An Overview of the Reading Process (with Writing)

THINK About It!

Why is the student in the photograph so obviously overwhelmed? What reading, writing, and study strategies would help him cope with the heavy reading and study workload of college? This chapter focuses on the reading process and the reading and writing strategies that can help you to become an active reader. You will learn how to preview a text and discover what you already know about the topic; how to identify what is important to learn, using highlighting and annotating, and how to organize it, using mapping and outlining; and how to use post-reading strategies, including paraphrasing and summarizing, to organize and recall information. All of these skills will also help you to prepare for writing essays and taking exams.
Reading and Writing Connections

EVERYDAY CONNECTIONS

• **Reading** You read an article in the newspaper about a proposed high-rise development in a historically significant part of town.
• **Writing** You write a letter to the editor arguing against the proposed development and proposing the area be listed in the National Register of Historic Places.

ACADEMIC CONNECTIONS

• **Reading** You read a section of a world history text titled “China’s Golden Age: The Tang and Song Dynasties.”
• **Writing** In an essay exam question for the same class, you are asked to describe events that led to the end of the Tang Dynasty and the rise of the Song Dynasty.

WORKPLACE CONNECTIONS

• **Reading** You read in the company newsletter that a new management training program is being offered for existing employees.
• **Writing** You write a summary of your qualifications and your history with the company so that you can be considered for the management training program.

What Is Active Reading?

**GOAL 1**

**Read actively**

Active readers are involved with what they are reading. They interact with the author and his or her ideas. Table 1-1 contrasts the active strategies of successful readers with the passive ones of less successful readers. Throughout the remainder of this chapter and this book, you will discover specific strategies for becoming a more active reader and learner. Not all strategies work for everyone; experiment to discover those that work for you.

**TABLE 1-1  ACTIVE VERSUS PASSIVE READING**

<table>
<thead>
<tr>
<th>Active Readers . . .</th>
<th>Passive Readers . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tailor their reading strategies to suit each assignment.</td>
<td>Read all assignments the same way.</td>
</tr>
<tr>
<td>Analyze the purpose of a reading assignment.</td>
<td>Read an assignment because it was assigned.</td>
</tr>
<tr>
<td>Adjust their reading speed to suit their purposes.</td>
<td>Read everything at the same speed.</td>
</tr>
<tr>
<td>Question ideas in the assignment.</td>
<td>Accept whatever is in print as true.</td>
</tr>
<tr>
<td>Skim the headings or introduction and conclusion to find out what an assignment is about before beginning to read.</td>
<td>Check the length of an assignment and then begin reading.</td>
</tr>
<tr>
<td>Make sure they understand what they are reading as they go along.</td>
<td>Read until the assignment is completed.</td>
</tr>
<tr>
<td>Read with pencil in hand, highlighting, jotting notes, and marking key vocabulary.</td>
<td>Simply read.</td>
</tr>
<tr>
<td>Develop personalized strategies that are particularly effective.</td>
<td>Follow routine, standard methods.</td>
</tr>
</tbody>
</table>
What Is the Reading Process?

Reading is much more than moving your eyes across a page. It is a multi-step process that involves numerous strategies to use before, during, and after reading that will help you understand and remember what you read and prepare you to write in response to what you read. Figure 1-1 will help you visualize the reading process.

**FIGURE 1-1 THE READING PROCESS**

**BEFORE READING**
- **Prepare to read**
  - Preview to get an overview of content and difficulty
  - Make predictions about content
  - Connect ideas to your own experience
  - Decide what to learn and remember using guide questions

**DURING READING**
- **Read to understand ideas**
  - Highlight and annotate
  - Map or outline
  - Pay attention to comprehension signals
  - Figure out unfamiliar words
  - Analyze visuals
  - Use textbook learning aids
  - Use the SQ3R system to strengthen understanding and recall

**AFTER READING**
- **Review**
  - Express ideas in your own words (paraphrase)
  - Summarize to condense ideas
  - Use learning and recall strategies

**NOTE:** Critical thinking is an essential part of the reading process; readers need to interpret, evaluate, and react to the ideas presented, connect them to their own ideas, and express them clearly in writing.
Reading is also more than just understanding what an author says. It involves thinking critically about what you are reading and have read. Think of reading as a process of interacting with the author—questioning, commenting, interpreting, and evaluating what is said. You will learn more about critical reading and thinking in this chapter as well as in Chapters 12, 13, and 14.

Reading is not a lock-step process that you follow from beginning to end. Instead, plan to move back and forth within the reading process. Plan to re-read, perhaps more than once. If you have trouble understanding a passage, you may need to go back and get an overview of how it fits within the whole article, for example. And you are really never finished reading. New thoughts, responses, and reactions may occur to you long after you have read and reviewed the material.

