



HOW TO STUDY IN COLLEGE

WALTER PAUK
ROSS J. Q. OWENS

Eighth
Edition

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How to Study in College

EIGHTH EDITION

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To the Instructor of the Eighth Edition

Students who are seeking help are not primarily interested in theory, and most of them have little patience with merely inspirational talk. They want practical instruction on how to succeed academically. They want something that they can readily understand and apply and that works. After a week of classes, they discover that the hit-or-miss tactics that got them through high school are grossly inadequate and inefficient at the competitive college level. So they turn to us for help.

Let's then teach these students proven techniques for studying and learning.

How to Study in College is brimming with exciting techniques, based on widely tested educational and learning theory, that have already helped myriad students. But the tail of theory is never allowed to wag the practical, feet-on-the-ground dog. While theory is always implicit and is sometimes given in enough detail to explain the rationale behind a particular technique or reassure the skeptic, it is never presented without explicit applications and never used simply as exhortation. After all, the person who needs penicillin is hardly cured by learning the history of antibiotics!

Because it is so crucial that students learn for the long term, we are wholeheartedly against techniques that stress mere memorization. Such techniques fill the mind with "knowledge" that melts away after a test and leaves learning still to be done. The techniques presented in this book result in real learning. And real learning, like a real diamond, lasts.

Finally, no textbook—no matter how complete or current—is truly useful if it is boring, confusing, or excessively difficult to read. We have worked hard to keep this book well organized and clear, maintaining a conversational tone so that reading it is like having a sincere, person-to-person chat.

What's Different in the Eighth Edition?

In this new edition, one completely new—and very important—thrust has been added. In addition, valuable changes and adjustments have been made throughout to material retained from the previous edition.

New! Questions in the Margins

The Cornell System, with its extra wide margin designed for jotting cues to use for recitation, has been around for more than forty years and served the test of time. But over time, our thinking about exactly what belongs in this margin has evolved. Initially it was keywords or phrases, but with memory research demonstrating the advantage of recall over mere recognition, we began to suggest using questions as an alternative to keywords. Why? Because formulating questions requires more than extracting a word or phrase from a paragraph's main idea; it actually encourages students to *think* about what's truly important in each paragraph. We call this use of marginal questions the Q System.

Of course, coming up with questions isn't always easy. We know that. While it is possible to extract a keyword or phrase almost mechanically, to arrive at a question you must truly understand a paragraph's meaning. We firmly believe this extra struggle is worth it, but understand how students who are unaccustomed to formulating questions may be reluctant or unsure of how to do so. That is why in this edition we have added questions in the margins throughout the text of this book.

This simple but dramatic step has the potential to revolutionize the way in which this book can be used as a study aid.

1. *It supplies concrete examples of how the main ideas can be used to formulate questions.* Students who are reluctant to use the Q System or unsure of how to begin now have page after page of examples to show them how it is done.
2. *It provides a built-in means for reviewing and reciting the book's important ideas.* By covering the text with a sheet of paper and using the Q System questions as cues, students will be able to more readily master the important material in each chapter.
3. *It offers an advantage over end-of-chapter summaries.* Unlike the summaries in previous editions, which could sometimes be hobbled by a shortage of space, the Q System questions provide a thorough review of every chapter. And because the questions are located alongside the paragraphs they refer to rather than at the end of the chapter, students always have the option of "drilling down" into a particular paragraph when curiosity or confusion leads them to conclude that the main idea alone is not enough.

4. *It provides an additional “entry point” for each chapter.* The approach that one student takes to learning new material may differ dramatically from that of another. The Q System recognizes the diversity of learning styles by providing another “route” for navigating the important ideas of a chapter. It is now possible to walk through each chapter, using the questions as landmarks.

