to develop *Psychology in Your Life* to reflect this diversity and be inclusive in all aspects of the textbook, teaching tools, and assessment materials. How do we achieve this? As we work with teachers and students, we ask them about themselves: their goals, needs, successes, and challenges, and what is important to them in terms of their identities and experiences. Even more importantly, we listen to their answers. Their answers—your answers—provide the foundation for how we support you in the best ways possible. Here is what we have learned about the teachers and students who use *Psychology in Your Life*.

> "I liked the InQuizitive homework because if forced me to read about the material. I found that I usually could not do well on the homework until I read the textbook. Overall, though, I loved the way the InQuizitive homework was structured. It felt like a game rather than homework, so I was never reluctant to do it."
>
> —Salman Khan, introductory psychology student

### Teachers Face Significant Challenges in Supporting Their Students

Teaching is a difficult job, and in today's educational environment, teachers are increasingly being asked to do more. Teachers must teach more courses, even if they are outside their areas of expertise. Teachers now have greater numbers of students than ever before, including students with widely varying needs, and they must support more students who are underprepared for college. They are being asked to use innovative approaches they may be unfamiliar with and teach courses using formats that are new to them (such as online and hybrid). Many teachers are even being tasked with obtaining assessment data from their courses to give to institutions, even though they often have no training in this area. Yet even as the pressures of teaching increase, institutions provide less support, fewer professional development opportunities, fewer pedagogical resources, and less technical training. Part of our vision is to support teachers with the tools they need, in several ways:

- Because teachers have different learning goals for students, the Learning Goals in our textbook and the support materials, including quiz and Test Bank questions, focus on remembering, understanding, or applying the concepts. This approach lets teachers choose what goals to focus on and choose the appropriate materials to use with their students.
- Because teachers may want students to develop skills, we support reading and writing skills (through the Learning Goal Activities), study techniques (the Using Psychology in Your Life features), critical thinking (the Evaluating Psychology in the Real World features), scientific thinking (the Methods of Psychology figures), and career development (the Putting Psychology to Work features).
- For teachers just starting in the field or for those looking for refreshers, the IIG includes Teaching Videos for each chapter that explain difficult concepts and how to teach them and Teacher Versions of the Student Demonstration Videos that explain how to conduct specific in-class activities.