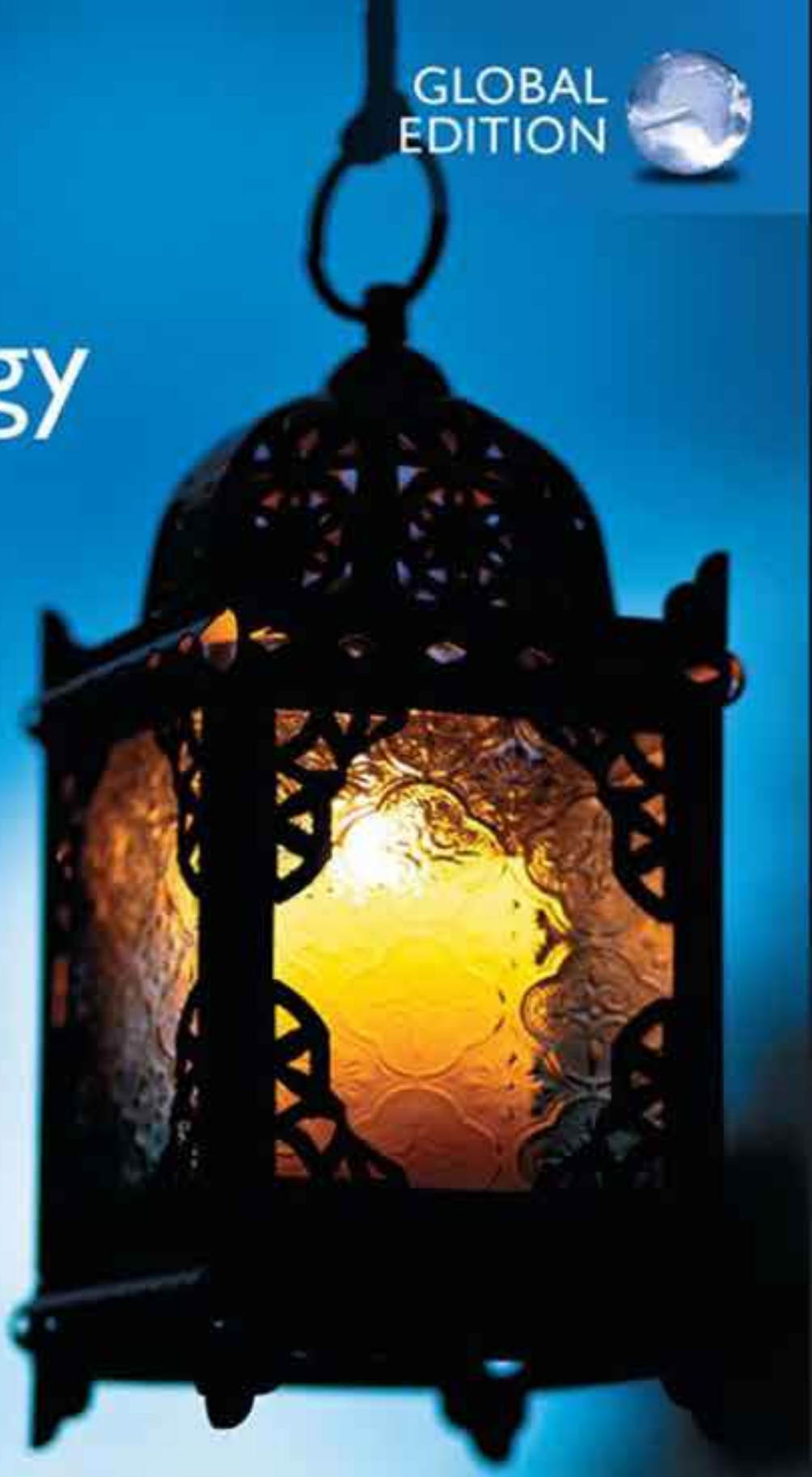
GLOBAL EDITION

Psychology

FIFTH EDITION

Saundra K. Ciccarelli
J. Noland White



Pearson

Psychology

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Saundra K. Ciccarelli
Gulf Coast State College

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Georgia College & State University

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Brief Contents

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Contents

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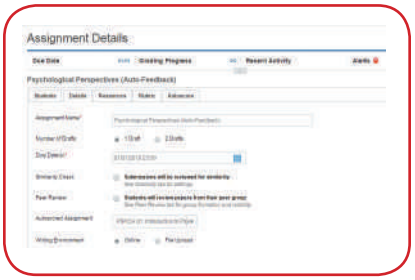
Teaching and Learning Package

INTEGRATION AND FEEDBACK

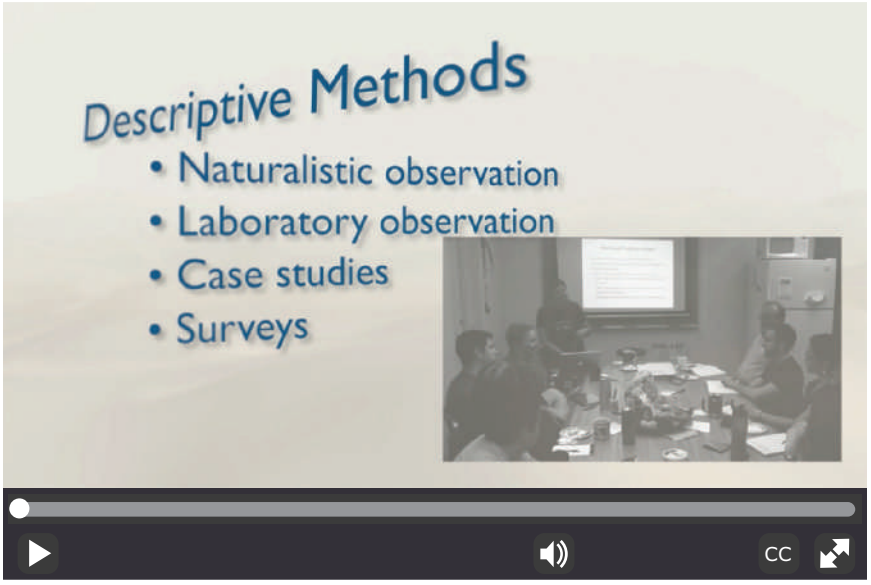
It is increasingly true today that as valuable as a good textbook is, it is still only one element of a comprehensive learning package. The teaching and learning package that accompanies *Psychology*, 5e, is the most comprehensive and integrated on the market. We have made every effort to provide high-quality instructor resources that will save you preparation time and will enhance the time you spend in the classroom.