Finally, although we feel that this new approach to *How to Study in College* is a breakthrough, we recognize that there may be some who would prefer to read, study, or teach the book “the old-fashioned way,” without the benefit of the Q System’s marginal questions. It is for this reason that we have made the questions ever-present but relatively unobtrusive. Rather than breaking up the text with questions, we have moved them off to the side and chosen a typeface and font size that don’t dominate each page, thus making them a little easier to ignore if you should so choose. The slight increase in the book’s size and the inclusion of marginal questions should in no way be construed as a change in the book’s fundamental purpose and tone. *How to Study in College* is definitely not a workbook. It remains a book devoted to providing commonsense advice, systems, and techniques supported by in-the-field experience and established research.

New! Improved Navigation

The popularity of the World Wide Web has taught us a great deal about the way in which we approach the things we read. Internet experts refer to “navigation” to describe the way in which readers move through material to find the information they need. To that end, the standard table of contents can be helpful in pointing you to the precise page of a chapter or section you seek, but as that table of contents gets longer and more detailed another important element is lost: its ability to show you at a glance the overall organization of the textbook. Rather than simplifying our detailed table of contents to provide this valuable bird’s-eye view, we’ve included two contents: one that resembles the table of contents from previous editions and another that provides a broad outline of the book’s contents and includes a helpful summary sentence for each chapter. Both should enable you to “navigate” this book even more effectively.

We’ve applied this same thinking to bolstering the book’s index, enabling you and your students to take several paths to pinpoint some of the book’s key ideas.

New! Integrated Computer Information

Since the release of the seventh edition of *How to Study in College*, computers and the Internet have been so utterly integrated into classrooms and college that including a separate chapter on computers would seem as pointless as devoting a separate chapter to using a pen or a pencil. Instead, all references to

computers and the Internet—and there are a lot of them—are incorporated into the book as a whole, occurring at logical and appropriate points throughout the book instead of in a separate chapter at the end. For those instructors and students who still feel the need to read their computer-related information in one parcel, there remains a more conventional chapter on computer use available on the ClassPrep CD and website.

New! Multitasking Advice

A number of recent books have reported on the breakneck pace of modern life. Others have talked about the immense amount of information that we are expected to process in a typical day. Many of us attempt to cope with this speed and overload by multitasking—that is, routinely doing two or more things at once. A new section in Chapter 5, “Managing Stress,” discusses the effects and the pitfalls of this very modern phenomenon and offers some commonsense ideas for coping.

New! Revised Nutritional Information

Food is your fuel. What you eat can affect both your academic performance and your ability to withstand stress. Since the publication of the seventh edition, doctors, nutritionists, and the popular press have been reexamining some of the fundamental beliefs about what you should and shouldn’t be eating. This new edition integrates some of their findings into commonsense recommendations for nutritional guidelines that will steel you against the inevitable demands of academic life.

New! The PACE System for Reading Improvement

Despite overwhelming scientific evidence, speed-reading courses continue to collect money from well-intentioned students who mistakenly believe that they will be able to defy anatomical reality and read at rates of thousands and even tens of thousands of words per minute. It’s a myth that just won’t die. In this edition—as in previous ones—we systematically lay out the reasons why most of these claims are physically impossible. What we’ve added in the eighth edition is the PACE approach—a systematic approach to improving your reading that counteracts the tantalizing claims of the speed-reading salespeople.

New! Consolidated Note-Taking Information

Taking notes in a lecture can be superficially quite different from taking notes for a textbook assignment. Yet despite some key distinctions, the two activities fundamentally share a great deal in common. Rather than teaching textbook

and lecture note taking separately as we have in the past, we've combined the discussion of both, stressing the similarities of both systems in the hopes of making the process of note taking and mastery easier to learn and to remember. Chapters 9, 10, and 11 systematically take you through the before, during, and after of the note-taking process.

