

Psychology

A Journey 5e

Dennis Coon • John O. Mitterer



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Psychology: A Journey ^{5e}

Dennis Coon

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Brock University



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Psychology: A Journey, Fifth Edition

Dennis Coon, John O. Mitterer

Publisher: Jon-David Hague

Development Editors: Nicolas Albert,
Arwen Petty, and Shannon LeMay-Finn

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Rights Acquisitions Specialist: Don Schlotman

Production Service: Kate Mannix,
Graphic World Inc.

Text and Cover Designer: Jeanne Calabrese

Photo Researcher: Roman Barnes

Text Researcher: Sue Brekka

Cover Image: Inesfot/Veer Images

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Library of Congress Control Number: 2012945716

Student Edition:

ISBN-10: 1-133-95782-X

ISBN-13: 978-1-133-95782-9

Loose-leaf Edition:

ISBN-10: 1-133-95780-3

ISBN-13: 978-1-133-95780-5

Wadsworth20 Davis Drive
Belmont, CA 94002-3098
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Printed in Canada

1 2 3 4 5 6 7 16 15 14 13 12

To our students: We thank you and wish you all the best with your studies. You are the reason we write about psychology. As an old rock-and-roll band once sang, “If there’s no audience, there just ain’t no show.”

About the Authors

Dr. Coon is the author of *Psychology: Modules for Active Learning* and *Introduction to Psychology: Gateways to Mind and Behavior*, as well as *Psychology: A Journey*. Together, these texts have been used by more than 2 million students. Dr. Coon frequently serves as a reviewer and consultant to publishers, and he edited the best-selling trade book *Choices*. He also helped design modules for PsychNow!, Wadsworth's interactive CD-ROM.

In his leisure hours, Dr. Coon enjoys hiking, photography, painting, woodworking, and music. He also designs, builds, and plays classical and steel string acoustic guitars. He has published articles on guitar design and occasionally offers lectures on this topic, in addition to his more frequent presentations on psychology.



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John Mitterer was awarded his Ph.D. in cognitive psychology from McMaster University. Currently, Dr. Mitterer is a faculty member at Brock University, where he has taught more than 25,000 introductory psychology students. He is the recipient of the 2003 Brock University Distinguished Teaching Award, a 2003 Ontario Confederation of University Faculty Associations (OCUFA) Teaching Award, a 2004 National 3M Teaching Fellowship, the 2005 Canadian Psychological Association Award for Distinguished Contributions to Education and Training in Psychology, and the 2010 Brock University Don Ursino Award for Excellence in the Teaching of Large Classes. He also held a three-year Brock Chancellor's Chair for Teaching Excellence from 2006 to 2009.

His first love is in applying cognitive principles to the improvement of undergraduate education. In support of his introductory psychology course, he has been involved in the creation of textbooks and ancillary materials such as CD-ROMs and websites for both students and instructors. Dr. Mitterer has published and lectured on undergraduate instruction throughout Canada and the United States.

In his spare time, Dr. Mitterer strives to become a better golfer and to attain his life goal of seeing all the bird species in the world. To this end he recently traveled to Papua New Guinea, Uganda, the Galapagos, and China.



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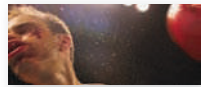
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Preface

To the Student—The Journey Begins

Greetings from your authors! We look forward to being your guides as you explore the exciting field of psychology and our ever-evolving understanding of human behavior. In a very real sense, we wrote this book about you, for you, and to you. We sincerely hope you will find, as we do, that what you learn is at once familiar, exotic, surprising, and challenging.

Reading *Psychology: A Journey*

In *Psychology: A Journey*, we have done all that we could imagine to make it enjoyable for you to read this book. We trust you will find your first journey through psychology to be quite interesting and useful to you in your everyday life. Each chapter will take you into a different realm of psychology, such as personality, abnormal behavior, memory, consciousness, and human development. Each realm is complex and fascinating in its own right, with many pathways, landmarks, and interesting detours to discover. Like any journey of discovery, your exploration of psychology will help you to better understand yourself, others, and the world around you. It's definitely a trip worth taking.

Studying *Psychology: A Journey*

No one likes to start a new adventure by reading a manual. We just want to step off the airplane and begin our vacation, get right into that new computer game, or just start using our new camera or smart phone. You might be similarly tempted to just start reading this textbook. Please be patient. Successfully learning psychology depends on how you study this book as well as how you read it.

Psychology is about each of us. It asks us to adopt a reflective attitude as we inquire, “How can we step outside ourselves to look objectively at how we live, think, feel, and act?” Psychologists believe the answer is through careful thought, observation, and inquiry. As simple as that may seem, thoughtful reflection takes practice to develop. It is the guiding light for all that follows.

Psychology: A Journey, then, is your passport to an adventure in active learning, not just passive reading. To help you get off to a good start, we strongly encourage you to read our short “manual,” *Introduction: The Psychology of Studying*, which precedes Chapter 1. This introduction describes a variety of study skills, including the *reflective SQ4R* method, that you can use to get the most out of this text, your psychology course, and your other courses as well. It also tells how you can explore psychology through digital media such as the Internet, electronic databases, and interactive CDs.

To the Instructor—An Invitation to Teach Psychology

Thank you for choosing *Psychology: A Journey* for your students and for your course. Marcel Proust wrote, “The real voyage of discovery consists not in seeing new landscapes but in having new eyes.” It is in this spirit that we have written this book to promote not just an interest in human behavior but an appreciation for the perspective of the psychologist as well.

As we point out to your students in the *Introduction: The Psychology of Studying*, which precedes Chapter 1, there is a big difference between experiencing and reflecting on experience (Norman, 1994). For John Dewey (1910), reflective thinking is the “active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusion to which it tends.” The psychologist’s perspective, of course, involves reflecting on human behavior in a variety of ways. When it comes to studying psychology, reflective cognition requires actively thinking *about* what you have just read, which results in deeper understanding and memory. (Please consider taking a look at our *Introduction*, as it explains to your students in some detail how to become a more reflective student and outlines how they can get the most out of this book. By the way, we encourage you, if at all possible, to assign your students to read it as well.)

Throughout this text, we have tried to select only the very “best” material from the many topics that could be presented. Nevertheless, *Psychology: A Journey* covers not only the heart of psychology but also many topics at the cutting edge of current knowledge, including a focus on the practical applications of psychology, the growing importance of neuroscience, and the richness of human diversity. New information, anecdotes, perspectives, and narratives appear throughout the 5th edition. The result is a concise text that is readable, manageable, informative, and motivating. At the same time, we have structured this book to help students consolidate the skills to learn efficiently and to become better critical thinkers. Without such skills, students cannot easily go, as Jerome Bruner (1973) put it, “beyond the information given.”

The Teaching Challenge

Wouldn’t it be nice if all of our students came to our courses highly motivated to explore psychology and well prepared to cope with the learning challenges we create for them? As the authors of this textbook, we have together accumulated some 60 years of classroom experience, teaching tens of thousands of college and university students. Although we have found most students to be generally well intentioned, our modern world certainly does immerse them in their work, careers, families, intimate relationships, popular culture, and life in general. As we compete for ever more limited student attention, we must do more than just lecture in psychology. We must also motivate our students to read and learn, as well as to educate them about how to learn effectively (Matthew & Sternberg, 2009; Paternoster & Pogarsky, 2009).

We have explicitly designed and written the 5th edition of *Psychology: A Journey* to foster deeper student engagement with the field of psychology, better memory for what has been read and studied, and a deeper understanding of how to become more reflective learners and thinkers. To help you and your students reach these goals, we have organized our design philosophy around three core principles:

1: Readability and Narrative Emphasis

Many introductory psychology students are reluctant readers. Selecting a textbook is half the battle in teaching a successful course. A good text does much of the work of imparting information to your students. This frees class time for your discussion, extra topics, or media presentations. It also leaves students asking for more. When a book overwhelms students or cools their interest, teaching and learning suffer. If students won’t read the textbook, they can’t very well be reflective about what they have read.

That’s why we’ve worked hard to make this a clear, readable, and engaging text. *Psychology: A Journey* is designed to give students a clear grasp of major concepts without burying them in details. At the same time, it offers a broad overview that reflects psychology’s rich heritage of ideas. We think students will find this book informative and intellectually stimulating.

Because we want students to read this book with genuine interest and enthusiasm, not merely as an obligation, we have made a special effort to weave narrative threads through every chapter. Everyone loves a good story, and the story of psychology is among the most compelling to be told. Throughout *Psychology: A Journey*, we have used intriguing anecdotes and examples to propel reading and sustain interest.

Practical Applications

To make psychology even more inviting to students, we have emphasized the many ways that psychology relates to practical problems in daily life. For example, a major feature of this book is the *Psychology in Action* sections found at the end of each chapter. These high-interest discussions bridge the gap between theory and practical applications. We believe it is fair for students to ask, “Does this mean anything to me? Can I use it? Why should I learn it if I can’t?” The *Psychology in Action* sections show students how to solve practical problems and manage their own behavior. This allows them to see the benefits of adopting new ideas, and it breathes life into psychology’s concepts.

2: Integrated Support for Active Learning

Studying, rather than reading, a textbook requires the active cognitive engagement that psychologist Donald Norman (1993) calls *reflective*. In his recent book, *Thinking, Fast and Slow*, Daniel Kahneman describes it as *System 2* thinking (Kahneman, 2011). Being reflective when you read a textbook involves asking yourself if you understand what you are reading, how it might relate to things you already know, what new questions your reading might trigger, and so on. The resulting elaboration of the just-read new information is, perhaps, the best way to foster understanding and form lasting memories (Anderson, 2010a; Gadzella, 1995; Goldstein, 2011).