MYPSYCHLAB MyPsychLab is an online homework, tutorial, and assessment program that truly engages students in learning. It helps students better prepare for class, quizzes, and exams—resulting in better performance in the course—and provides educators with a dynamic set of tools for gauging individual and class progress. MyPsychLab comes from Pearson, your partner in providing the best digital learning experience.

LEARNING CATALYTICS Learning Catalytics is a "bring your own device" student engagement, assessment, and classroom intelligence system. It allows instructors to engage students in class with real-time diagnostics. Students can use any modern, web-enabled device (smartphone, tablet, or laptop) to access it.

WRITING SPACE Better writers make great learners—who perform better in their courses. To help you develop and assess concept mastery and critical thinking through writing, we created the Writing Space in MyPsychLab. It's a single place to create, track, and grade writing assignments, provide writing resources, and exchange meaningful, personalized feedback with students, quickly and easily, including autoscoring for practice writing prompts. Plus, Writing Space has integrated access to Turnitin, the global leader in plagiarism prevention.



Presentation and Teaching Resources

The Instructor's Resource Center (**www.pearsonglobaleditions.com/ciccarelli**) provides information on the following supplements and downloadable files:

Interactive PowerPoint Slides bring the Ciccarelli/White design into the classroom, drawing students into the lecture and providing appealing interactive activities, visuals, and videos. The slides are built around the text's learning objectives and offer many direct links to interactive exercises, simulations, and activities.

Standard Lecture PowerPoint Slides These ADA PowerPoint slides provide an active format for presenting concepts from each chapter and feature relevant figures and tables from the text.

Art PowerPoint Slides These slides contain only the photos, figures, and line art from the textbook.

Instructor's Resource Manual, prepared by Alan Swinkels, St. Edward's University, offers detailed chapter lecture outlines, chapter summaries, learning objectives, activities, exercises, assignments, handouts, and demonstrations for in-class use, as well as useful guidelines for integrating the many Pearson media resources into your classroom and syllabus.

Test Item File prepared by Jason Spiegelman, Community College of Baltimore County, contains more than 3,200 questions categorized by learning objective and question type (factual, conceptual, or applied). Rationales for each correct answer and the key distracter in the multiple-choice questions help instructors evaluate questions and provide more feedback to students.

APA Assessment Bank

Available within MyPsychLab, a unique bank of assessment items allows instructors to assess student progress against the American Psychological Association's Learning Goals and Outcomes.

Accessing All Resources

For a list of all student resources available with Ciccarelli/White, *Psychology*, 5e, go to www.pearsonglobaleditions.com/ciccarelli.

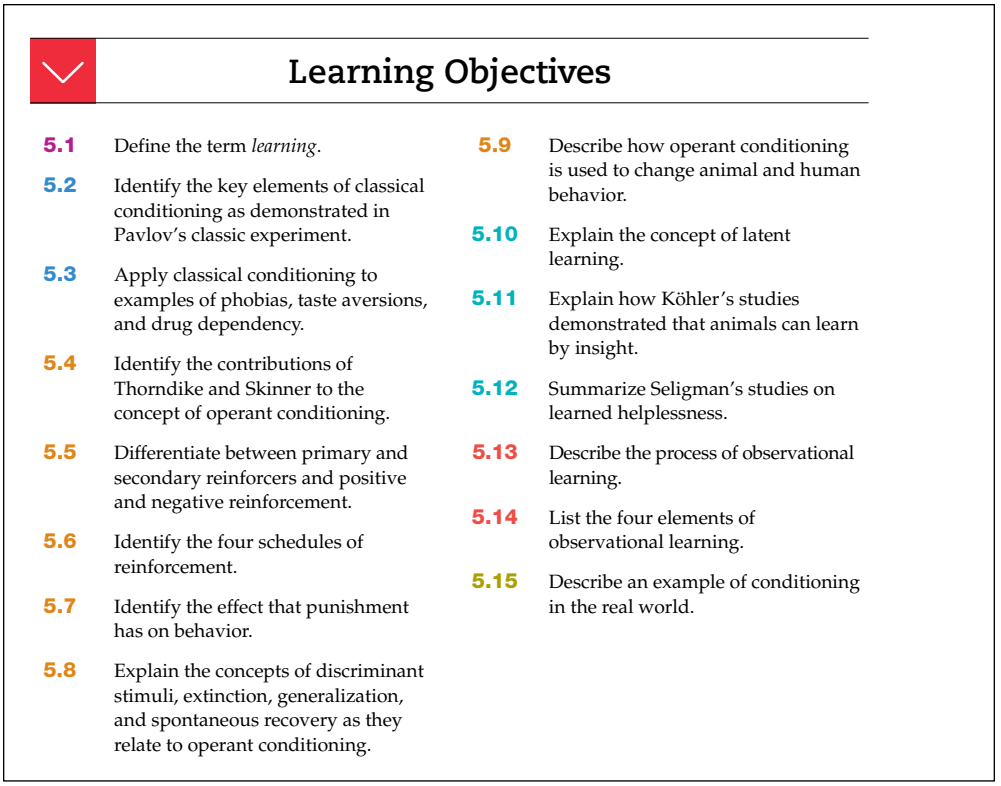
For access to all instructor resources for Ciccarelli/White, *Psychology*, 5e, simply go to www.pearsonglobaleditions.com/ciccarelli.

For technical support for any of your Pearson products, you and your students can contact https://support.pearson.com/getsupport.

Learning Outcomes and Assessment

LEARNING OBJECTIVES

Based on APA recommendations, each chapter is structured around detailed learning objectives. All of the instructor and student resources are also organized around these objectives, making the text and resources a fully integrated system of study. The flexibility of these resources allows instructors to choose which learning objectives are important in their courses as well as which content they want their students to focus on.



GOALS AND STANDARDS

In recent years, many psychology departments have been focusing on core competencies and how methods of assessment can better enhance students' learning. In response, the American Psychological Association (APA) established recommended goals for the undergraduate psychology major beginning in 2008 with a set of 10 goals, and revised again in 2013 with a new set of 5 goals. Specific learning outcomes were established for each of the goals, and suggestions were made on how best to tie assessment practices to these goals. In writing this text, we have used the APA goals and assessment recommendations as guidelines for structuring content and integrating the teaching and homework materials. For details on the APA learning goals and assessment guidelines, please see **www.apa.org/**.