Valuable Features Retained

- Both the **Words in Context** and the **Word History System** sections remain in this edition. Because words are the building blocks of thinking, it is essential that students be given a variety of opportunities to add to and strengthen their vocabularies. Unfortunately, not all students have an instant affinity for learning new words. And as instructors know all too well, it is often the approach, not the ultimate goal, that can lead to indifference and even resistance in some students. The Words in Context, by dissecting the remarks of modern thinkers and leaders, provides a level of relevance that makes learning words more meaningful, while the Word History System bolsters the impact of each word with a fascinating explanation and a compelling image.
- In this edition, as in recent ones, "concept maps" provide a graphical means of summarizing chapter content. It would be good to remind the students that much can be gained from these maps, both before reading the chapter and, perhaps even more, after reading the chapter. Before reading, students can acquire advance *organizers*, which, according to David P. Ausubel, can help them learn and remember material they encounter in the chapter itself. After reading the chapter, the concept maps provide a bird's-eye view of the entire chapter, showing the main concepts with linking lines that establish relationships.
- Each "Have You Missed Something?" chapter quiz includes questions to reinforce students' understanding of key concepts. And once again, the rationale for these questions is not to test but rather to teach. If the chapter is read with care and understanding, any student should achieve a perfect score.

Ancillary Materials

This edition is supported by a number of ancillaries that are designed to reinforce and enrich the basic book.

The **Instructor's Resource Manual** provides information on preparing your syllabus, extra multiple-choice questions for each chapter, questions for discussion, and reproducible masters relating to the concepts found in the text.

The **Houghton Mifflin ClassPrep CD-ROM** offers not only an electronic version of much of the content found in the Instructor's Resource Manual, but also a number of additional resources, including chapter-by-chapter **PowerPoint slides**, sample tests, and other supplementary tools that will assist you in using this text to its fullest extent. Also available on this CD are supplementary chapters dealing with a number of specialized skills including writing a research paper, studying foreign languages, studying literature, studying science, studying mathematics, and using the computer. Many of these assets are also available on the instructor's website for this text.

The title-based student website features an interactive version of the Frontier Word System from the text, online versions of the text exercises including additional questions for review, web links exercises to aid students in building their vocabulary, as well as the supplementary chapters.

The **Houghton Mifflin Assessment and Portfolio Builder CD-ROM** provides a bridge between the valuable skills and concepts in this book and the demands of the workplace. Students may use this tool to build their portfolio by responding to questions in the Personal, Interpersonal, Career, and Community modules and by reflecting on their skills, attitudes, values, and behaviors. The Accomplishments Report will summarize the results of their responses and can be used as a starting point for creating a résumé or preparing for interviews. Equipped with their accomplishments report, students are then invited to explore Houghton Mifflin's web-based **Career Resource Center** for more tips, exercises, articles, and ideas to help them succeed. (This tool can be shrink-wrapped with your text.)

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And finally, in this edition, as in the seven previous ones, Walter Pauk offers very special thanks to his students:

“I am eternally grateful to my many students who have taught me much—so that I may pass on a little more to others.”

W. P.
 R. J. Q. O.

To the Student

The desire for learning and the thirst for self-improvement are incredibly powerful impulses. Time and again they have dramatically altered individual lives and even changed our collective history. Helen Keller was unable to hear or see and yet she still learned to read and to communicate with extraordinary eloquence. Booker T. Washington, born into slavery, made a five-hundred-mile trek to high school in order to get the education he craved. More recently, Ben Carson made a U-turn away from what seemed like a dead-end life in a poor Detroit neighborhood by reading two books a week and ultimately earning a scholarship to Yale before going on to medical school and becoming the head of pediatric neurosurgery at the prestigious Johns Hopkins Hospital. And finally, there's the well-known story of Abraham Lincoln, whose willingness to walk twenty miles to borrow a book eventually put him on a path to the U.S. presidency.

Maybe you know someone like Keller, Washington, Carson, or Lincoln. Perhaps their stories share some similarities with your own. If so, you know firsthand how the desire to learn can give you the strength to start projects and to steadfastly see them through to a fulfilling finish. In college, few qualities will serve you better than a deep-rooted will to succeed. After all, on a cold winter morning, it's far easier to get out of bed if you want to ace a mid-term than if you don't really care about your performance!