It is in this spirit that we have redesigned this edition of *Psychology: A Journey* to encourage students to become more reflective, active learners. To achieve this important pedagogical goal, the traditional SQ4R method has been updated to *reflective SQ4R*, an active-learning format, to make studying psychology an even more rewarding experience. As students explore concepts, they are encouraged to think critically about ideas and relate them to their own experiences. Notice how the steps of the reflective SQ4R method—*survey, question, read, recite, reflect, and review*—are incorporated into the chapter design:

Survey

Features at the beginning of each chapter help students build cognitive maps of upcoming topics, thus serving as advance organizers (Ausubel, 1978). A photograph and short *Journey into Psychology* preview arouses interest, gives an overview of the chapter, and focuses attention on the task at hand. A *Journey Theme* and a list of more detailed *Journey Questions* are then given to guide reading. These questions are now also numbered, making it easier for students and instructors to relate the *Journey Questions* to a matched set of learning objectives that appear throughout the materials that accompany this textbook.

The answers to *Journey Questions* open intellectual pathways and summarize psychology’s “big ideas.” Ultimately, those answers provide a good summary of what students have learned. With these chapter-opening features, we invite students to read with a purpose and actively process information.

Question

How can questioning be built in to a textbook? Each major chapter section begins with one or more *Journey Questions*. As students read a chapter, they can try to discover the answers to these questions. They can then compare their answers with the ones listed in the chapter summary.

Further, throughout each chapter, italicized *Dialogue Questions*, like the one on the previous page, also serve as advance organizers. That is, *Dialogue Questions* prompt students to look for important ideas as they read, thus promoting active learning. They also establish a dialogue in which the questions and reactions of students are anticipated. This clarifies difficult points in a lively give-and-take between questions and responses.

Read

We've made every effort to make this a clear, readable text. To further aid comprehension, we've used a full array of traditional learning aids. These include boldface terms (with phonetic pronunciations), bulleted summaries, a robust illustration program, summary tables, a name index, and an integrated subject index and glossary. As an additional aid, figure and table references in the text are printed in different colored text. These “placeholders” make it easier for students to return to the section they were reading after they have paused to view a table or figure.

We have made the glossary function in this edition even more powerful. The *Main Glossary*, at the end of the book, has been integrated with the *Subject Index*, making it easier to link important definitions to where they are discussed in the text. As before, all glossary items are bolded and defined in-text when a term is first encountered. This aids reading comprehension because students get clear definitions when and where they need them—in the general text itself. In addition, the parallel *Running Glossary* defines key terms in the margins of the relevant pages, making it easy for students to find, study, and review important terms.

Recite

Throughout each chapter, strategically placed built-in *Study Breaks* give students a chance to test their recall and further develop their understanding of preceding topics. Each *Study Break* includes a *Recite* section, a short, noncomprehensive quiz to help students actively process information and assess their progress. *Recite* questions, which are not as difficult as in-class tests, are meant to offer a sample of what students could be asked about various topics. Students who miss any items are encouraged to backtrack and clarify their understanding before reading more. In other words, completing *Recite* questions serves as a form of recitation to enhance learning. The same is true for longer chapter-ending *Test Your Knowledge* quizzes.

Reflect

Since simple recitation is usually not enough to foster deeper understanding, in each chapter we invite students to engage in two distinct types of reflection, self-reflection and critical thinking:

- **Self-Reflection:** Self-reflection (or self-reference) makes new information more meaningful by relating it to what is already known (Klein & Kihlstrom, 1986). We provide many opportunities for self-reflection throughout *Psychology: A Journey*. The text is written with many contemporary references, examples, and stories to make it easier for students to relate what they are reading to their own life experience. As we mentioned previously, each chapter ends with a *Psychology in Action* section that invites students to relate psychology to practical problems in their own daily lives.

Discovering Psychology boxes in many chapters are “try-it” demonstrations that enable students to observe interesting facets of their own behavior or do self-assessment exercises. In this way, students are given yet another way to link new information to concrete experiences. Finally, to help students further elaborate their new understanding, each *Study Break* includes a series of *Self-Reflect* questions that encourage students to connect new concepts with personal experiences and prior knowledge.

- **Critical Thinking:** Being reflective about psychology involves more than self-reflectively asking “What does this have to do with me and what I already know?” It also involves reflecting more deeply about the field. Our book also invites students to think critically about psychology.

The active, questioning nature of the reflective SQ4R method is, in itself, an inducement to critical thinking. In addition, every *Study Break* also includes *Think Critically* questions. These stimulating questions challenge students to think critically and analytically about psychology. Each is followed by a brief answer with which students can compare their own thoughts. Many of these answers are based on research and are informative in their own right. Many of the *Dialogue Questions* that introduce topics in the text also act as models of critical thinking.

Further, Chapter 1 contains a discussion of critical thinking skills and a rational appraisal of pseudopsychologies. In addition, the discussion of research methods in Chapter 1 is actually a short course on how to think clearly about behavior. It is augmented by suggestions about how to critically evaluate claims in the popular media. Chapter 8, which covers cognition, language, creativity, and intelligence, includes many topics related to critical thinking.

Throughout the text, many boxed highlights promote critical thinking about specific topics that students should approach with healthy skepticism. The *Critical Thinking* boxes model a reflective approach to the theoretical and empirical foundations of critical thinking in psychology. In addition, *Human Diversity* boxes encourage reflection on the variability of the human experience, *Clinical File* boxes encourage reflection on the clinical applications of psychology, and *Brainwaves* boxes foster deeper insight into the brain structures and processes that underlie psychological phenomena. Taken together, these features will help students think more reflectively about your course and the field of psychology, while also gaining thinking skills of lasting value.

Review

As we noted previously, all important terms appear in a *Running Glossary* throughout the book, which aids review. We have also integrated the *Main Glossary* with the *Subject Index*. When reviewing, students can easily link definitions of concepts with the appropriate section of text where those concepts are introduced and discussed.

As also noted, a *Psychology in Action* section shows students how psychological concepts relate to practical problems, including problems in their own lives. The information found in *Psychology in Action* helps reinforce learning by illustrating psychology’s practicality.

To help students further consolidate their learning, each *Chapter in Review* includes a *Summary*, which restates all of the major ideas presented earlier in the chapter, organized around the same *Journey Questions* found at the beginning of the chapter. In this way we bring the reflective SQ4R process full circle and reinforce the learning objectives for the chapter.

3: Integrative Themes: *The Whole Person*

No one linear chapter organization can fully capture the interconnectedness of our field. We have, of course, included the usual “for more information see Chapter XX” cross-references. But to better convey this richness, we also explore the natural complexity of psychology by weaving several more detailed themes throughout the chapters of this edition of *Psychology: A Journey*.

One theme is that of *positive psychology*. Over the last decade or so, increasing interest in positive psychology has begun to complement the focus of the previous 100 years on the negative side of human behavior. What do we know, for instance, about love, happiness,

creativity, well-being, self-confidence, and achievement? Throughout this book, we have attempted to answer such questions for students, often in periodic, short integrative sections entitled *The Whole Person*. Our hope is that students who read this book will gain an appreciation for the potential we all have for optimal functioning. Also, of course, we hope that they will leave introductory psychology with emotional and intellectual tools they can use to enhance their lives.

Starting in Chapter 1, we also explore the idea that human behavior is better understood when examined from three complementary perspectives, the biological, the psychological, and the sociocultural, again often in *The Whole Person* summaries. You may choose to explicitly present these perspectives to your students. Alternatively, you might leave these for your students to explore and unconsciously absorb.

The Biological Perspective: The Growing Importance of Neuroscience

Our students, partly because of the popular media, are increasingly aware that the brain and the nervous system play a role in shaping human behavior. While our chapter on *Brain and Behavior* deals with the usual topics, such as methods of studying the brain, neural functioning, synaptic transmission, the structure of the nervous system and brain, and the endocrine system, we deliberately include a discussion of the biological perspective in many of the other chapters comprising this book. One way we do this is to incorporate a *Brain-waves* box into some of those chapters. **Table P.1** gives a chapter-by-chapter list of topics that are discussed from the biological perspective.

The Psychological Perspective: The Centrality of Self-Knowledge

There are many ways we have threaded the psychological perspective throughout this book. It is, of course, central to psychology. In this edition of *Psychology: A Journey*, we have chosen to place a special thematic emphasis on the self. In doing so, we respond to Timothy Wilson's (2009) criticism that introductory psychology courses do not spend enough time exploring the issue of self-knowledge, despite the fact that students are terribly interested in learning more about themselves. Besides, as you may have already noted, our focus on active, reflective learning is also designed to improve our students' self-awareness. Throughout the book we follow the development of the self from the beginnings of self-recognition in infancy to the development of wisdom in old age. **Table P.1** gives a chapter-by-chapter list of the relevant discussions.

The Sociocultural Perspective: Human Diversity, Culture, and Gender

Of course, no introductory psychology textbook would be complete without a discussion of human diversity and the multicultural, multifaceted nature of contemporary society. In *Psychology: A Journey*, students will find numerous discussions of human diversity, including differences in race, ethnicity, culture, gender, abilities, sexual orientation, and age. Too often, such differences needlessly divide people into opposing groups. Our aim throughout this text is to discourage stereotyping, prejudice, discrimination, and intolerance. We've tried to make this book gender neutral and sensitive to diversity issues. All pronouns and examples involving females and males are equally divided by gender. In artwork, photographs, and examples, we have tried to portray the rich diversity of humanity. In addition, a boxed feature, *Human Diversity*, appears throughout the book, providing students with examples of how to be more reflective about human diversity.

In short, many topics and examples in this book encourage students to appreciate social, physical, and cultural differences and to accept them as a natural part of being human. **Table P.1** also gives a chapter-by-chapter list of discussions of issues of human diversity, culture, and gender.