APA LEARNING OBJECTIVES	CICCARELLI/WHITE TEXT LEARNING OBJECTIVES

1 Knowledge Base in Psychology

Students should demonstrate fundamental knowledge and comprehension of the major concepts, theoretical perspectives, historical trends, and empirical findings to discuss how psychological principles apply to behavioral phenomena. Foundation students should demonstrate breadth in their knowledge and applications of psychological ideas to simple problems; baccalaureate students should show depth in their knowledge and application of psychological concepts and frameworks to problems of greater complexity.

1.1 Describe key concepts, principles, and overarching themes in psychology.	**Intro: PIA.1** **Ch 1:** 1.1–1.5, 1.10 and Applying Psychology to Everyday Life: Thinking Critically About Critical Thinking **Ch 2:** 2.1–2.13 and Applying Psychology to Everyday Life: Paying Attention to Attention-Deficit/Hyperactivity Disorder **Ch 3:** 3.1–3.11, 3.13–3.14 and Applying Psychology to Everyday Life: Beyond "Smoke and Mirrors"—The Psychological Science and Neuroscience of Magic **Ch 4:** 4.1–4.10 and Applying Psychology to Everyday Life: Thinking Critically About Ghosts, Aliens, and Other Things that Go Bump in the Night **Ch 5:** 5.1–5.8, 5.9–5.14 and Applying Psychology to Everyday Life: Can You Really Toilet Train Your Cat? **Ch 6:** 6.1–6.13 and Applying Psychology to Everyday Life: Health and Memory **Ch 7:** 7.1–7.4, 7.6–7.10 and Applying Psychology to Everyday Life: Mental and Physical Exercises Combine for Better Cognitive Health **Ch 8:** 8.2–8.5, 8.7–8.11 and Applying Psychology to Everyday Life: Cross-Cultural Views on Death **Ch 9:** 9.1–9.10 and Applying Psychology to Everyday Life: When Motivation is Not Enough **Ch 10:** 10.1–10.9 and Applying Psychology to Everyday Life: The AIDS Epidemic in Russia **Ch 11:** 11.1–11.10 and Applying Psychology to Everyday Life: Coping with Stress Through Mindfulness Meditation **Ch 12:** 12.1–12.15 and Applying Psychology to Everyday Life: Peeking Inside the Social Brain **Ch 13:** 13.1–13.15 and Applying Psychology to Everyday Life: Biological Bases of Personality **Ch 14:** 14.1–14.15 and Applying Psychology to Everyday Life: Taking the Worry Out of Exams **Ch 15:** 15.1–15.11 and Applying Psychology to Everyday Life: Virtual Reality Therapies Major concepts are reinforced with learning tools: Writing Space, Experiment Simulations, MyPsychLab Video Series, Operation ARA, Visual Brain, and instructor's teaching and assessment package.
1.2 Develop a working knowledge of psychology's content domains.	
1.3 Describe applications of psychology.	

2 Scientific Inquiry and Critical Thinking

The skills in this domain involve the development of scientific reasoning and problem solving, including effective research methods. Foundation students should learn basic skills and concepts in interpreting behavior, studying research, and applying research design principles to drawing conclusions about behavior; baccalaureate students should focus on theory use as well as designing and executing research plans.

2.1 Use scientific reasoning to interpret psychological phenomena.	**Ch 1:** 1.6–1.12; APA Goal 2: Scientific Inquiry and Critical Thinking: A Sample Experiment; Applying Psychology to Everyday Life: Thinking Critically About Critical Thinking **Ch 2:** 2.4, 2.8, 2.14; APA Goal 2: Scientific Reasoning and Critical Thinking: Phineas Gage and Neuroplasticity; Classic Studies in Psychology: Through the Looking Glass—Spatial Neglect **Ch 3:** Applying Psychology to Everyday Life: Beyond "Smoke and Mirrors"—The Psychological Science and Neuroscience of Magic; APA Goal 2: Scientific Inquiry and Critical Thinking: Perceptual Influences on Metacognition **Ch 4:** 4.10; Applying Psychology to Everyday Life: Thinking Critically About Ghosts, Aliens, and Other Things That Go Bump in the Night; APA Goal 2: Weight Gain and Sleep **Ch 5:** 5.2–5.14 and Classic Studies in Psychology: Biological Constraints of Operant Conditioning; APA Goal 2: Scientific Inquiry and Critical Thinking: Spare the Rod, Spoil the Child? **Ch 6:** Classic Studies in Psychology: Sperling's Iconic Memory Test; Classic Studies in Psychology: Elizabeth Loftus and Eyewitnesses; APA Goal 2: Scientific Inquiry and Critical Thinking: Effects of Supplements on Memory; Applying Psychology to Everyday Life: Health and Memory **Ch 7:** 7.2–7.5; APA Goal 2: Scientific Inquiry and Critical Thinking: A Cognitive Advantage for Bilingual Individuals? Classic Studies in Psychology: Terman's Termites; Applying Psychology to Everyday Life: Mental and Physical Exercises for Better Cognitive Health **Ch 8:** 8.1, 8.7, 8.10; Classic Studies in Psychology: The Visual Cliff; Classic Studies in Psychology: Harlow and Contact Comfort; APA Goal 2: Scientific Reasoning and Critical Thinking: The Facts About Immunizations **Ch 9:** Classic Studies in Psychology: The Angry/Happy Man; APA Goal 2: Scientific Inquiry and Critical Thinking: Cultural Differences in the Use of Praise as a Motivator **Ch 10:** 10.7; Classic Studies in Psychology: Masters and Johnson's Observational Study of the Human Sexual Response; APA Goal 2: Scientific Reasoning and Critical Thinking **Ch 12:** 12.16; Classic Studies in Psychology: Brown Eyes, Blue Eyes; APA Goal 2: Scientific Inquiry and Critical Thinking: Cults and the Failure of Critical Thinking **Ch 13:** 13.9 and Classic Studies in Psychology: Geert Hofstede's Four Dimensions of Cultural Personality; APA Goal 2: Scientific Inquiry and Critical Thinking: Personality, Family, and Culture **Ch 14:** APA Goal 2: Scientific Inquiry and Critical Thinking: Learning More: Psychological Disorders **Ch 15:** APA Goal 2: Scientific Inquiry and Critical Thinking: Does It Work? Psychological Treatment **Appendix A: Statistics in Psychology** Scientific methods are reinforced with learning tools: Writing Space, Experiment Simulations, MyPsychLab Video Series, Operation
2.2 Demonstrate psychology information literacy.	
2.3 Engage in innovative and integrative thinking and problem solving.	
2.4 Interpret, design, and conduct basic psychological research.	
2.5 Incorporate sociocultural factors in scientific inquiry.	