Reading involves many related skills, such as learning new words, identifying what is important, determining how a reading is organized, understanding how ideas are connected, both within individual paragraphs and in essays, articles, and textbooks. Chapters 3–11 will help you polish these skills.

Pre-Reading Strategies

GOAL 3
Preview, predict, question, and connect to prior knowledge

Just as you probably would not jump into a pool without checking its depth, you should not begin reading an article or textbook chapter without knowing what it is about and how the author organized it. This section will show you how to preview, ask questions, and discover what you already know about what you will read.

Preview Before Reading

Authors think about how their ideas are connected and how they can best be organized so that readers are able to follow their thoughts and understand their material. Previewing is a way of quickly familiarizing yourself with the organization and content of a chapter or article before beginning to read it, which you will discover makes a dramatic difference in how effectively you read and how much you can remember.

How to Preview Articles, Essays, and Textbook Chapters

Think of previewing as getting a sneak peek at what a reading will be about.

1. Read the title and subtitle of the selection. The title provides the overall topic of the article, essay, or textbook chapter. The subtitle suggests the specific focus, aspect, or approach the author will take toward the overall topic.

2. Check the author’s name. If it is familiar, what do you know about the author?

3. Read the introduction or the first paragraph. The introduction or first paragraph introduces the subject and suggests how the author will develop it.

4. Read each boldfaced (dark print) heading. Headings announce the major topic of each section.
5. Read the first sentence under each heading, which often states the central thought of the section.

6. If the reading lacks headings, read the first sentence of each of a few paragraphs on each page to discover main ideas.

7. Note any graphic aids. Graphs, charts, photographs, and tables often suggest what is important in the selection, as they have been chosen to support the author's message. Be sure to read the captions for photographs and the legends on graphs, charts, or tables.

8. Read the last paragraph or summary. This may provide a condensed view of the selection, often reviewing key points, or it may draw the reading to a close. If the last paragraph is lengthy, read only the last few sentences.

The following textbook excerpt, “Secrets for Surviving College and Improving Your Grades,” is taken from the introductory section of Psychology, fourth edition, by Saundra K. Ciccarelli and J. Nolan White. It offers a variety of strategies for learning from and studying college textbooks. This excerpt will be used throughout this chapter to demonstrate techniques and give you practice in reading and learning from college textbooks.

**Thinking Before Reading**

Study the highlighted parts of the essay and, using the “How to Preview Articles, Essay, and Textbook Chapters” section above, see if you can explain why each of the sections/sentences is highlighted.

After you have previewed the essay, connect the reading to your own experience by answering the following questions:

a. Do you wish reading and studying were easier?

b. Do you spend time reading and studying but not get the grades you feel you deserve?

**Secrets for Surviving College and Improving Your Grades**

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

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

WHAT ARE SOME DIFFERENT METHODS OF STUDYING?

Most college students, at one point or another in their educational experiences, have probably run into the concept of a learning style, but what exactly is it? In general, a learning style is the particular way in which a person takes in, or absorbs, information.

We learn many different kinds of things during our lives, and one method of learning probably isn't going to work for everyone. Some people seem to learn better if they can read about a topic or put it into their own words (verbal learners). Others may find that looking at charts, diagrams, and figures help them more (visual learners). There are those who learn better if they can hear the information (auditory learners), and there are even people who use the motion of their own bodies to help them remember key information (action learners). While instructors would have a practical nightmare if they tried to teach to every individual student's particular learning style, students who are aware of their own style can use it to change the way they study. So instead of focusing on different learning styles, this section will focus on different study methods. Take the opportunity to try them out and find which methods work best for you. Table A lists just some of the ways in which you can study. All of the methods listed in this table are good for students who wish to improve both their understanding of a subject and their grades on tests. See if you can think of some other ways in which you might prefer to practice the various study methods.

WHEN AND WHERE DO YOU FIT IN TIME TO STUDY?
WHAT ARE SOME STRATEGIES FOR TIME MANAGEMENT?

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

- Make a map of your long-term goals. If you are starting here, what are the paths you need to take to get to your ultimate goal?
- Get a calendar and write down class times, work times, social engagements, everything!
- Before you go to bed, plan your next day, starting with when you get up and prioritizing your tasks for that day. Mark tasks off as you do them.
- Go to bed. Getting enough sleep is a necessary step in managing your tasks. Eating right and walking or stretching between tasks is a good idea, too.
- If you have big tasks, break them down into smaller, more manageable pieces. How do you eat an elephant? One bite at a time.
- Do small tasks, like answering emails or writing the first paragraph of a paper, in those bits of time you might otherwise dismiss; riding the bus to school or work, waiting in a doctor’s office, and so on.
- Build in some play time—all work and no play pretty much insures that you will fail at keeping your schedule. Use play time as a reward for getting tasks done.
Multiple study methods can aid in learning. A list of study methods is presented in Table A.