Table P.1 Coverage of Neuroscience, Self-Knowledge, Human Diversity, Culture, and Gender Across Chapters in *Psychology: A Journey*, 5th Edition

CHAPTER	NEUROSCIENCE IN PSYCHOLOGY: A JOURNEY	SELF-KNOWLEDGE IN PSYCHOLOGY: A JOURNEY	HUMAN DIVERSITY AND CULTURE IN PSYCHOLOGY: A JOURNEY	GENDER IN PSYCHOLOGY: A JOURNEY
Chapter 1: Thinking Critically About Psychology and Research Methods	Neuroscience and biopsychology, evolutionary psychology, the biological perspective, EEG and dreaming, links between brain and behavior, phrenology, Phineas Gage and case studies	Importance of self-knowledge, ethical research, psychological perspective, self-actualization, testing common sense, critical thinking, personal freedom, scientific thinking, introspection, behaviorism, humanism, eclecticism	Cultural psychology, human diversity, appreciating social and cultural differences, the impact of culture, cultural relativity, a broader view of diversity, human diversity and representative samples	The psychology of gender, gender differences in research, women in psychology, gender and social norms
Chapter 2: Brain and Behavior	Neural function, synaptic transmission, neurotransmitters, parts of the nervous system and brain, localization of function, methods of studying the brain, endocrine system, handedness	Brain and self, localization of function, including self, self-directed neuroplasticity, locked-in syndrome, truth and lies, split-brain and consciousness, intelligence, frontal lobes, strokes and self, hemispheres and self, mirror neurons, thinking styles, emotions	Biological treatments for people with spinal injuries, hypopituitary dwarfism, acromegaly, handedness and laterality, brain interfaces for people with total paralysis, diagnosis of neurological conditions, cultural experiences shape the brain, handedness and culture	Specialization of men's and women's brains, sex differences in lateralization, hormonal differences, sex and steroids
Chapter 3: Human Development	Biological factors in heredity and development, readiness, maturation, prenatal biological influences, sensitive periods, enriched environments and the brain, temperament, biological predisposition to language, cognitive stages and brain maturation, puberty, physical changes in old age	Temperament, newborn sensitivity, imitation, attachment, terrible twos, egocentrism, theory of mind, self-awareness, turn-taking in language development, self-recognition, search for identity, moral development, role confusion, self-acceptance, personal growth, subjective well-being, self-esteem, reactions to impending death	Culture and evolution, ethnic differences in child-rearing, relationship between culture and babbling, parentese in different cultures, sociocultural influences on cognitive development, scaffolding, zone of proximal development, adolescent status and culture, diversity and the adolescent search for identity, ethnicity and personal identity, culture and moral reasoning, ageism and myths about the elderly	Prenatal development, maternal and paternal parenting styles, emotional attachment patterns, gender and puberty, male and female midlife transitions
Chapter 4: Sensation and Perception	Sensory filtering, transduction, sensory localization in the brain, electrical stimulation of sensory experiences in the brain and sensory nerves, physiology of various sense receptors and sensory pathways, sensory gating, neuromatrix theory, perceptual construction and learning	Perceptual experiences, psychophysics, reality testing, perceptual awareness, perceptual learning, perceptual habits and top-down processing	The “other race” effect in facial recognition, culture and the recognition of pictorial depth cues, culture and the Müller-Lyer illusion, cross-racial perceptions (eyewitness accuracy), cultural differences in perception	Sex differences in color deficiency
Chapter 5: States of Consciousness	EEG, stages of sleep, REM and dreaming, biological theories of sleep and dreaming, effects of “sleeping pills,” narcolepsy, EEG and hypnosis, brain scans and meditation, how psychoactive drugs affect the brain and neurotransmitters, drug addiction	Consciousness, self-awareness and heightened self-awareness, self-control under hypnosis, autosuggestion, self-control, mindfulness, analyzing dreams, lucid dreaming	States of consciousness and culture, culture and interpretations of dreams and hypnopompic imagery, the cultural context of drug use	REM sleep and dreaming in men and women, caffeine and pregnancy, effects of Ecstasy and alcohol on sexual performance

Chapter 6: Conditioning and Learning

Eyeblink conditioning and diagnosis of autism and minimal consciousness, conditioned emotional reactions and the amygdala, primary reinforcement and intracranial self-stimulation

Awareness of cognitive learning versus unconscious nature of associative learning, self-managed behavior

Spanking and culture

Effects of television on children's perceptions of sex roles, effects of television on children's level of aggression

Chapter 7: Memory

Penfield, brain stimulation, and memory; amnesia and types of memory; cerebellum and procedural memory; brain trauma and amnesia; consolidation; long-term potentiation; role of hippocampus in declarative memories; limbic system and flashbulb memories; cortex and long-term memory

Episodic memory, elaborative encoding, experience of partial retrieval, self-reference and memory, mnemonics

Aging and memory, cultural influences on memory, eyewitnesses and cross-racial recognition, labeling and the ability to remember people from other social groups

Recovered memories versus false memories

Chapter 8: Cognition, Language, Creativity, and Intelligence

Synesthesia, imagery and the brain, kinesthetic imagery, sign language and the brain, organic causes of mental disability, heredity and intelligence

Synesthesia, imagery, kinesthetic images, cognitive effects of bilingualism, linguistic relativity, insight, intuition, creativity, giftedness, self-respect and intellectual disability, multiple intelligences, wisdom

Linguistic misunderstandings between cultures; the pros and cons of bilingualism; linguistic relativity; cultural differences in the use of phonemes; the deaf community and gestural languages; cultural barriers to problem solving; age and IQ; the developmentally disabled; race, culture, ethnicity, and intelligence; cultural differences in intelligence (as taught to children); culture-fair intelligence testing

Stereotypes and cognition; sex differences in IQ; men, women, and the definition of intelligence

Chapter 9: Motivation and Emotion

Needs as internal deficiencies; biological motives; homeostasis; circadian rhythms; role of melatonin; biological factors in hunger, hypothalamus and thirst; types of thirst; estrus; sex hormones; sexual orientation; prenatal biological basing effect; physiological changes and emotion; physiological arousal; moods, emotion, and the limbic system, including the amygdala; role of the autonomic nervous system and arousal; parasymphathetic rebound; polygraphy; brain scans and lying

Intrinsic motivation and creativity, meta-needs, self-actualization, emotional expression and health, higher emotional intelligence

Cultural values and food preferences; culture, ethnicity, and dieting; pain avoidance and cultural conditioning; sexual scripts; casual sex in America; the influence of culture on emotional expressions; cultural differences in the occurrence of emotion; cultural differences in facial expressions; cultural learning and body language

Eating disorders and gender, how hormones affect sex drive, gender differences in sexual response, sexual activity, sexual orientation, role of hormones in sex drive, gender differences in emotion, alexithymia

Chapter 10: Personality

Behavioral genetics and personality, Big 5 traits and neurotransmitters, limbic system and the unconscious

Long-term consistency of self, self-concept, self-esteem, self-confidence, Freudian ego, free choice, self-actualization, positive personality traits, self-image, congruence (between self-image and ideal self), possible selves, self-efficacy, self-reinforcement, androgyny and self-expression

Character and culture, self-esteem and culture, common traits and culture, culture and gender roles

Social learning of male and female traits, Oedipus versus Electra complexes, gender roles, gender-role stereotypes, culture and gender roles, gender-role socialization, androgyny

Table P.1 Coverage of Neuroscience, Self-Knowledge, Human Diversity, Culture, and Gender Across Chapters in *Psychology: A Journey*, 5th Edition—cont'd

CHAPTER	NEUROSCIENCE IN PSYCHOLOGY: A JOURNEY	SELF-KNOWLEDGE IN PSYCHOLOGY: A JOURNEY	HUMAN DIVERSITY AND CULTURE IN PSYCHOLOGY: A JOURNEY	GENDER IN PSYCHOLOGY: A JOURNEY
Chapter 11: Health, Stress, and Coping	Stress reaction, general adaptation syndrome, psychoneuroimmunology, psychosomatic disorders, biofeedback	Self-screening for illnesses, self-control, wellness, cognitive appraisal, coping, hardiness, optimism, happiness, stress management, humor, sexual self-awareness, sexually responsible behavior, sexuality and self-esteem	Culture shock and acculturative stress, scapegoating of ethnic group members, frustration and minority groups, AIDS and sexual orientation, AIDS worldwide	Rates of HIV/AIDS infection and death, sex differences in seeking social support
Chapter 12: Psychological Disorders	Biological risk factors, organic psychosis, Alzheimer's disease, hereditary and biological causes of schizophrenia, the schizophrenic brain, biology and depression, the psychopathic brain, diathesis-stress model	Self-destructive behaviors, nonconformity, subjective discomfort, loss of self, self-criticism, self-defeating thinking patterns	How culture affects judgments of psychopathology, culture-bound syndromes from around the world, ethnic group differences in psychopathology	How gender affects judgments of psychopathology, gender differences in rates of anxiety disorders, sex differences in rates of clinical depression, gender differences in suicide (attempt and completion)
Chapter 13: Therapies	Drug therapies, ECT, brain stimulation therapy, psychosurgery, future of medical therapies, transcranial magnetic stimulation	Insight, personal growth and psychotherapy, human potential, choosing to become, courage, overcoming irrational beliefs, the fully functioning person, behavioral self-management	Cultural issues in counseling and psychotherapy, culturally aware therapists	
Chapter 14: Social Behavior	"Brainwashing"; homogamy, evolution, and mate selection; aggression, biology, and the brain	Social comparison, self-disclosure, self-assertion, solitude	Culture, social roles, in-groups versus out-groups, social status, attitudes, male-female differences in mate preferences, racial prejudice and discrimination, ethnocentrism, social stereotypes, cultural differences in hostility and aggression, symbolic prejudice, rejection and demonization of out-groups, experiments in creating and reducing prejudice, multiculturalism, breaking the prejudice habit, cultural awareness	Stereotype threat and gender, influence of physical attractiveness, male-female differences in mate preferences, evolutionary perspectives on male and female mate selection, critique of evolutionary perspective, levels of testosterone and aggression

Psychology: A Journey—What’s New in the Fifth Edition?

Thanks to psychology’s vitality and suggestions from professors, this text is updated in many ways. The fifth edition of *Psychology: A Journey* features an improved pedagogy as well as some of the most recent and interesting information in psychology, along with fully updated references and statistics. The following annotations highlight some of the new topics and features that appear in this edition.