APA UNDERGRADUATE LEARNING GOALS AND OUTCOMES	CICCARELLI/WHITE, 5E CONTENT

3 Ethical and Social Responsibility

The skills in this domain involve the development of ethically and socially responsible behaviors for professional and personal settings. Foundation students should become familiar with the formal regulations that govern professional ethics in psychology and begin to embrace the values that will contribute to positive outcomes in work settings and in society. Baccalaureate students should have more direct opportunities to demonstrate adherence to professional values that will help them optimize their contributions.

3.1 Apply ethical standards to psychological science and practice.	**Ch 1:** 1.10; Shared Writing: The Science of Psychology
3.2 Build and enhance interpersonal relationships.	**Ch 2:** Shared Writing: The Biological Perspective
3.3 Adopt values that build community at local, national, and global levels.	**Ch 3:** Shared Writing: Sensation and Perception
	Ch 4: Shared Writing: Consciousness
	Ch 5: 5.3; Shared Writing: Learning
	Ch 6: Shared Writing: Memory
	Ch 7: 7.9, 7.10; Classic Studies in Psychology: Terman's "Termites"; Shared Writing: Cognition: Thinking, Intelligence, and Language
	Ch 8: 8.4, 8.11; Shared Writing: Development Across the Life Span
	Ch 9: 9.3, 9.5, 9.10; Classic Studies in Psychology: The Angry/Happy Man; Shared Writing: Motivation and Emotion
	Ch 10: 10.5; Applying Psychology to Everyday Life: The AIDS Epidemic in Russia; Shared Writing: Sexuality and Gender
	Ch 11: 11.6, 11.9; Shared Writing: Stress and Health
	Ch 12: 12.4; Scientific Inquiry and Critical Thinking: Cults and the Failure of Critical Thinking; Classic Studies in Psychology: Brown Eyes, Blue Eyes; Applying Psychology in Everyday Life: Peeking Inside the Social Brain
	Ch 13: 13.12; Shared Writing: Theories of Personality
	Ch 14: Shared Writing: Psychological Disorders
	Ch 15: Shared Writing: Psychological Therapies
	Ethics and values are reinforced with learning tools: Writing Space, Experiment Simulations, MyPsychLab Video Series, Operation ARA, Visual Brain, and instructor's teaching and assessment package.

4 Communication

Students should demonstrate competence in written, oral, and interpersonal communication skills. Foundation students should be able to write a cogent scientific argument, present information using a scientific approach, engage in discussion of psychological concepts, explain the ideas of others, and express their own ideas with clarity. Baccalaureate students should produce a research study or other psychological project, explain scientific results, and present information to a professional audience. They should also develop flexible interpersonal approaches that optimize information exchange and relationship development.

4.1 Demonstrate effective writing in multiple formats.	**Intro:** PIA.6
4.2 Exhibit effective presentation skills in multiple formats.	**Ch 7:** 7.11
4.3 Interact effectively with others.	**Ch 8:** 8.8 and Applying Psychology to Everyday Life: Cross-Cultural Views on Death
	Ch 9: 9.3
	Ch 10: 10.5
	Ch 12: 12.2–12.3, 12.8–12.9, 12.12 and Psychology in the News: Facing Facebook—The Social Nature of Online Networking; Applying Psychology to Everyday Life: Peeking Inside the Social Brain
	Communication skills are reinforced with learning tools: Writing Space, Experiment Simulations, MyPsychLab Video Series, Operation ARA, Visual Brain, and instructor's teaching and assessment package.

5 Professional Development

The skills in this domain refer to abilities that sharpen student readiness for post-baccalaureate employment, graduate school, or professional school. The emphasis in the domain involves application of psychology-specific content and skills, effective self-reflection, project management skills, teamwork skills, and career preparation. These skills can be developed and refined both in traditional academic settings and extracurricular involvement. In addition, career professionals can be enlisted to support occupational planning and pursuit.

5.1 Apply psychological content and skills to professional work.	**Intro: PIA.1-PIA.7**
5.2 Exhibit self-efficacy and self-regulation.	**Ch 1:** 1.4, 1.12
5.3 Refine project management skills.	**Ch 7:** Applying Psychology to Everyday Life: Mental and Physical Exercises for Better Cognitive Health
5.4 Enhance teamwork capacity.	**Ch 9:** 9.1, 9.3–9.4, 9.10 and Applying Psychology to Everyday Life: When Motivation Is Not Enough
5.5 Develop meaningful professional direction for life after graduation.	**Ch 10:** 10.5
	Ch 11: 11.7–11.10
	Ch 12: 12.1–12.3, 12.8–12.9
	Appendix B: Applied Psychology and Psychology Careers
	Professional development opportunities are reinforced with learning tools: Writing Space, Experiment Simulations, MyPsychLab Video Series, Operation ARA, Visual Brain, and instructor's teaching and assessment package.

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I have to thank my husband, Joe Ciccarelli, for his love and support while I spent many long hours writing and editing this textbook. My children, Al and Liz, also put up with my odd working hours and frequent trips and deserve my thanks as well.

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J. NOLAND WHITE is a professor of psychology at Georgia College & State University (Georgia College), Georgia's Public Liberal Arts University, located in Milledgeville. He received his A.A. in psychology from Macon State College and both his B.S. and M.S. in psychology from Georgia College. After receiving his Ph.D. in counseling psychology from the University of Tennessee, he joined the faculty of Georgia College in 2001. He teaches Introductory Psychology, Psychology of Adjustment, Behavioral Neuroscience, Advanced Behavioral Neuroscience, Counseling and Clinical Psychology, Senior Seminar, and a section of Advanced Research Methods focusing on psychophysiology. He has an active lab and, with his students, is investigating the psychophysiological characteristics and neuropsychological performance of adults with and without ADHD. Outside of the lab, Dr. White is engaged in collaborative research examining the effectiveness of incorporating various technologies in and out of the college classroom to facilitate student learning. He also serves as a mentor for other faculty wanting to expand their use of technology with their classes. In April 2008, he was a recipient of the Georgia College Excellence in Teaching Award. Dr. White is also a licensed psychologist and has worked with adolescents and adults in a variety of clinical and community settings.