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

Another study found that people who think they are good at multitasking are actually not (Sanbonmatsu et al., 2013), while still another study indicates that video gamers, who often feel that their success at gaming is training them to be good multitaskers in other areas of life such as texting or talking while driving, are just as unsuccessful at multitasking as nongamers (Donohue et al., 2012). In short, it’s better to focus on one task and only one task for a short period of time before moving on to another than to try to do two things at once.
Chapter 1  

An Overview of the Reading Process (with Writing)

READING TEXTBOOKS: TEXTBOOKS ARE NOT MEATLOAF

HOW SHOULD YOU GO ABOUT READING A TEXTBOOK SO THAT YOU GET THE MOST OUT OF YOUR READING EFFORTS?

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

Students make two common mistakes in regard to reading a textbook. The first mistake is simple: Many students don’t bother to read the textbook before going to the lecture that will cover that material. Trying to get anything out of a lecture without having read the material first is like trying to find a new, unfamiliar place without using a GPS or any kind of directions. It’s easy to get lost. This is especially true because of the assumption that most instructors make when planning their lectures: They take for granted that the students have already read the assignment. The instructors then use the lecture to go into detail about the information the students supposedly got from the reading. If the students have not done the reading, the instructor’s lecture isn’t going to make a whole lot of sense.

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

The SQ3R method

WHAT IS THE SQ3R METHOD?

With a textbook, the material may be interesting but not in the same way that a novel is interesting. A textbook is a big, thick steak—all meat, no filler. Just as a steak has to be chewed to be enjoyed and to be useful to the body, textbook material has to be “chewed” with the mind. You have to read slowly, paying attention to every morsel of meaning. (See page 22–23 for an explanation of the SQ3R method.)

So how do you do that? Probably one of the best-known reading methods is called SQ3R, first used by F. P. Robinson in a 1946 book called Effective Study.

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

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

EXERCISE 1-2

Evaluating Your Previewing of “Secrets for Surviving in College”

**Directions:** Answer each of the following questions based on what you learned by previewing “Secrets for Surviving in College and Improving Your Grades.”

1. Why do many students not achieve the grades they want?
2. What does the term *learning style* mean?
3. What is one of the biggest failings of college students?
4. What is the SQ3R method?

This exercise tested your recall of some of the important ideas in the article. Check your answers by referring back to the article. Did you get most or all of the items correct? This exercise demonstrates, then, that previewing helps you learn the key ideas in a selection before actually reading it.

**Make Predictions**

*Predictions* are educated guesses about the material to be read. For example, you might predict an essay’s focus, a chapter’s method of development, or the key points to be presented within a chapter section. Table 1-2 presents examples of predictions that may be made from a heading and an opening sentence in “Secrets for Surviving College.”

You make predictions based on your experience with written language, your background knowledge, and your familiarity with a subject. While previewing a reading assignment, make predictions about its content and organization, and anticipate what topics the author will cover and how the topics will be organized using these questions:

- What clues does the author give?
- What will this material be about?
- What logically would follow next?

**TABLE 1-2 SAMPLE PREDICTIONS**

<table>
<thead>
<tr>
<th>Heading</th>
<th>Prediction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where and When Do You Fit in Time for Study?</td>
<td>The author will provide tips on how to find time to study.</td>
</tr>
<tr>
<td>Opening Sentence</td>
<td>Prediction</td>
</tr>
<tr>
<td>Most college students, at one point or another, have probably run into the concept of a learning style, but what exactly is it?</td>
<td>The author will define the term <em>learning style</em>.</td>
</tr>
</tbody>
</table>
Connect Reading to Prior Knowledge and Experience

After previewing your assignment, you should take a moment to think about what you already know about the topic—this is your prior knowledge. For example, a student was asked to read an article titled “Growing Urban Problems” for a government class. His first thought was that he knew very little about urban problems because he lived in a rural area, but then he remembered a recent trip to a nearby city where he saw homeless people on the streets. This led him to recall reading about drug problems, drive-by shootings, and muggings.

Activating your prior knowledge aids your reading in three ways: (1) it makes reading easier, because you have already thought about the topic; (2) the material is easier to remember, because you can connect it with what you already know; and (3) topics become more interesting if you can link them to your own experiences. Here are some techniques to help you activate your background knowledge, using “Secrets for Surviving College” as an example.