Introduction: The Psychology of Studying

- The updated Introduction, which we invite you to have your students read, offers information on how to read effectively, study more efficiently, take good notes, prepare for tests, perform well on various types of tests, create study schedules, and avoid procrastination.
- The SQ4R framework is now referred to as “reflective SQ4R.” Our intent is to more clearly combine the comprehension-boosting power of critical thinking approaches with the memory-boosting power of the traditional SQ4R method.
- *Study Breaks* have been more clearly labeled so that students can more easily see the connection with the reflective SQ4R method. Specifically, after the *Recite* section, the *Reflect* section now includes *Think Critically* questions and *Self-Reflect* questions. This combination makes it clearer that relating new information to personal experiences and thinking critically about new information are both forms of self-reflective cognition.

Chapter 1: Thinking Critically About Psychology and Research Methods

- The chapter title has been changed to better reflect our deliberate focus on critical thinking skills.
- We created a new chapter-opening photo and vignette.
- Material on commonsense knowledge has been clarified, with new examples and a new figure.
- Information on research specialties has been integrated into an expanded table and discussion in the section entitled *Psychologists—Guaranteed Not to Shrink*.
- Material on animal research is now found in *Psychologists—Guaranteed Not to Shrink*, including a new photo and caption on orca conservation.
- The section on critical thinking has been revised, beginning with a new definition of critical thinking in psychology. The principle of falsifiability has been added as a fifth principle.
- The coverage of astrology has been reorganized around two major objections to astrology: lack of theory and lack of evidence.
- The concept *fallacy of positive instances* has been replaced with the more widely used *confirmation bias*.
- The section on the scientific method is now organized around a new, more recent research example.

Chapter 2: Brain and Behavior

- A dramatic new chapter-opening photo and vignette highlight chronic traumatic brain injury.
- Experience has shown us that students find it easier to grasp the overall organization of the nervous system before tackling the details of neuronal and synaptic functioning. We have revised our order of coverage accordingly.
- Expanded coverage of neurotransmitters includes a new table. The main neurotransmitters from the table are revisited throughout the remainder of the book.

- The spinal reflex arc is now treated as a simple neural network.
- Material on neuroplasticity and neurogenesis is now collected in a new, unified section, *Neuroplasticity and Neurogenesis*.
- We have updated the discussion about the size of the human brain, stressing the role of corticalization.
- A new feature, *Mirror, Mirror in the Brain*, explores mirror neurons and the provocative “broken mirrors” hypothesis of autism spectrum disorders.
- Another new feature, *Trapped!*, extends our previous coverage of hindbrain damage.
- The hormone oxytocin is now discussed.

Chapter 3: Human Development

- This chapter has been reorganized to offer more extended coverage of adult development relative to coverage of child development.
- Material on infant and early child development has been reorganized and streamlined.
- Harry Harlow’s “cloth mother” studies are now covered in the section *Social Development in Infancy*.
- The section *Cognitive Development in Children* has been streamlined and now includes a new feature, *Theory of Mind: I’m a Me!... and You’re a You!*
- The section on middle adulthood has been expanded to include coverage of health, family, and career issues.
- We have added coverage of material on death and dying.
- A new *Psychology in Action* section now discusses well-being and happiness.

Chapter 4: Sensation and Perception

- A new chapter-opening photo and vignette highlight the possibility of perceptual *misconstruction*.
- The opening section on sensory processes has been reorganized and rewritten and now deals with early, sensory selectiveness (selection, adaptation, analysis, coding).
- Psychophysics and absolute and relative thresholds are now introduced in the opening section.
- Rhodopsin and iodopsin are now clearly identified as rod and cone photosensitive pigments.
- The number of human smell receptors encoded by genes (1000) is now distinguished from the number actually expressed (400).
- Information on gate control and neuromatrix theories of pain is now included in the section on somesthetic senses, along with other material on pain.
- Material on selective attention has been expanded and placed after the section on perception and is no longer grouped with information on sensory gating and sensory adaptation to emphasize that selective attention is a “late” (i.e., brain-based) mechanism, not an “early” (i.e., sense-based) one.
- The material on the Müller-Lyer illusion is now covered in a later section on perceptual learning and perceptual habits.

Chapter 5: States of Consciousness

- The opening vignette and first section have been rewritten to better reflect the notion of levels of consciousness as well as altered states of consciousness.
- The definition of consciousness has been updated to more clearly reflect the current consensus that normal consciousness is of the external world and the internal world.
- Repair/restorative theories of sleep are now discussed.
- The health risks of sleep apnea are now better stressed.
- A section on narcolepsy has been added.

- Sensory deprivation (“floating” or restricted environmental stimulation therapy) is now treated as a type of meditation, and is treated as a boxed feature.
- Drug abuse statistics have been updated throughout the chapter.
- A note about the benefits of legal psychoactive drug use is now included.
- We now cover amphetamine use as “study drugs.”
- A new section on narcotics has been added.
- The harm reduction approach to managing substance abuse is now discussed.
- The *Psychology in Action* section has been revised. Ernest Hartmann’s contemporary theory of dreaming is now discussed.

Chapter 6: Conditioning and Learning

- The use of the term *reinforcer* has been limited to the usual sense in operant conditioning and is no longer used to refer to classical conditioning.
- A new feature, *In the Blink of an Eye*, discusses the clinical uses of eye blink conditioning.
- John Watson and Little Albert are now mentioned in the discussion of conditioned emotional responses.
- More current examples of the applications of reinforcement and tokens are now given, including a new figure.
- The material on superstitious conditioning has been upgraded to a feature box, *Are We Less Superstitious Than Pigeons?*, and has been elaborated.
- Punishment is now referred to, more traditionally, as positive punishment and negative punishment (or response cost).
- The section on feedback has been expanded to include knowledge of results.
- The section on modeling in the media has been entirely revised, reflecting a growing awareness that violent media may not be as harmful as previously thought.

Chapter 7: Memory

- The opening section on stages of memory has been rewritten to make it easier to understand the Atkinson-Schiffirin model.
- The term *constructive processing* has been replaced by the term *elaborative processing* throughout the chapter and text to refer to the flexibility of long-term memory.
- The new glossary terms, *false memory* and *source confusion*, allow us to better describe a major downside of elaborative memory processing. In addition, *elaborative encoding* has been subsumed under the term *elaborative processing*.
- A new section, *From Encoding to Retrieval in Long-Term Memory*, clarifies the relationship between what is done at encoding and what might be retrieved.
- The section on photographic memory and eidetic imagery has been rewritten for greater clarity.

Chapter 8: Cognition, Language, Creativity, and Intelligence

- Because cognition and language are components of intelligence, they are now covered first, as reflected in the new chapter title.
- A distinction between experiential and reflective processing is introduced in the first section and woven throughout the chapter and elsewhere in the book.
- A new feature, *What’s North of My Fork?*, introduces the linguistic relativity hypothesis.
- The section on experts versus novices now includes reference to experiential processing in experts.
- The section “*Hot*” *Cognition* now includes a new feature on decision stress, “*Extra Hot, Decaf, Double-Shot...*”

- Material on causes of intellectual disability has been expanded.
- Material on artificial intelligence has been relocated to a later section on issues with the definition of intelligence and has been tightened up.

Chapter 9: Motivation and Emotion

- Material on pain has been relocated to the opening section as an example of an episodic, as opposed to the more typical homeostatic, drive.
- The motives of hunger and thirst are combined in a new section.
- Material on the sex drive has been integrated in a new section, *Sex—Mapping the Erogenous Zones*.
- Material on the need for achievement has been reworked and oriented around a new feature, *True Grit*.
- The opening section on emotions, *Inside an Emotion—Caught in That Feeling?*, has been rewritten. The phrase *primary emotions* has been replaced by the more current phrase *basic emotion* and more fully defined. Basic emotions are now linked more clearly to subcortical limbic structures and experiential processing.
- The discussion of lie detection now includes a discussion of the guilty knowledge test.
- Material on alexithymia now appears in the section *Gender and Emotion*.
- The effects of Botox are now discussed in the context of the facial feedback hypothesis.

Chapter 10: Personality

- Freudian slips are now identified as such and a cartoon has been added.
- Humanist theory is now treated before behavioral theory.
- The notion of biological predispositions is clarified. Trait theory and psychoanalytic theory are contrasted with learning theory and humanist approaches in their stress on personality consistencies as being due to genetic dispositions or situational determinants.
- A new section on positive personality traits has been added to the section *Humanistic Theory—Peak Experiences and Personal Growth*.
- The section *Traits and Situations* has been relabeled *Nature and Nurture* to better link up with use of these terms elsewhere in the book.
- The *Psychology in Action* section on shyness has been reorganized and rewritten for greater clarity.

Chapter 11: Health, Stress, and Coping

- Health statistics have been updated throughout the chapter.
- The opening section has been rewritten to immediately introduce the biopsychosocial model and contrast it with the medical model.
- The definition of health psychology has been broadened to include cognitive and behavioral factors.
- The concept of subjective well-being is now discussed in the section *The Whole Human: Subjective Well-Being*.
- Treatment of burnout in college has been expanded.
- A new feature on relative poverty, *So You Think You're Poor*, has been added.
- The treatment of depression has been restructured and now ends with a discussion of the college blues.
- A new section, *The Whole Human: Hardiness, Optimism, and Happiness*, has been added.
- The *Psychology in Action* section now includes a scorable *Undergraduate Stress Questionnaire*.

Chapter 12: Psychological Disorders

- A previous feature on Munchausen by proxy syndrome is now the chapter-opening vignette.
- The opening sections on mental illness in general have been streamlined.
- Material on psychology and the law has been expanded and now includes a discussion of the insanity defense.
- To eliminate confusion, the phrases *organic mental disorder* and *organic psychoses* are no longer stressed as they are not actual DSM-IV or DSM-5 categories.
- A new section on comorbidity has been added, including a distinction between primary and secondary problems.
- Material on the upcoming DSM-5 is now discussed in an expanded section.
- Possible DSM-5 changes in diagnostic categories and labels are identified throughout the chapter.
- Material on psychiatric labeling and stigmatization is now covered before discussions of specific diagnoses.
- Schizophrenia and dissociative identity disorder are more clearly distinguished.
- A section on undifferentiated schizophrenia has been added.