Psychology

Fifth edition

Global edition

Psychology in Action

Secrets for Surviving College and Improving Your Grades

THINKING CRITICALLY

Based on what you know now, what advice would you share with a student just starting out in college?

Watch the Video on MyPsychLab

Why Study How to Study?

Many students entering college have developed a system of taking notes, reading the textbook, and reviewing for exams that may have worked pretty well in the past; but what worked in grade school and high school may not work in college, where the expectations from teachers are higher and the workload is far greater. Students should develop skills in the following areas in order to do their absolute best in any college course: study methods, time management, effective reading of course materials, active listening and note taking, studying for exams, memory strategies, and writing papers. One final aspect of being a successful student involves being an ethical student—exactly how can you use the materials you find for your research paper, for example, without committing the sin of plagiarism (claiming the work of someone else as your own)?

This introduction presents various techniques and information aimed at maximizing knowledge and skills in each of these eight areas. In addition, brief videos are available on each of these topics. These topics address aspects of the American Psychological Association's (APA) undergraduate learning goals. APA Goal 2 (Scientific Inquiry and Critical Thinking) is addressed in Chapter One and is the basis of a feature in every chapter.

Learning Objectives

PIA.1 Identify four methods of studying.

PIA.2 Describe some strategies for time management.

PIA.3 Describe how to read a textbook so that you get the most out of your reading efforts.

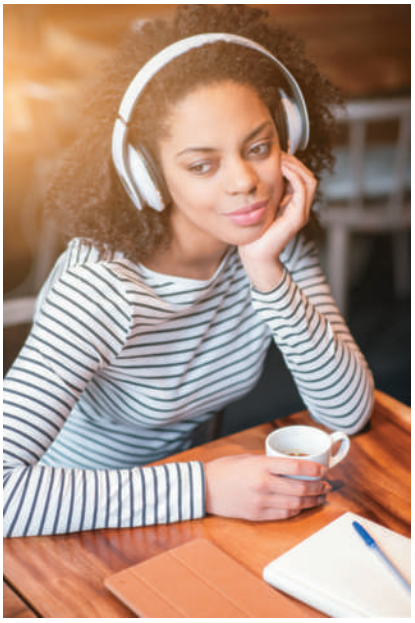
PIA.4 Identify the best methods for taking notes and listening in class.

PIA.5 Describe how to approach studying for exams.

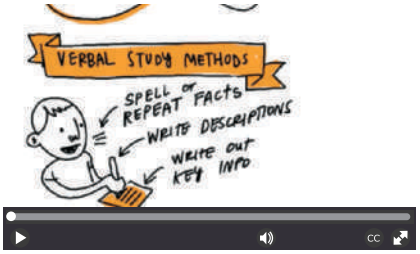
PIA.6 Explain how using mnemonics can help you improve your memory for facts and concepts.

PIA.7 Describe the key steps in writing papers for college.

PIA.8 Identify some of the key ethical considerations that you'll face as a student.



Some students find it helpful to hear the content in addition to reading it. This is especially true when learning a new language. This woman is listening to an audio recording from her textbook as she follows along and looks at the figures and photos.



Watch the Video *Study Methods* on MyPsychLab

Study Skills

PIA.1 Identify four methods of studying.

I want to make better grades, but sometimes it seems that no matter how hard I study, the test questions turn out to be hard and confusing and I end up not doing very well. Is there some trick to getting good grades?

Many students would probably say that their grades are not what they want them to be. They may make the effort, but they still don't seem to be able to achieve the higher grades that they wish they could earn. A big part of the problem is that despite many different educational experiences, students are rarely taught how to study.

We learn many different kinds of things during our lives, and using only one method of learning probably isn't going to work for everyone. Students may have preferences for a particular study method or may find it useful to use a combination of different methods. *Verbal study methods* involve the use of words, expressed either through writing or speaking. For instance, after you read about a topic, you might put it into your own words, or you might write out longer, more detailed versions of the notes you took in class. *Visual learning methods* involve the use of pictures or images. Students using these methods may look at or create charts, diagrams, and figures to master the content. There are also those who prefer to learn by hearing the information (*auditory learning methods*). Listening to a recording of a lecture is a good example. Finally, there are people who use the motion of their own bodies to help them remember key information (*action learning methods*). For instance, you might construct a three-dimensional model to gain a better understanding of a topic.

THINKING CRITICALLY

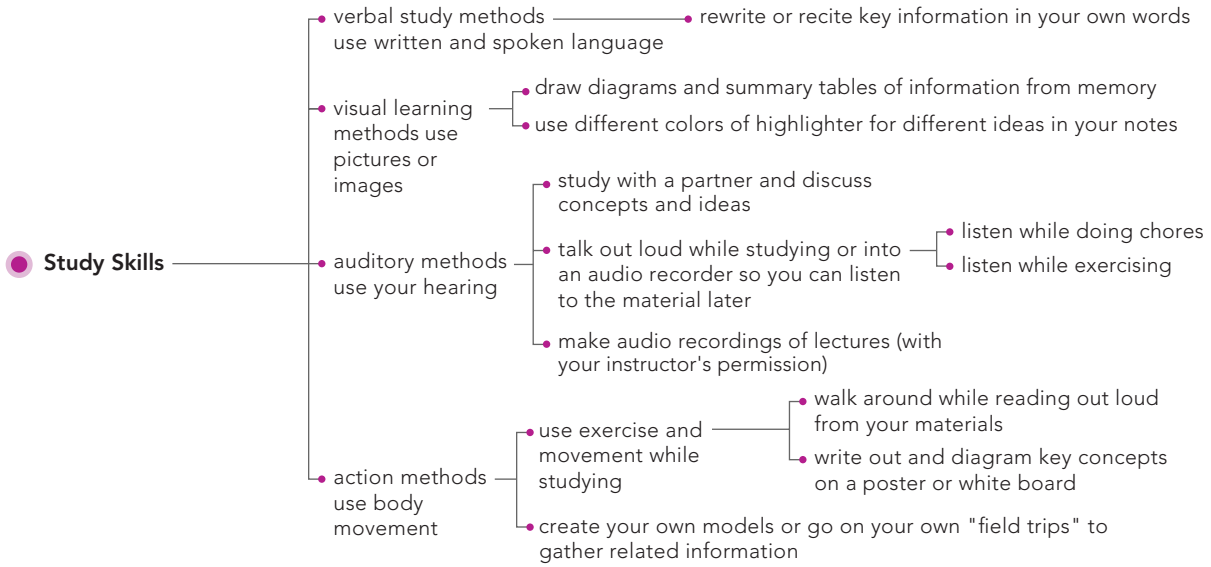
Describe some other ways in which the various study methods can be put to use.