How This Book Is Organized

The fourteen separate chapters in the eighth edition of *How to Study in College* have been clustered into four distinct parts that are designed to make the book even easier to follow.

Part I: Permanent Skills addresses fundamental competencies that are essential in college and beyond. You don't need to be a student to benefit from

learning how to set goals (Chapter 1), control time (Chapter 2), stay focused (Chapter 3), defend your memory (Chapter 4), and manage stress (Chapter 5). And if you are a student, these are skills that you will be carrying with you for the rest of your life. That's why we call them permanent skills.

Part II: Enrichment Skills deals with the words and pictures we use to communicate. By the time you reach college, you should be competent in communicating in words and to some degree in images. But competency and excellence aren't the same. You can enrich your verbal skills by improving your reading (Chapter 6) and bolstering your vocabulary (Chapter 7). And you can become more image-savvy by thinking visually (Chapter 8).

Part III: Note-Taking Skills is as straightforward as it sounds. The three chapters in this part follow the before, during, and after of taking notes, namely the preparation you should do to gear up for note taking (Chapter 9), the particulars you need to take notes effectively regardless of whether they're in a lecture or for a textbook reading (Chapter 10), and the skills you'll require to review your notes and master them (Chapter 11).

Part IV: Test-Taking Skills fast-forwards to the event that accounts for a lion's share of academic anxiety and a significant portion of your grade: exam week. It offers commonsense advice for managing test anxiety (Chapter 12) and then zeroes in on the two main flavors of college-level tests: objective (Chapter 13) and essay (Chapter 14).

Using This Book

No matter what academic goals you've set for yourself, this book can help you achieve them. In theory, there is no limit to learning and no limit to how you can improve your natural abilities to understand the material you study. By applying the techniques presented here, you will quickly begin to improve as a student, making your college experience a rewarding one.

How to Use This Book's Marginal Questions

If you've already had an opportunity to flip through this book, then you have almost certainly noticed something a little unusual about it. Running along the outside of each page in the marginal area that is blank in most books is a series of questions, one for each important paragraph.

No single academic skill is more important than the ability to ask and answer questions. Questions are what make learning come alive. They activate inert facts and turn them into vibrant ideas. If questions aren't a key component of your studying, there's a chance that you aren't truly learning.

How to Study in College has stressed the importance of questions for quite some time, but in this edition we've taken things an important step further by making questions a regular feature of every page. What should you do with these questions? As it happens, they have a number of potential uses.

Use them as examples. If asking questions is already a part of your learning process, then their importance is already clear to you. But for students who are new to asking questions, this approach may seem a little awkward and strange. We understand that. And that's one of the primary reasons we've included our own questions in the margins of this book: to provide you with real examples of the kinds of questions you'll want to be pondering as you're reading along.

Use them as motivators. As you move through each chapter assignment, how can you be sure you've actually understood what you've read? One way is by asking questions. Before you read each paragraph, ask yourself the question in the margin. Then make it a kind of mini goal to see if you can answer it as you read. If you find it a struggle to answer the question, you may want to read the paragraph again. (If you still can't answer a question after additional tries, you may want to get help from your instructor.) If you find it easy to answer the question, then you're probably picking up the paragraph's important information. That realization should provide motivation to read on and unlock the meaning of each new paragraph in a similar fashion.

Use them as a reviewing aid. After you've finished a page or, if you prefer, the entire chapter, go back and cover up the text of each page with a blank sheet of paper, leaving only the marginal questions uncovered. Then systematically read each question and try to answer it from memory and in your own words. Either recite your answer out loud or jot it down on the blank sheet you're using to cover up the text. Once you've provided your answer, check your work by comparing your response to the actual text.

Use them as a navigational tool. If you're returning to a chapter to look up a specific passage or to confirm a particular fact, it helps to be able to go directly to the information you're seeking rather than having to reread large portions just to find what you're looking for. Chapter and section titles help you in this effort, but they only go so far. The marginal questions give you a quick sense of what each important paragraph is addressing.