Chapter 13: Therapies

- The chapter now begins with a brief history of therapy, starting with demonology and ending with psychoanalysis.
- Humanistic and cognitive therapies are now covered in successive sections and treated as two contrasting types of “talk” therapies.
- A new section on cognitive behavior therapy has been added.
- The two successive sections on behavior therapies are now more clearly identified as based on classical and operant conditioning principles, respectively.
- The section on medical therapies has been updated. Pharmaceutical action is now linked to major neurotransmitter systems.
- Deep brain stimulation is now identified as such.
- A section labeled *The Future of Therapy—Back to the Future* examines the future of therapy. It includes a new section on *transcranial magnetic stimulation* and positions both group therapies and Internet therapy as the future of psychotherapy.
- The section on therapy at a distance has been updated.

Chapter 14: Social Behavior

- A new chapter-opening vignette and photo have been created.
- Although overall chapter coverage has not shifted dramatically, the chapter organization has.
- The opening section is now on groups.
- A new cluster of social comparison, attribution, and attitudes, collected as examples of social cognition, follows.
- The social influence topics are now covered following coverage of social cognition.
- A new cluster of prosocial behavior topics now includes affiliation, attraction, and helping behavior.
- A new cluster of antisocial behavior includes aggression, prejudice, and intergroup conflict, including a new section on bullying.
- Solitude is distinguished from loneliness.
- Zimbardo’s famous prison experiment is now discussed.
- The material on aggression and media violence has been updated.
- The authoritarian personality is more fully described.

Appendix 1: Behavioral Statistics

- A new opening vignette follows a student grappling with statistics. The vignette is woven throughout the appendix. The result is a more engaging approach to traditionally dry material. A new cartoon is intended to reinforce the new tone of the appendix.

Appendix 2: Life After School

- This new appendix briefly invites students to think about life after school.
- The opening section, *It's Off to Work We Go—Hi Ho, Hi Ho*, is aimed primarily at students not pursuing a career in psychology. It urges students to take a *skills orientation* toward what they have learned from psychology.
- Skills students learn are grouped into five categories: study skills, research skills, critical thinking skills, cultural awareness skills, and personal skills.
- The next section, *Careers in Psychology—Are You Reading My Mind?*, is aimed primarily at students looking for a psychology career. The rich variety of the field of psychology is surveyed.
- The final section briefly surveys six other applied fields of psychology: I/O (industrial/organizational) psychology, environmental psychology, educational psychology, psychology and the law, sports psychology, and human factors psychology.

A Complete Course—Teaching and Learning Supplements

The fifth edition of *Psychology: A Journey* is supported by a rich array of learning and teaching supplements, ranging from a traditional study guide and instructor's manual to electronic resources such as a test bank and access to a variety of web-based materials. These supplements are designed to make teaching and learning more effective. Many are available free to professors or students. Others can be packaged with this text at a discount.

Student Support Materials

Introductory students must learn a multitude of abstract concepts, which can make a first course in psychology difficult. The materials listed here will greatly improve students' chances for success.

Further Readings to Accompany Journey: An Introduction

Each selection in this booklet explores a given topic such as “How do concerns about self presentation affect behavior?” and then comes to a set of practical conclusions about the issue. Issues range from the effect of culture on counseling and psychotherapy, the role of touching in personal relationships, how biology influences learning, and more (ISBN: 0-495-01691-8).

Careers in Psychology: Opportunities in a Changing World, 4e

This informative booklet, written by Tara L. Kuther, is a Wadsworth exclusive. The pamphlet describes the field of psychology, as well as how to prepare for a career in psychology. Career options and resources are also discussed. *Careers in Psychology* can be packaged with this text at no additional cost to students (ISBN 1-133-04967-2).

Sniffy™ the Virtual Rat, Lite Version 3.0

There's no better way to master the basic principles of learning than working with a real laboratory rat. However, this is usually impractical in introductory psychology courses. *Sniffy the Virtual Rat* offers a fun, interactive alternative to working with lab animals. This innovative and entertaining software teaches students about operant and classical

conditioning by allowing them to condition a virtual rat. Users begin by training Sniffy to press a bar to obtain food. Then they progress to studying the effects of reinforcement schedules and simple classical conditioning. In addition, special “Mind Windows” enable students to visualize how Sniffy’s experiences in the Skinner box produce learning. The Sniffy CD-ROM includes a Lab Manual that shows students how to set up various operant and classical conditioning experiments. *Sniffy™ the Virtual Rat, Lite Version 3.0* may be packaged with this text for a discount (ISBN: 1-111-72617-5)

Online Resources

The Internet is providing new ways to exchange information and enhance education. In psychology, Wadsworth is at the forefront in making use of this exciting technology.

CourseMate



Cengage Learning’s Psychology CourseMate brings course concepts to life with interactive learning, study, and exam preparation tools that support the printed textbook. Access an integrated eBook, learning tools including glossaries, flashcards, quizzes, videos, Virtual Psychology Labs, and more in your Psychology CourseMate. Go to CengageBrain.com to register or purchase access.

WebTutor



Jump-start your course with customizable, rich, text-specific content within your Course Management System. Whether you want to Web-enable your class or put an entire course online, WebTutor™ delivers. WebTutor offers a wide array of resources including access to the eBook, glossaries, flashcards, quizzes, videos, Virtual Psychology Labs, and more.

Aplia



Aplia helps students understand Psychology as a science through fresh and compelling content, brief engagement activities that illustrate key concepts, and thought-provoking questions.

- Engagement activities pique student interest and motivate students to learn about a concept. Short experiments, videos, and surveys provide a range of experiential learning opportunities.
- Questions about real-world situations hone students’ critical thinking skills.
- Auto-assigned, auto-graded assignments hold students accountable for the material before they come to class, increasing their effort and preparation.
- Immediate, detailed explanations for every answer enhance student comprehension.
- Gradebook Analytics allow instructors to monitor and address performance on a student-by-student and topic-by-topic basis.

Essential Teaching Resources

As every professor knows, teaching an introductory psychology course is a tremendous amount of work. The supplements listed here should not only make life easier for you, they should also make it possible for you to concentrate on the more creative and rewarding facets of teaching.

Instructor's Resource Manual

The *Instructor's Manual*, by Kelly Bouas Henry, Missouri Western State University, and John Mitterer, Brock University, contains resources designed to streamline and maximize the effectiveness of your course preparation. This IRM is a treasure trove of resources; each chapter includes learning objectives, discussion questions, lecture enhancements, role-playing scenarios, “one-minute motivators,” broadening-our-cultural-horizons exercises, journal questions, suggestions for further reading, media suggestions, web links, and handouts. (ISBN: 1-285-19262-1).

Test Bank

The *Test Bank* was prepared by Jeannette Murphey of Meridian Community College. It includes more than 4,500 multiple-choice questions organized by chapter and by learning objectives. All items, which are classified as factual, conceptual, or applied, include correct answers and page references from the text. All questions new to this edition are identified by an asterisk (ISBN: 1-285-19260-5).

WebTutor™



Jumpstart your course with customizable, rich, text-specific content within your Course Management System. Whether you want to Web-enable your class or put an entire course online, WebTutor™ delivers. WebTutor offers a wide array of resources including access to the eBook, glossaries, flashcards, quizzes, videos, and more.

PowerLecture with ExamView for *Psychology: A Journey 5e*

This one-stop digital library and presentation tool includes preassembled Microsoft® PowerPoint® lecture slides. In addition to the full Instructor's Resource Manual and Test Bank, the PowerLecture also includes ExamView® testing software with all the test items from the printed Test Bank in electronic format, enabling you to create customized tests in print or online. With PowerLecture, you'll find all of your video and media resources in one place, including an image library with graphics from the book itself (ISBN: 1-285-09137-X).

Supplementary Books

No text can cover all of the topics that might be included in an introductory psychology course. If you would like to enrich your course, or make it more challenging, the Wadsworth titles listed here may be of interest.

Challenging Your Preconceptions: Thinking Critically about Psychology, Second Edition

This paperbound book (ISBN: 0-534-26739-4), written by Randolph Smith, helps students strengthen their critical-thinking skills. Psychological issues such as hypnosis and repressed memory, statistical seduction, the validity of pop psychology, and other topics are used to illustrate the principles of critical thinking.

Writing Papers in Psychology, 9e

The ninth edition of *Writing Papers in Psychology, 9e* (ISBN: 1-111-72613-2), by Ralph L. Rosnow and Mimi Rosnow, is a valuable “how to” manual for writing term papers and research reports. This new edition has been updated to reflect the latest APA guidelines. The book covers each task with examples, hints, and two complete writing samples. Citation ethics, how to locate information, and new research technologies are also covered.

Cross-Cultural Perspectives in Psychology

How well do the concepts of psychology apply to various cultures? What can we learn about human behavior from cultures different from our own? These questions lie behind a collection of original articles written by William F. Price and Rich Crapo. The fourth edition of *Cross-Cultural Perspectives in Psychology* (ISBN: 0-534-54653-6) contains articles on North American ethnic groups as well as cultures from around the world.

Summary

We sincerely hope that both teachers and students will consider this book and its supporting materials a refreshing change from the ordinary. Creating it has been quite an adventure. In the pages that follow, we believe students will find an attractive blend of the theoretical and the practical, plus many of the most exciting ideas in psychology. Most of all, we hope that students using this book will discover that reading a college textbook can be entertaining and enjoyable.