Table PIA.1 lists just some of the ways in which you can study. All of the methods listed in this table are good for students who wish to improve both their understanding of a subject and their grades on tests.

Table PIA.1 Multiple Study Methods

VERBAL METHODS (involve speaking or writing)	VISUAL METHODS (involve pictures, images)	AUDITORY METHODS (involve listening)	ACTION METHODS (involve physical activity)
Use flash cards to identify main points or key terms. Write out or recite key information in whole sentences or phrases in your own words. When looking at diagrams, write out a description. Use "sticky" notes to remind yourself of key terms and information, and put them in the notebook text or e-text or on a mirror that you use frequently. Practice spelling words or repeating facts to be remembered. Rewrite things from memory.	Make flash cards with pictures or diagrams to aid recall of key concepts. Make charts and diagrams and sum up information in tables. Use different colors of highlighter for different sections of information in text, e-text, or notes. Visualize charts, diagrams, and figures. Trace letters and words to remember key facts. Redraw things from memory.	Join or form a study group or find a study partner so that you can discuss concepts and ideas. While studying, speak out loud or into a digital recorder that you can play back later. Make speeches. Record the lectures (with permission). Take notes on the lecture sparingly, using the recording to fill in parts that you might have missed. Read notes or text material into a digital recorder or get study materials recorded and play back while exercising or doing chores. When learning something new, state or explain the information in your own words out loud or to a study partner. Use musical rhythms as memory aids, or put information to a rhyme or a tune.	Sit near the front of the classroom. If online, give yourself room to walk around while studying. Take notes by making pictures or charts to help you remember key terms and ideas. Read out loud while walking around. Study with a friend. While exercising, listen to recordings of important information. Write out key concepts on a large board or poster. Make your own flash cards, using different colors and diagrams, and lay them out in order on a large surface. Make a three-dimensional model. Spend extra time in the lab. Go to off-campus areas such as a museum or historical site to gain information.

Concept Map L.O. PIA.1



Practice Quiz How much do you remember?

Pick the best answer.

1. In an episode of a popular television program, a detective reconstructs a crime scene by using various foods from his dinner table. He uses ears of corn to represent the cars, mashed potatoes to form the sides of the road, and so on. What method of learning best fits the method this character seems to be using to think about the events of the crime?

a. verbal **c.** auditory
b. visual **d.** action

2. Gilbert has been advised by a learning expert to study using techniques like using flash cards, writing out important points in his own words and then reciting them, using sticky notes to emphasize important points, and creating descriptions of figures and images. Gilbert's tutor is recommending the use of _____ study methods.

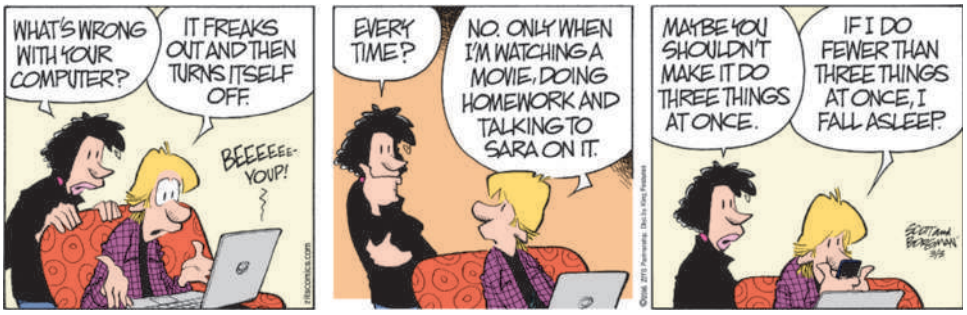
a. auditory **c.** visual
b. action **d.** verbal

Managing Time

PIA.2 Describe some strategies for time management.

One of the biggest failings of college students (and many others) is managing the time for all the tasks involved. Procrastination, the tendency to put off tasks until some later time that often does not arrive, is the enemy of time management. There are some strategies to defeating procrastination (The College Board, 2011):

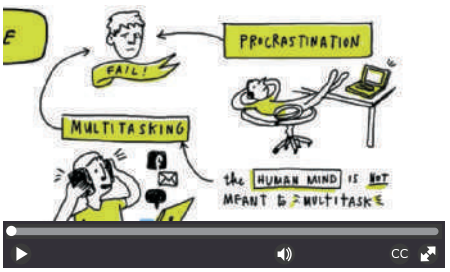
- Make a map of your long-term goals. If you are starting here, what are the paths you need to take to get to your ultimate goal?
- Use a calendar to keep track of class times, time devoted to studying, time for writing papers, work times, social engagements, everything! Use the calendar app on your phone, tablet, or computer—or all three.
- Before you go to bed, plan your next day, starting with when you get up and prioritizing your tasks for that day. Mark tasks off as you do them.



- Go to bed. Getting enough sleep is a necessary step in managing your tasks. Eating right and walking or stretching between tasks is a good idea, too.
- If you have big tasks, break them down into smaller, more manageable pieces. For example, if you have to write a paper, divide the task into smaller ones, such as making an outline or writing the introductory paragraph. How do you eat an elephant? One bite at a time.
- Do small tasks, like taking a practice quiz or writing the first paragraph of a paper, in those bits of time you might otherwise dismiss: riding the bus to school or work, waiting in a doctor's office, and so on.
- Build in some play time—all work and no play pretty much ensures that you will fail at keeping your schedule. Use play time as a reward for getting tasks done.
- If your schedule falls apart, don't panic—just start again the next day. Even the best time managers have days when things don't go as planned.