- **Ask questions and try to answer them.** What have I learned in the past about improving my grades? What do I already know about study methods?
- **Draw on your own experience.** What have I done in the past that improved my grades? What are my friends who are successful in school doing that results in their being successful in class and in taking exams?
- **Brainstorm.** Jot down or type everything that comes to mind about doing well in college and improving your grades. List facts and questions, or describe cases you have recently heard or read about.

At first, you may think you know very little—or even nothing—about a particular topic, but by using one of these techniques, you will find that you almost always know something relevant.

Form Guide Questions

Did you ever read an entire page or more and not remember anything you read? Guide questions can help you overcome this problem. You develop guide questions to answer while or after you read. Most students form them mentally, but you can jot them in the margin if you prefer.

The following tips can help you form questions to guide your reading. It is best to develop guide questions after you preview but before you read.

**Tips for Developing Guide Questions**

- **Turn each major heading into a series of questions.** The questions should ask something that you feel it is important to know.
- **As you read a section, look for and highlight the answers to your questions.**
- **When you finish reading a section, stop and check to see whether you can recall the answers.** Place check marks by those you cannot recall. Then reread.
- **Avoid asking questions that have one-word answers, like yes or no.** Questions that begin with what, why, or how are more useful.

Here are some headings with examples of the kinds of questions you might ask about them.
During Reading Strategies

<table>
<thead>
<tr>
<th>HEADING</th>
<th>QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing Prejudice</td>
<td>How can prejudice be reduced?</td>
</tr>
<tr>
<td></td>
<td>What type of prejudice is discussed?</td>
</tr>
<tr>
<td>The Deepening Recession</td>
<td>What is a recession? Why is it deepening?</td>
</tr>
<tr>
<td>Newton’s First Law of Motion</td>
<td>Who was Newton? What is his First Law of Motion?</td>
</tr>
</tbody>
</table>

**Writing Guide Questions**

**Directions:** Write two guide questions for each of the following headings that appear in “Secrets for Surviving College and Improving Your Grades.”

**EXERCISE 1-3**

<table>
<thead>
<tr>
<th>HEADING</th>
<th>QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Study Methods: Different Strokes for</td>
<td>1. How do study methods differ?</td>
</tr>
<tr>
<td>Different Folks</td>
<td>2. What is the SQ3R method?</td>
</tr>
<tr>
<td>2. The SQ3R Method</td>
<td></td>
</tr>
</tbody>
</table>

**EXERCISE 1-4**

**Directions:** Based on your previewing of “Secrets for Surviving In College and Improving Your Grades” on pages 5–9, answer the following questions to sharpen your previewing skills and strengthen your recall of what you read.

1. How difficult is the material?
2. How has the author organized the material?
3. What type of material is it (for example, practical, theoretical, historical background, or a case study)?
4. Where are the logical breaking points where I might divide the assignment into portions?
5. At what points should I stop and review?

**During Reading Strategies**

**Goal 4**

Identify, organize, and understand key information

You can read textbooks and other college assignments more effectively, remember more of what you read, and review more efficiently if you interact with the text through highlighting and annotating, take notes, create graphic organizers, learn vocabulary, and use textbook aids. Writing as you read and writing in response to reading increases comprehension and recall and aids you in connecting what you are learning to what you already know.

**Highlight and Annotate**

Highlighting and annotating important facts and ideas as you read are effective ways to keep track of information. They are also big time-savers. If it takes you four hours to read an assigned chapter in sociology and you do not highlight or
annotate it, a month later when you need to review it to prepare for an exam, you will have to spend another four hours rereading it.

**Highlighting to Identify What to Learn**

Here are a few basic suggestions for highlighting effectively:

1. **Read a paragraph or section first.** Then go back and highlight what is important.
2. **Highlight key portions of any topic sentence.** Also highlight any supporting details you want to remember (see Chapter 4).
3. **Be accurate.** Make sure your highlighting reflects the ideas stated in the passage.
4. **Highlight the right amount.** If you highlight too little, you may miss valuable information. On the other hand, if you highlight too much, you are not zeroing in on the most important ideas, and you will wind up rereading too much material when you study. As a general rule of thumb, highlight no more than 20 to 30 percent of the material.

Read the following paragraph (para. 4) from the textbook excerpt “Secrets for Surviving College and Improving Your Grades.” Notice that you can understand its meaning from the highlighted parts alone.