Acknowledgments

Psychology is a cooperative effort requiring the talents and energies of a large community of scholars, teachers, researchers, and students. Like most endeavors in psychology, this book reflects the efforts of many people. We deeply appreciate the contributions of all those who have supported this text's evolution, including the following psychologists:

Linda Amos, Altamaha Technical College
Edward Fernandes, Barton College
Danielle D. Gagne, Alfred University
Ann Higgs, Marist College
Angela Lipsitz, Northern Kentucky University
Daniel McConnell, University of Central Florida
Jack Palmer, University of Louisiana at Monroe
Sandy Phipps, Hazard Community & Technical College
James Previte, Victor Valley College
Tommy Turner, Snead State Community College
Dawn Wright, Meridian Community College

We especially wish to thank the following professors, whose sage advice helped improve the fourth and third editions of *Psychology: A Journey*:

Fourth Edition:

Jean Brown, Cambrian College
Anice Bullock, Tomball College
Lisa Clark, Clark Atlanta University
Eric Comstock, Heald College, Concord
David Das, Elgin Community College
Michael Gardner, California State University, Northridge
Dorothy Gomez, Bunker Hill Community College
Frank Hager, Allegany College of Maryland
John Haworth, Florida Community College at Jacksonville
John S. Klein, Castleton State College
Patricia Lanzon, Henry Ford Community College
Denis Laplante, Lambton College
Laura Madson, New Mexico State University
Errol Magidson, Richard J. Daley College

Horace Marchant, Westfield State College
Richard Mascolo, El Camino Community College
Shawn Mikulay, Elgin Community College
Pike Nelson, Chicago State University
Alysia Ritter, Murray State University
Moises Salinas, Central Connecticut State University
Matthew Westra, Longview Community College

Third Edition:

Dana Albright, Clovis Community College
Saundra Ciccarelli, Gulf Coast Community College
Ellen Cotter, Georgia Southwestern State University
Keith Davis, University of South Carolina
Mary Ellen Dello Stritto, Ball State University
Mylo Egipciano, Los Angeles Pierce College
Richard Epro, Nassau County Community College
Sabra Jacobs, Prestonsburg Community College
Thuy Karafa, Ferris State University
Jimi Leopold, Tarleton State University
Feleccia Moore-Davis, Houston Community College
Todd Nelson, California State University, Stanislaus
Randall Osborne, Southwest Texas State University
Sandra Phipps, Hazard Community College
Robert Wellman, Fitchburg State College
Matthew Zagumny, Tennessee Tech University

Producing *Psychology: A Journey* and its supplements was a formidable task. We are especially indebted to each of the following individuals for supporting this book:

Sean Wakely
Michelle Julet

We also wish to thank the individuals at Cengage who so generously shared their knowledge and talents over the past year. These are the people who made it happen:

Vernon Boes
Jessica Egbert
Jennifer Risdien
Jeremy Judson
Jessica Alderman
Mary Noel
Pat Waldo

We would especially like to express our deepest gratitude to our Editor-in-Chief, Linda Schreiber-Ganster, who has actively supported our efforts, and our Publisher Jon-David Hague for helping us define a new vision for *Journey* and make this book the best it can possibly be. Their guidance will make life easier for professors and students who use this book. We also owe a debt to Jeremy Judson, whose able assistance and wonderful friendship has been utterly invaluable. Nicolas Albert and Shannon LeMay-Finn pushed us along our schedules with aplomb and much thoughtful feedback. Kate Mannix, Kelly Henry, Jeannette Murphey, Janell Gibson, Roman Barnes, Vernon Boes, Jessica Alderman, and Jessica Egbert have all made important contributions.

At home, Barbara Kushmier and Kayleigh Hagerman helped with several aspects of the preparation of this book. Last of all, we would like to thank our wives, Sevren and Heather, for making the journey worthwhile.

Journey Theme *It is possible to study more efficiently and effectively by being a reflective learner who engages in active processing.*



Introduction

The Psychology of Studying— Reflective Learning

Journey into Psychology: Well, Hi There!

You're actually reading this! As your authors, we're glad (honest!). Too often, students just jump in and plough through a textbook from the first assigned chapter to the last. That's a shame because it's far better to study a textbook, not just read it. Think about it: How much do you typically remember after you've read straight through a whole chapter? If the answer is "nada," "zilch," or simply "not enough," it may be because *reading* is not the same as *studying*. Even if you're an excellent student, you may be able to improve your study skills. Students who get good grades tend to work smarter, not just longer or harder. They also tend to understand and remember more of what they've learned long after their exams are over. Psychology is for their lives, not just for their exams. To help you get a good start, let's look at several ways to improve studying.

Journey Questions

- I.1 What is the best way to read a textbook?
- I.2 How can learning in class be improved?
- I.3 What is the best way to study?
- I.4 What is self-regulated learning?
- I.5 How can procrastination be overcome?
- I.6 What are some ways to be a more effective test-taker?
- I.7 Can digital media help with reflective processing?

Reflective Reading—How to Tame a Textbook

JOURNEY QUESTION 1.1 *What is the best way to read a textbook?*

What's the difference between reading a textbook and studying it? You have undoubtedly spent the occasional evening “vegging out” in front of the television. Although it was likely great fun, you may have noticed that you didn't think hard about what you were watching and that your subsequent memories are not very detailed. You were engaging in **experiential processing**, more or less passively, effortlessly, and automatically soaking up the experience (Kahneman, 2011; Norman, 1993). There is usually nothing wrong with experiential processing; we humans rely on it frequently. As we will see in later chapters of this book, most perception, as well as some learning, intuition, and creativity, depend in part on experiential processing.

Even though experiential processing is appropriate for entertainment, it doesn't work as well if your goal is to learn while reading a textbook. To see why this might be the case, think back to, say, a recent job interview. It is highly unlikely that you got through the interview by relying on experiential processing alone (and even less likely that you landed the job if you did). Instead you actively and carefully listened to the questions and put some serious effort into thinking through the implications of answering in different ways before responding. No drifting off here; you were focused and controlled until you left the interview, when you likely breathed a much-deserved sigh of relief.

By reacting “mindfully” (Siegel, 2007), you engaged in **reflective processing** (Kahneman, 2011; Norman, 1993). Rather than just having an experience, you *actively thought* about it. Reflective processing is involved whenever experiential processing is not enough, and you need to more actively and effortfully control your thoughts to focus on the matter at hand.

Similarly, you will learn more from a textbook if you mindfully reflect on what you read. Reflective processing can help you better understand and remember details about an experience in the future. (In memory terms, the consequence of reflective processing is called *elaborative processing*, which you will learn more about in Chapter 7.)

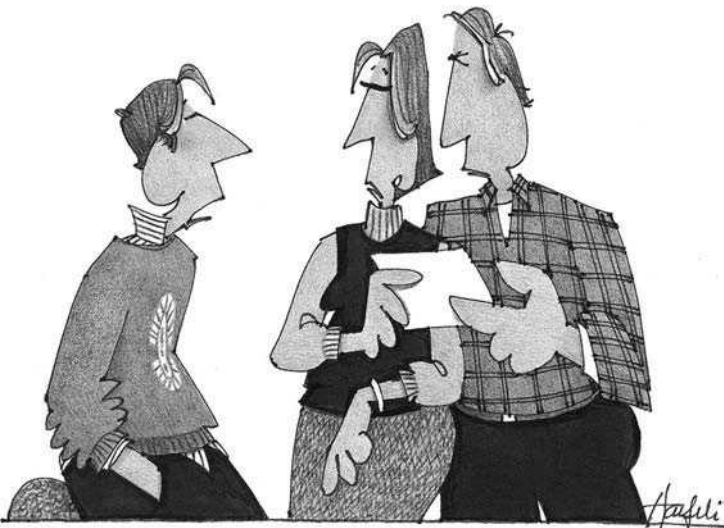
How can I be more reflective while reading? One powerful way to be more reflective is through **self-reference**. As you read, you should relate new facts, terms, and concepts to your own experiences and information you already know well. Doing this will make new ideas more personally meaningful and easier to remember. Critical thinking is another powerful way to be more reflective. **Critical thinkers** pause to evaluate, compare, analyze, critique, and synthesize what they are reading (Chaffee, 2012). You should, too. In Chapter 1, we will learn how to think critically about psychology.

These ways to improve learning can be combined into the **reflective SQ4R method**. SQ4R stands for *survey, question, read, recite, reflect, and review*. These six steps can help you study more effectively:

S = Survey. Skim through a chapter before you begin reading it. Start by looking at topic headings, figure captions, and summaries. Try to get an overall picture of what lies ahead. Because this book is organized into short sections, you can survey just one section at a time if you prefer.

Q = Question. As you read, turn each topic heading into one or more questions. For example, when you read the heading “Stages of Sleep” you might ask, “Is there more than one stage of sleep?” “What are the stages of sleep?” “How do they differ?” Asking questions prepares you to read with a purpose.

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"I'm too busy going to college to study."

Experiential processing Thought that is passive, effortless, and automatic.

Reflective processing Thought that is active, effortful, and controlled.

Self-reference The practice of relating new information to prior life experience.

Critical thinking An ability to evaluate, compare, analyze, critique, and synthesize information.

reflective SQ4R method An active study-reading technique based on these steps: survey, question, read, recite, reflect, and review.

R1 = Read. The first *R* in SQ4R stands for *read*. As you read, look for answers to the questions you asked. Read in short “bites” from one topic heading to the next, then stop. For difficult material you may want to read only a paragraph or two at a time.

R2 = Recite. After reading a small amount, you should pause and recite or rehearse. Try to mentally answer your questions. Also, summarize what you just read in brief notes. Making notes will reveal what you do and don’t know, so you can fill in gaps in your knowledge (Pevery et al., 2003).

If you can’t summarize the main ideas, skim over each section again. Until you can understand and remember what you just read, there’s little point to reading more. After you’ve studied a short bite of text, turn the next topic heading into questions. Then read to the following heading. Remember to look for answers as you read and to recite or take notes before moving on. Ask yourself repeatedly, “What is the main idea here?” Repeat the question-read-recite cycle until you’ve finished an entire chapter (or just from one *Study Break* to the next, if you want to read shorter units).

R3 = Reflect. As you read, reflect on what you are reading. As stated earlier, two powerful ways to do this are self-reference and critical thinking. This is the most important step in the reflective SQ4R method. The more mindfulness and genuine interest you can bring to your reading, the more you will learn (Hartlep & Forsyth, 2000; Van Blerkom, 2012).