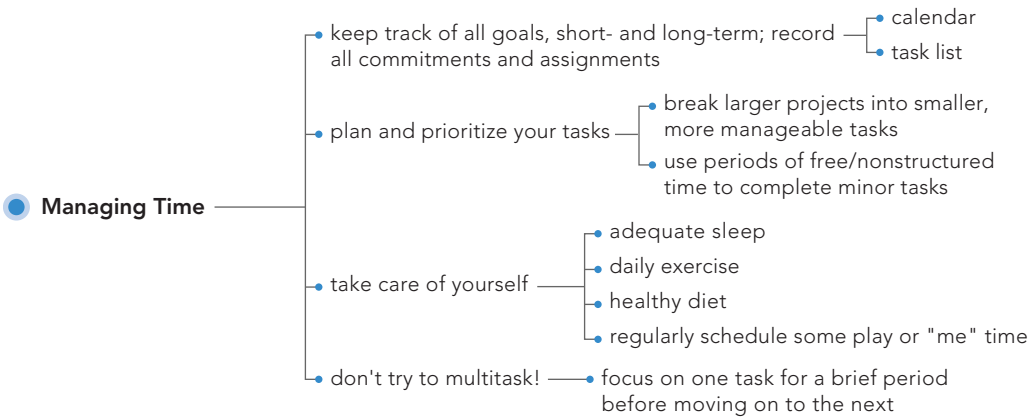
Another problem that often interferes with time management is the enduring myth that we can effectively multitask. In today's world of technological interconnectedness, people tend to believe that they can learn to do more than one task at a time. The fact, however, is that the human mind is not meant to multitask, and trying to do so not only can lead to car wrecks and other disasters but also may result in changes in how individuals process different types of information, and not for the better. One study challenged college students to perform experiments that involved task switching, selective attention, and working memory (Ophir et al., 2009). The expectation was that students who were experienced at multitasking would outperform those who were not, but the results were just the opposite: the "chronic multitaskers" failed miserably at all three tasks. The results seemed to indicate that frequent multitaskers use their brains less effectively, even when focusing on a single task. Yet another study found that the grade point averages of students who multitasked while studying were negatively affected (Junco & Cotton, 2012).

Researchers also have found that people who think they are good at multitasking are actually not (Sanbonmatsu et al., 2013), while still another study indicates that video gamers, who often feel that their success at gaming is training them to be good multitaskers in other areas of life such as texting or talking while driving, are just as unsuccessful at multitasking as nongamers (Donohue et al., 2012). In short, it's better to focus on one task and only one task for a short period of time before moving on to another than to try to do two things at once.



Watch the **Video** *Managing Time* on **MyPsychLab**

Concept Map L.O. PIA.2



Practice Quiz How much do you remember?

Pick the best answer.

1. Which of the following is *not* a question that students should ask themselves in order to maximize their studying effectiveness?
   - **a.** How can I most effectively highlight while I am reading my textbook?
   - **b.** How should I improve my memory for facts and concepts?
   - **c.** How can I best manage my time and avoid procrastination?
   - **d.** How can I write good term papers?
2. Which of the following is a suggestion to help you with time management skills?
   - **a.** When you have a big project to complete, try to complete it all at once rather than breaking it down into smaller pieces so that you don't put it off until later.
   - **b.** Try to focus only on short-term goals, since looking at long-term goals can be defeating and upsetting.
   - **c.** Build in some play time, using it as a reward for getting tasks done.
   - **d.** If your schedule falls apart, make sure to panic immediately!
3. What does the research show in regard to multitasking?
   - **a.** Chronic multitaskers have developed strategies that allow them to use their brains more effectively.
   - **b.** Chronic multitasking may be related to less effective ways of processing different types of information.
   - **c.** Multitasking is effective, but only if you limit the number of tasks to 5 or fewer.
   - **d.** Video gamers are better at multitasking in all areas of life.

Reading the Text: Textbooks Are Not Meatloaf

PIA.3 Describe how to read a textbook so that you get the most out of your reading efforts.

No matter what the study method, students must read the textbook or other assigned course materials to be successful in the course. (While that might seem obvious to some, many students today seem to think that just taking notes on lectures or slide presentations will be enough.) This section deals with how to read textbooks—whether in print or online—for understanding rather than just to "get through" the material.

Students make two common mistakes in regard to reading a textbook. The first mistake is simple: Many students don't bother to read the textbook *before* watching the lecture that will cover that material. Trying to get anything out of a lecture without having read the material first is like trying to find a new, unfamiliar place without using a GPS or any kind of directions. It's easy to get lost. This is especially true because of the assumption that most instructors make when planning their lectures: They take for granted that the

students have already read the assignment. The instructors then use the lecture to go into detail about the information the students supposedly got from the reading. If the students have not done the reading, the instructor's lecture isn't going to make a whole lot of sense.

The second mistake that most students make when reading textbook material is to try to read it the same way they would read a novel: They start at the beginning and read continuously. With a novel, it's easy to do this because the plot is usually interesting and people want to know what happens next, so they keep reading. It isn't necessary to remember every little detail—all they need to remember are the main plot points. One could say that a novel is like meatloaf—some meaty parts with lots of filler. Meatloaf can be eaten quickly, without even chewing for very long.

With a textbook, the material may be interesting but not in the same way that a novel is interesting. A textbook is a big, thick steak—all meat, no filler. Just as a steak has to be chewed to be enjoyed and to be useful to the body, textbook material has to be "chewed" with the mind. You have to read slowly, paying attention to every morsel of meaning.

So how do you do that? Probably one of the best-known reading methods is called SQ3R, first used by F. P. Robinson in a 1946 book called *Effective Study*. The letters S-Q-R-R-R stand for:

SURVEY Look at the chapter you've been assigned to read. Read the outline, learning objectives, or other opening materials. Then scan the chapter and read the headings of sections, and look at tables and figures. Quickly read through the chapter summary if one is provided.

It might sound like it takes too much time to do this, but you should just be skimming at this point—a couple of minutes is all it should take. Why do this at all? Surveying the chapter, or "previewing" it, as some experts call it, helps you form a framework in your head around which you can organize the information in the chapter when you read it in detail. Organization is one of the main ways to improve your memory for information. LINK to Learning Objective 6.5.

Before reading any chapter in a text, survey the chapter by reading the outline and the section headings.

QUESTION After previewing the chapter, read the heading for the first section. *Just* the first section! Try to think of a question based on this heading that the section should answer as you read. For example, in Chapter One there's a section titled "Pavlov, Watson, and the Dawn of Behaviorism." You could ask yourself, "What did Pavlov and Watson do for psychology?" or "What is behaviorism?" In this text, we've presented a list of learning objectives for the key concepts in the chapter that can be used with the SQ3R method. There are also student questions highlighted throughout the chapters that can serve the same purpose. Now when you read the section, you aren't *just* reading—you're reading to *find an answer*. That makes the material much easier to remember later on.