Not all books have questions in the margins, of course. In fact, most don't. But the value of learning with a book that has the questions already supplied is that you can then apply this approach to your other textbooks. Your efforts should lead to true comprehension and mastery.

How to Use the “Have You Missed Something?” Questions

The end-of-chapter questions are designed to teach, not test; you'll find no trick questions and no traps to lead you to an incorrect answer. Take each question at face value and answer it to the best of your ability. Use any incorrect answers you give as opportunities to reread the pertinent portion of the chapter. By rereading and rethinking the question and answer, you will greatly strengthen your understanding of the entire concept. Answers to these questions are located in the appendix.

How to Use the Vocabulary-Building Components

The final pages of every chapter are devoted to vocabulary building. There you'll find “Words in Context,” a series of quotations that can be instructive, inspiring, and sometimes even amusing. In each quotation, one or more words is italicized. You are asked to select from three options the word that most nearly reflects the meaning of the italicized word. This is not a test; rather, the purpose is to expose you to words in a real-world context. You may select unfamiliar words for further study. Familiar words will provide reinforcement for your existing vocabulary.

Finally, at the end of each chapter, a single word is pictorially presented in a way that is both highly interesting and incisively memorable. Without a historical background, a word, like a gas-filled balloon, usually floats freely out of sight and out of mind. But once it is anchored to its colorful origins, a word should always remain with you. For example, the history of the word *tantalize* at the end of Chapter 1 is portrayed by King Tantalus. Just out of reach of his parched lips is a pool of fresh water that recedes whenever he tilts his head to drink. Just out of his grasp is a branch of succulent fruit that draws back whenever he tries to pull it toward him. It's hard not to sense his profound frustration. The picture makes a memorable mental impression that the word *tantalize* means “to excite (another) by exposing something desirable while keeping it out of reach.” The Chinese adage that “a picture is worth a thousand words” proves itself again.

A wide and precise vocabulary is really the main ingredient or quality that provides all of us with the endless ability for better thinking and judgment in all phases of life—personally, socially, and professionally.

Discover Your Own Resources

“Know thyself” is wise advice for a student poised at the path that leads to an academic goal. Development of your skills begins with understanding your personal learning style and study skills. By identifying your preferences and strengths, you can zero in on the best study skills techniques for you.

The following list can help you identify your basic learning style. For each item, circle the letter that best matches your style. Keep your responses in mind as you read this book.

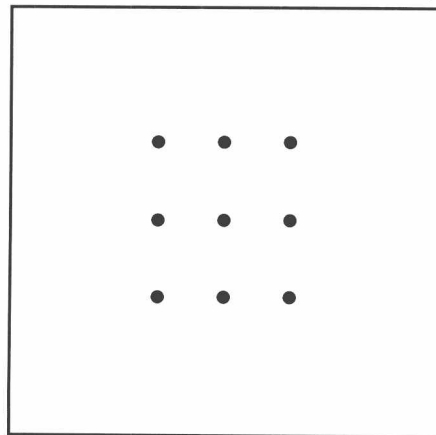
Learning Styles Self-Assessment

1. I study better (a) by myself; (b) in groups; (c) in a combination of the two.
2. I remember best when I’ve (a) *heard* something; (b) *read* or *seen* something; (c) *done* something active, such as problem solving.
3. I think I’m (a) better with facts, such as names or dates; (b) better with concepts, ideas, or themes; (c) about the same with both.
4. I learn better when I read (a) slowly; (b) quickly; (c) either way.
5. I study more efficiently in (a) one solid study period; (b) small blocks of time.
6. I work (a) well under pressure; (b) poorly under pressure.
7. I work (a) quickly, for short periods of time; (b) at a steady, slower pace for longer periods of time.
8. I (a) do learn best in a structured setting, such as a classroom or laboratory; (b) do not learn best in a structured setting.
9. I think that the greatest strength of my learning style is _____.
10. I think that the greatest weakness of my learning style is _____.