R4 = Review. When you’re done reading, skim back over a section or the entire chapter, or read your notes. Then check your memory by reciting and quizzing yourself again. Try to make frequent, active review a standard part of your study habits (see **Figure 1.1**).

Does this really work? You bet! Using a reflective reading strategy improves learning and course grades (Taraban, Rynearson, & Kerr, 2000). It also results in enhanced long-term understanding. Simply reading straight through a chapter can give you “intellectual indigestion.” That’s why it’s better to stop often to survey, question, recite, reflect, review, and “digest” information as you read.

How to Use *Psychology: A Journey*

You can apply the reflective SQ4R method to any text. However, we have specifically designed this textbook to help you actively learn psychology. In fact, this Introduction has been designed just like the rest of the book. Please consider trying out the following suggestions as you work through this section:

Survey

Each chapter opens with a chapter survey that includes a *Journey Theme*, a list of *Journey Questions*, and a short opening story introducing what will be covered. You can use these features to identify important ideas as you begin reading. The short opening story should help you get interested in the topics you will be reading about. The *Journey Theme* and *Journey Questions* are good guides to the kinds of information to look for as you read. In fact, answers to the *Journey Questions* are a good summary of the core concepts in each chapter. If, years from now, you still remember those *Journey* concepts, your authors will be very happy indeed. Anyway, after you’ve studied the *Journey Questions*, take a few minutes to do your own survey of the chapter, including the figure captions and chapter-ending material. You should also notice that most major chapter headings are accompanied by a *Journey Question*. Taken together, this will help you build a “mental map” of upcoming topics.

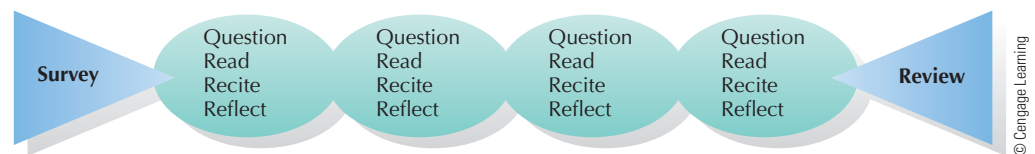


Figure 1.1 The reflective SQ4R method promotes active learning and information processing. You should begin with a survey of the chapter or section, depending on how much you plan to read. Then you should proceed through cycles of questioning, reading, reciting, and reflecting, and conclude with a review of the section or the entire chapter.

Question

How can I use the reflective SQ4R method to make reading more interesting and effective? Try to actively interact with your textbooks as you read. Perhaps the most important way to do this is to ask yourself a lot of questions as you read. For example, as noted earlier, major chapter sections begin with headings; try turning them into questions. One Chapter 1 heading is “Critical Thinking—Take It with a Grain of Salt.” Turn this into a question that occurs to you, such as “Why should I be skeptical of what I read?” If you read to answer your questions, you will be much more likely to “get” the key points in what you are reading. *Dialogue Questions* like the one that began this paragraph will also help you focus on seeking information as you read. These questions are very much like those running through the minds of students like you as they read this book. Similarly, the *Journey Questions* are repeated throughout each chapter to help you recognize key topics. Try to anticipate these questions. Even better, be sure to ask your own questions.

Read

As an aid to reading, important terms are printed in **boldface type** and defined when they first appear. (Some are followed by pronunciations—capital letters show which syllables are accented.) You’ll also find a *running glossary* in the lower corner of pages you are reading so you never have to guess about the meaning of technical terms. If you want to look up a term from a lecture or another chapter, check the main *Subject Index/Glossary*. This “mini-dictionary” is located near the end of the book. Perhaps you should take a moment to find it now. In addition, many figures and tables will help you quickly grasp important concepts.

Recite and Reflect

To help you study in smaller bites, this book is divided into short sections that end with a study guide called a *Study Break*. By answering the *Recite* questions in the Study Break you can check how well you remember what you just read. In addition, *Think Critically* questions invite you to reflect more deeply about the how’s and why’s of what you have just read, and *Self-Reflect* questions invite self-reference to help you connect new ideas to your own life. (Don’t forget to also take notes and recite and reflect on your own.)

This book also provides other opportunities for you to reflect on what you are reading. Each chapter ends with a *Psychology in Action* section. These discussions are filled with practical ideas you can relate to your own life. In many chapters, *Discovering Psychology* boxes also invite you to relate psychology to your own behavior. *Critical Thinking* boxes present intriguing questions you can use to sharpen your critical thinking skills. In addition, *Human Diversity* boxes encourage you to reflect on the rich variability of human experience; *Brainwaves* boxes show how the brain relates to psychology; and *The Clinical File* boxes show how psychology can be applied to treat clinical problems.

Review

Each chapter concludes with a detailed *Chapter in Review*. To help you identify key ideas to remember, the *Journey Questions* are restated, along with point-by-point answers, which are summaries of psychology’s “big ideas” and enduring principles.

Each Chapter in Review also includes a brief quiz called *Test Your Knowledge*. You can use this quiz to get a preliminary idea about how well you remember ideas and concepts from your reading. But don’t stop studying just because you do well on one of these quizzes. Additional review and practice will add greatly to your understanding—not to mention your test scores.

The first time you finish a chapter, don’t feel obligated to memorize the *Journey* concepts. However, be sure to take a moment to think about them. Ultimately, they will provide a good, high-level summary of what you learned in this course. By making these ideas your own, you will gain something of lasting value: You will learn to see human behavior as psychologists do.

Table I.1 summarizes how this text helps you apply the reflective SQ4R method. Even with all this help, there is still much more you can do on your own.

Reflective Note-Taking—LISAN Up!

JOURNEY QUESTION 1.2 *How can learning in class be improved?*

Is it possible to be more reflective about taking notes in class? Sometimes it's hard to know what's important. Just as studying a textbook is best done reflectively, so too is learning in class (Norman, 1994). Like effective reading, good notes come from actively seeking information. People who are **active listeners** avoid distractions and skillfully gather ideas. Here's a listening/note-taking plan that works for many students. The letters LISAN, pronounced like the word *listen*, will help you remember the steps:

L = *Lead. Don't follow.* Read assigned materials before coming to class. Try to anticipate what your teacher will say by asking yourself questions. If your teacher provides course notes or PowerPoint® overheads before lectures, survey them before coming to class. Reflective questions can come from those materials or from study guides, reading assignments, or your own curiosity.

I = *Ideas.* Every lecture is based on a core of ideas. Usually, an idea is followed by examples or explanations. Ask yourself often, "What is the main idea now? What ideas support it?"

S = *Signal words.* Listen for words that tell you what direction the instructor is taking. For instance, here are some signal words:

<i>There are three reasons why . . .</i>	Here come ideas
<i>Most important is . . .</i>	Main idea
<i>On the contrary . . .</i>	Opposite idea
<i>As an example . . .</i>	Support for main idea
<i>Therefore . . .</i>	Conclusion

A = *Actively listen.* Sit where you can get involved and ask questions. Bring questions you want answered from the last lecture or from your text. Raise your hand at the beginning of class or approach your professor before the lecture. Do anything that helps you stay active, alert, and engaged.

N = *Note taking.* Students who take accurate lecture notes tend to do well on tests (Williams & Eggert, 2002). However, don't try to be a tape recorder. Listen to everything, but be selective and write down only key points. If you are too busy writing, you may not grasp what your professor is saying. When you're taking notes, it might help to think of yourself as a reporter who is trying to get a good story (Ryan, 2001; Wong, 2012).

Actually, most students take reasonably good notes—and then don't use them! Many students wait until just before exams to review. By then, their notes have lost much of their meaning. If you don't want your notes to seem like "chicken scratches," it pays to review them daily (Ellis, 2013).

Using and Reviewing Your Notes

When you review, you will learn more if you take the extra steps listed here (Burka & Yuen, 2008; Ellis, 2013; Santrock & Halonen, 2013):

- As soon as you can, reflect on your notes to fill in gaps, complete thoughts, and look for connections among ideas.
- Remember to link new ideas to what you already know.
- Summarize your notes. Boil them down and *organize* them.
- After each class session, write down several major ideas, definitions, or details that are likely to become test questions. Then make up questions from your notes and be sure you can answer them.

Active listener A person who knows how to maintain attention, avoid distractions, and actively gather information from lectures.

Table I.1 Using the Reflective SQ4R Method

SURVEY	REFLECT
Journey Theme	Think Critically Questions (in <i>Study Breaks</i>)
Chapter-Opening Story	Self-Reflect Questions (in <i>Study Breaks</i>)
Journey Questions	Psychology in Action Sections (throughout the text)
Topic Headings	Boxed Highlights (throughout the text)
Figure Captions	
QUESTION	REVIEW
Topic Headings	Chapter in Review
Journey Questions	Test Your Knowledge
In-Text Dialogue Questions	Boldface Terms
	Running Glossary (in margin)
	Figures and Tables
READ	Practice Quizzes (online)
Boldface Terms	Study Guide
Running Glossary (in margin)	
Figures and Tables	
RECITE	
Recite Questions (in <i>Study Breaks</i>)	
Practice Quizzes (online)	
Notes (make them while reading)	

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Summary

The letters LISAN are a guide to active listening, but listening and good note taking are not enough. You must also review, organize, reflect, extend, and think about new ideas. Use active listening to get involved in your classes and you will undoubtedly learn more (Van Blerkom, 2012).

Reflective Study Strategies—Making a Habit of Success

JOURNEY QUESTION I.3 *What is the best way to study?*

Grades depend as much on effort as they do on “intelligence.” However, don’t forget that good students work more *efficiently*, not just harder. Many study practices are notoriously unreflective, such as recopying lecture notes, studying class notes but not the textbook (or the textbook but not class notes), outlining chapters, answering study questions with the book open, and “group study” (which often becomes a party). The best students emphasize *quality*: They study their books and notes in depth and attend classes regularly. It’s a mistake to blame poor grades on events “beyond your control.” Students who are motivated to succeed usually get better grades (Perry et al., 2001). Let’s consider a few more things you can do to improve your study habits.