READ Now read the section, looking for the answers to your questions. As you read, take notes by making an outline of the main points and terms in the section. This is another area where some students make a big mistake. They assume that highlighting words and phrases is as good as writing notes. One of the author's former students conducted research on the difference between highlighting and note taking, and her findings were clear: Students who wrote their own notes during the reading of a text or while listening to a lecture scored significantly higher on their exam grades than students who merely highlighted the text (Boyd & Peeler, 2004). Highlighting requires no real mental effort (no "chewing," in other words), but writing the words down yourself requires you to read the words in depth and to understand them. When we study memory, you'll learn more about the value of processing information in depth. LINK to Learning Objective 6.2.

As you read, take notes. Write down key terms and try to summarize the main points of each paragraph and section in the chapter. These notes will be useful when you later review the chapter material.

RECITE It may sound silly, but reciting out loud what you can remember from the section you've just read is another good way to process the information more deeply and completely. How many times have you thought you understood something, only to

find that when you tried to explain it to someone, you didn't understand it at all? Recitation forces you to put the information in your own words—just as writing it in notes does. Writing it down accesses your visual memory; saying it out loud gives you an auditory memory for the same information. If you have ever learned something well by teaching it to someone else, you already know the value of recitation. If you feel self-conscious about talking to yourself, talk into a digital recorder—and it's a great way to review later.

Now repeat the Question, Read, and Recite instructions for each section, taking a few minutes' break after every two or three sections. Why take a break? There's a process that has to take place in your brain when you are trying to form a permanent memory for information, and that process takes a little time. When you take a break every 10 to 20 minutes, you are giving your brain the time to accomplish this process. A break will help you avoid a common problem in reading texts—finding yourself reading the same sentence over and over again because your brain is too overloaded from trying to remember what you just read.

After reading a chapter section, take time to reflect on what the information means and how it might relate to real-world situations.

RECALL/REVIEW Finally, you've finished reading the entire chapter. If you've used the guidelines listed previously, you'll only have to read the chapter as thoroughly this one time instead of having to read it over and over throughout the semester and just before exams. Once you've read the chapter, take a few minutes to try to remember as much of what you learned while reading it as you can. A good way to do this is to take any practice quizzes that might be available. For this text, we offer both practice quizzes within the print text and online quizzes and study materials in the e-text. If there are no quizzes, read the chapter summary in detail, making sure that you understand everything in it. If there's anything that's confusing, go back to that section in the chapter and read again until you understand it.

Some educators and researchers now add a fourth R: *Reflect*. To reflect means to try to think critically about what you have read by trying to tie the concepts into what you already know, thinking about how you can use the information in your own life, and deciding which of the topics you've covered interests you enough to look for more information on that topic (Richardson & Morgan, 1997). For example, if you have learned about the genetic basis for depression, you might better understand why that disorder seems to run in your best friend's family. LINK to Learning Objective 14.9.

Reading textbooks in this way means that, when it comes time for the final exam, all you will have to do is carefully review your notes to be ready for the exam—you won't have to read the entire textbook all over again. What a time saver! Recent research suggests that the most important steps in this method are the three Rs: read, recite, and review. In two experiments with college students, researchers found that when compared with other study methods such as rereading and note-taking study strategies, the 3R strategy produced superior recall of the material (McDaniel et al., 2009).

Watch the Video *Reading the Text* on **MyPsychLab**

Concept Map L.O. PIA.3

- **Reading the Text**
  - reading for learning is not the same as reading for pleasure
  - break up your reading sessions so you have time to process and understand the information
  - using a system of reading, reciting, and reviewing is very effective
    - SQ3R
    - SQ4R
    - 3R

Practice Quiz How much do you remember?

Pick the best answer.

1. What does the S in SQ3R stand for?
   a. survey **c.** synthesize
   b. study **d.** stand
2. As you read the text material, you should
   a. use a highlighter so that you don't waste time writing notes.
   b. avoid taking notes while reading so that you can concentrate on the material.
   c. make an outline of the main points and key terms.
   d. read the entire chapter all at once.
3. Candice has surveyed the material, developed questions to consider, and begun reading the material to find the answers to her questions. What should she do next?
   a. Recite out loud what she can remember from the section she just read.
   b. Reread the material a second time.
   c. Review the material from the chapter that she has read.
   d. Retain the material by committing it to memory.

Getting the Most Out of Lectures

PIA.4 Identify the best methods for taking notes and listening in class.

As mentioned earlier, mastering course content means you have to attend the lectures. Even if lectures are online, you have to read or watch them. But just attending or reading or watching is not enough; you have to process the information just as you have to process the text material. To get the most out of lectures, you need to take notes on the content, and taking notes involves quite a bit more than just writing down the words the instructor says or printing out the PowerPoint slides.

One very important fact you must remember: PowerPoint slides are not meant to be notes at all; they are merely talking points that help the instructor follow a particular sequence in lecturing. Typically, the instructor will have more to say about each point on the slide, and that is the information students should be listening to and writing down. In Table PIA.1, the suggestion to use highlighters of different colors is not meant to replace taking notes but instead to supplement the notes you do take.

How should you take notes? As stated earlier, you should try to take notes while reading the chapter (*before* attending the lecture) by writing down the main points and the vocabulary terms *in your own words* as much as possible. This forces you to think about what you are reading. The more you think about it, the more likely it is that the concepts will become a part of your permanent memory. LINK to Learning Objective 6.5.

Taking notes while listening to the lecture is a slightly different procedure. First, you should have your notes from your earlier reading in front of you, and it helps to leave plenty of space between lines to add notes from the lecture. A major mistake made by many students is to come to the lecture without having read the material first. This is an EXTREMELY BAD IDEA. If you come to the lecture totally unprepared, you will have no idea what is important enough to write down and what is just the instructor's asides and commentary. Reading the material first gives you a good idea of exactly what is important in the lecture and reduces the amount of notes you must take.

Here are two things that instructors love to see: attentive looks and note taking during the lecture. And for the student who learns better just listening, a small digital recorder (used with permission) can help for later review of the lecture. How should these students have prepared before coming to this class?

THINKING CRITICALLY

What are some reasons why not relying on the instructor's PowerPoints might be beneficial in committing information to memory?

There is an art to really listening to someone, too, often called *active listening*. Active listeners make eye contact with the speaker and sit facing the speaker in a place where they can easily hear and see the speaker. Active listeners focus on what is being said rather than how the speaker looks or sounds (not always an easy task) and