FIGURE 1

The Nine-Dot Problem

Connect these dots by drawing four straight lines without taking your pencil from the paper and without retracing any lines. The solution appears on page xxiii.



You'll improve your chances of success if you balance this knowledge of your learning style with a willingness to remain flexible. For example, you may be thinking, "It's true. I'm a sprinter who begins working with a burst of energy and then slacks off. That's the way I've always been. How can I possibly change?" Or you may believe that studying all night is an effective way of coping with a tight schedule and that you have no need for a more conventional strategy. These ways of thinking probably feel comfortable, but they may have created blind spots in your view of studying. To get a sense of how blind spots can limit you, try to solve the problem shown in Figure 1. Odds are that a blind spot will prevent you from solving it. Yet once you see the solution, you'll probably say, "How easy! Why didn't I think of that tactic myself?"

A Second Chance

The Nine-Dot Problem (Figure 1) not only demonstrates a point, but it is also an excellent learning device. For instance, although very few students have solved the puzzle, they nevertheless have learned to break out of the conventional-thinking mold and let their minds rove more freely, which leads to more innovative and imaginative approaches to solving problems.

To prove that you, perhaps, have learned a great deal from this one puzzle, apply your newfound knowledge to the problem shown in Figure 2.

FIGURE 2

The Puzzle of Squares

How many squares are there in this figure? The solution appears on page xxiv.

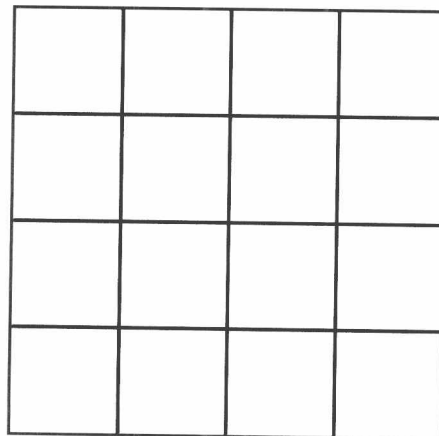
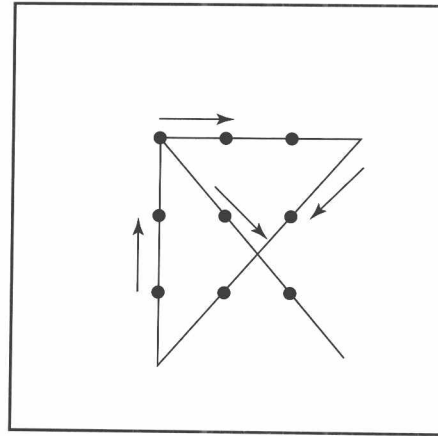


FIGURE 3
Answer to the Nine-Dot Problem
Begin at the top left corner
and follow the arrows.



Take Advantage of This Book's Additional Resources

A number of this book's important skills and systems are enriched and brought to life on our website. You'll have an opportunity to boost your vocabulary skills with electronic flash cards, to test your knowledge and comprehension with additional questions, and to customize and print out your own copies of the time- and task-based schedules discussed in Chapter 2. You can also learn more academic strategies in online supplementary chapters on writing a research paper, studying foreign languages, studying literature, studying science and mathematics, and using a computer for school. To visit the *How to Study in College* website, go to <http://collegesurvival.college.hmco.com/students>.

Take Advantage of Your School's Resources

College or university website It's a rare college these days that doesn't have a website. What sort of information do these sites contain? That's going to vary widely depending on the college. Some have simply converted the text of their college catalog into an online form. Others provide elaborate and interactive repositories of information that keep you up to date on a variety of college news and often enable you to conduct some transactions that might otherwise need to be done by mail, over the phone, or in person. Regardless of the scope of your college's site, it is often a good place to start. Check the site's FAQs (Frequently Asked Questions) to see if your concern has already been addressed.