Study in a Specific Place

Ideally, you should study in a quiet, well-lit area free of distractions. If possible, you should also have at least one place where you *only study*. Do nothing else there: Keep magazines, MP3 players, friends, cell phones, pets, Twitter®, video games, puzzles, food, lovers, sports

cars, elephants, pianos, televisions, Facebook®, and other distractions out of the area. In this way, the habit of studying will become strongly linked with one specific place. Then, rather than trying to force yourself to study, all you have to do is go to your study area. Once there, you'll find it is relatively easy to get started.

Use Spaced Study Sessions

It is reasonable to review intensely before an exam. However, you're taking a big risk if you are only "cramming" (learning new information at the last minute). Spaced practice is much more efficient (Anderson, 2010a). **Spaced practice** consists of a large number of relatively short study sessions. Long, uninterrupted study sessions are called **massed practice**. (If you "massed up" your studying, you probably messed it up too.)

Cramming places a big burden on memory. Usually, you shouldn't try to learn anything new about a subject during the last day before a test. It is far better to learn small amounts every day and review frequently.

Try Mnemonics

Learning has to start somewhere, and memorizing is often the first step. Many of the best ways to improve memory are covered in Chapter 7, especially the last few sections. Let's consider just one type of technique here.

A **mnemonic** (nee-MON-ik) is a memory aid. There are many ways to create mnemonics. Most mnemonics link new information to ideas or images that are easy to remember. For example, what if you want to remember that the Spanish word for duck is *pato* (pronounced POT-oh)? To use a mnemonic, you could picture a duck in a pot or a duck wearing a pot for a hat. Likewise, to remember that the cerebellum controls coordination, you might picture someone named "Sarah Bellum" who is very coordinated. For best results, make your mnemonic images exaggerated or bizarre, vivid, and interactive (Macklin & McDaniel, 2005; Radvansky, 2011).

Test Yourself

A great way to improve grades is to take practice tests before the real one in class (Karpicke & Blunt, 2011). In other words, reflective studying should include **self-testing**, in which you pose questions to yourself. You can use flash cards, *Study Break* Recite, Think Critically, and Self-Reflect questions, end-of-chapter Test Your Knowledge questions, online quizzes, a study guide, or other means. As you study, ask many questions and be sure you can answer them. Studying without self-testing is like practicing for a basketball game without shooting any baskets.

For more convenient self-testing, your professor may make a *Study Guide* or a separate booklet of *Practice Quizzes* available. You can use either to review for tests. Practice quizzes are also available on the *Psychology CourseMate* website, as described later. However, don't use practice quizzes as a substitute for studying your textbook and lecture notes. Trying to learn from quizzes alone will probably *lower* your grades. It is best to use quizzes to find out what topics you need to study more (Brothen & Wambach, 2001).

Overlearn

Many students *underprepare* for exams, and most *overestimate* how well they will do. A solution to both problems is **overlearning**, in which you continue studying beyond your initial mastery of a topic. In other words, plan to do extra study and review *after* you think you are prepared for a test. One way to overlearn is to approach all tests as if they will be essays. That way, you will learn more completely, so you really "know your stuff."



Mnemonics make new information more familiar and memorable. Forming an image of a duck wearing a pot for a hat might help you remember that *pato* is the Spanish word for duck.

Spaced practice Practice spread over many relatively short study sessions.

Massed practice Practice done in a long, uninterrupted study session.

Mnemonic A memory aid or strategy.

Self-testing Evaluating learning by posing questions to yourself.

Overlearning Continuing to study and learn after you think you've mastered a topic.

Self-Regulated Learning—Academic All-Stars

JOURNEY QUESTION 1.4 *What is self-regulated learning?*

Think of a topic you are highly interested in, such as music, sports, fashion, cars, cooking, politics, or movies. Whatever the topic, you have probably learned a lot about it—painlessly. How could you make your college work more like voluntary learning? An approach called self-regulated learning might be a good start. **Self-regulated learning** is deliberately reflective and actively self-guided study (Hofer & Yu, 2003; Kaplan, 2008). Here's how you can change passive studying into reflective, goal-oriented learning:

1. *Set specific, objective learning goals.* Try to begin each learning session with specific goals in mind. What knowledge or skills are you trying to master? What do you hope to accomplish (Burka & Yuen, 2008)?
2. *Plan a learning strategy.* How will you accomplish your goals? Make daily, weekly, and monthly plans for learning. Then put them into action.
3. *Be your own teacher.* Effective learners silently give themselves guidance and ask themselves questions. For example, as you are learning, you might ask yourself, “What are the important ideas here? What do I remember? What don't I understand? What do I need to review? What should I do next?”
4. *Monitor your progress.* Self-regulated learning depends on self-monitoring. Exceptional learners keep records of their progress toward learning goals (pages read, hours of studying, assignments completed, and so forth). They quiz themselves, use study guides, make sure they follow the reflective SQ4R system, and find other ways to check their understanding while learning.
5. *Reward yourself.* When you meet your daily, weekly, or monthly goals, reward your efforts in some way, such as going to a movie or downloading some new music. Be aware that self-praise also rewards learning. Being able to say, “Hey, I did it!” or “Good work!” and knowing that you deserve it can be very rewarding. In the long run, success, self-improvement, and personal satisfaction are the real payoffs for learning.
6. *Evaluate your progress and goals.* It is a good idea to frequently evaluate your performance records and goals. Are there specific areas of your work that need improvement? If you are not making good progress toward long-range goals, do you need to revise your short-term targets?
7. *Take corrective action.* If you fall short of your goals, you may need to adjust how you budget your time. You may also need to change your learning environment to deal with distractions such as watching television, daydreaming, talking to friends, or testing the limits of your hearing with your iPod.

If you discover that you lack necessary knowledge or skills, ask for help, take advantage of tutoring programs, or look for information beyond your courses and textbooks. Knowing how to regulate and control learning can be a key to life-long enrichment and personal empowerment (Van Blerkom, 2012).

Procrastination—Avoiding the Last-Minute Blues

JOURNEY QUESTION 1.5 *How can procrastination be overcome?*

All these study techniques are fine. But what can I do about procrastination? A tendency to procrastinate is almost universal. (When campus workshops on procrastination are offered, many students never get around to signing up!) Even when procrastination doesn't lead to failure, it can cause much suffering (Wohl, Pychyl, & Bennett, 2010). Procrastinators work only under pressure, skip classes, give false reasons for late work, and feel

Self-regulated learning Deliberately reflective and active self-guided study.

ashamed of their last-minute efforts. They also tend to feel frustrated, bored, and guilty more often (Blunt & Pychyl, 2005).

Why do so many students procrastinate? Many students equate grades with their *personal worth*. That is, they act as if grades tell whether they are good, smart people who will succeed in life. By procrastinating they can blame poor work on a late start, rather than a lack of ability (Beck, Koons, & Milgrim, 2000). After all, it wasn't their best effort, was it? Perfectionism is a related problem. If you expect the impossible, it's hard to start an assignment. Students with high standards often end up with all-or-nothing work habits (Onwuegbuzie, 2000).

Time Management

Most procrastinators must eventually face the self-worth issue. Nevertheless, most can improve by learning study skills and better time management. We have already discussed general study skills, so let's consider time management in a little more detail.

A **weekly time schedule** is a written plan that allocates time for study, work, and leisure activities. To prepare your schedule, make a chart showing all the hours in each day of the week. Then fill in times that are already committed: sleep, meals, classes, work, team practices, lessons, appointments, and so forth. Next, fill in times when you will study for various classes. Finally, label the remaining hours as open or free times.

Each day, you can use your schedule as a checklist. That way you'll know at a glance which tasks are done and which still need attention (Burka & Yuen, 2008).

You may also find it valuable to make a **term schedule** that lists the dates of all quizzes, tests, reports, papers, and other major assignments for each class.

The beauty of sticking to a schedule is that you know you are making an honest effort. It will also help you avoid feeling bored while you are working or guilty when you play.

Be sure to treat your study times as serious commitments, but respect your free times, too. And remember, students who study hard and practice time management *do* get better grades (Rau & Durand, 2000).

Goal Setting

As mentioned earlier, students who are reflective, active learners set **specific goals** for studying. Such goals should be clear-cut and measurable (Burka & Yuen, 2008). If you find it hard to stay motivated, try setting goals for the semester, the week, the day, and even for single study sessions. Also, be aware that more effort early in a course can greatly reduce the "pain" and stress you will experience later. If your professors don't give frequent assignments, set your own day-by-day goals. That way, you can turn big assignments into a series of smaller tasks that you can actually complete (Ariely & Wertenbroch, 2002). An example would be reading, studying, and reviewing 8 pages a day to complete a 40-page chapter in 5 days. For this textbook, reading from one *Study Break* to the next each day might be a good pace. Remember, many small steps can add up to an impressive journey.

Make Learning an Adventure

A final point to remember is that you are most likely to procrastinate if you think a task will be unpleasant (Pychyl et al., 2000). Learning can be hard work. Nevertheless, many students find ways to make schoolwork interesting and enjoyable. Try to approach your schoolwork as if it were a game, a sport, an adventure, or simply a way to become a better person. The best educational experiences are challenging, yet fun (Ferrari & Scher, 2000; Santrock & Halonen, 2013).

Virtually every topic is interesting to someone, somewhere. You may not be particularly interested in the sex life of South American tree frogs. However, a biologist might be fascinated. (Another tree frog might be, too.) If you wait for teachers to "make" their courses interesting, you are missing the point. Interest is a matter of *your attitude*. (See **Figure I.2** for a summary of study skills.)

Weekly time schedule A written plan that allocates time for study, work, and leisure activities during a one-week period.

Term schedule A written plan that lists the dates of all major assignments for each of your classes for an entire semester or quarter.

Specific goal A goal with a clearly defined and measurable outcome.