We learn many different kinds of things during our lives, and one method of learning probably isn’t going to work for everyone. Some people seem to learn better if they can read about a topic or put it into their own words (verbal learners). Others may find that looking at charts, diagrams, and figures help them more (visual learners). There are those who learn better if they can hear the information (auditory learners), and there are even people who use the motion of their own bodies to help them remember key information (action learners). While instructors would have a practical nightmare if they tried to teach to every individual student’s particular learning style, students who are aware of their own style can use it to change the way they study.


**EXERCISE 1-5**

**Using Highlighting**

**Directions:** Read and then highlight paragraph 6 from “Secrets for Surviving College and Improving Your Grades” on page 7. Use the questions that follow to guide your highlighting.

1. What is the topic sentence of this paragraph?
2. According to the writer, is the human mind meant to multitask?
3. In addition to car accidents and other disasters, what may result from trying to multitask?
4. What three types of tasks were involved in the study by Ophir?
5. What did the results of the study seem to indicate?

**Annotating to Record Your Thinking**

Annotating is a way to keep track of your impressions, ideas, reactions, and questions *as you read*. In contrast to highlighting, annotating is a way of recording your thinking about the key ideas you have identified. It allows you to interact with the reading as a critical reader, almost as if you are having a conversation with the writer—questioning, challenging, agreeing with, disagreeing with, or commenting on what he or she is saying. There is only one rule of annotating: **Read with a pen or pencil in your hand, and make notes in the margin as you read.**

Let’s consider an example of a student writer and how she used annotations to record her ideas and impressions as she read. In her mass-media course, Lin was given an assignment:

*Write an essay on how the media, such as TV, radio, and magazines, shape people’s thinking.*

In a textbook, she found a section on how the media portray men and women differently. As Lin read the discussion carefully, highlighter in hand, all kinds of questions and thoughts came to mind. By annotating as she read, she was able to record her questions and reactions—all of which would help her when it came time to write her essay. Here is the excerpt Lin read, along with her marginal annotations.

**Excerpt from Reading**

Media images of men and women also differ in other subtle ways. In any visual representation of a person—such as a photograph, drawing, or painting—you can measure the relative prominence of the face by calculating the percentage of the vertical dimension occupied by the model’s head. When Dane Archer and his colleagues (1983) inspected 1,750 photographs from *Time*, *Newsweek*, and other magazines, they found what they called “face-ism,” a bias toward greater facial prominence in pictures of men than of women. This phenomenon is so prevalent that it appeared in analyses of 3,500 photographs from different countries, classic portraits painted in the seventeenth century, and the amateur drawings of college students.

Why is the face more prominent in pictures of men than of women? One possible interpretation is that face-ism reflects historical conceptions of the sexes. The face and head symbolize the mind and intellect—which are traditionally associated with men. With respect to women, more importance is attached to the heart, emotions, or perhaps just the body. Indeed, when people evaluate models from photographs, those pictured with high facial prominence are seen as smarter and more assertive, active, and ambitious—regardless of their gender (Schwarz & Kurz, 1989). Another interpretation is that facial prominence signals power and dominance.

-Brehm and Kassin, *Social Psychology*, p. 239
Many readers develop their own style of annotating, using underlining, asterisks, exclamation points, and other marks to express their ideas, as shown in the following box.

## Ways to Annotate Text

- Underline or highlight key ideas
- Mark key terms or definitions with a star (*)
- Number key supporting points (1, 2, 3 . . .)
- Circle and define unfamiliar words
- Indicate useful examples with brackets [ ]
- Mark useful summary statements with an asterisk (*)
- Indicate confusing statements with a question mark (?)
- Draw arrows ↔ connecting ideas
- Highlight statements that reveal the author’s feelings, attitudes, or biases
- Argue with the author by placing an exclamation point (!) next to assertions or statements with which you disagree

In recording your responses in the margin, you might include the following:

<table>
<thead>
<tr>
<th>Questions</th>
<th>Why would . . .?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenges to the author’s ideas</td>
<td>If this is true, wouldn’t . . .?</td>
</tr>
<tr>
<td>Inconsistencies</td>
<td>But the author earlier said . . .</td>
</tr>
<tr>
<td>Examples</td>
<td>For instance . . .</td>
</tr>
<tr>
<td>Exceptions</td>
<td>This wouldn’t be true if . . .</td>
</tr>
<tr>
<td>Disagreements</td>
<td>How could . . .?</td>
</tr>
<tr>
<td>Associations with other sources</td>
<td>This is similar to . . .</td>
</tr>
<tr>
<td>Judgments</td>
<td>Good point . . .</td>
</tr>
</tbody>
</table>

## Map

An idea map is a visual picture of the organization and content of a paragraph, essay, or textbook chapter. It is a drawing that enables you to see what is included in a brief outline form. Idea maps are used throughout this book for both reading and writing. For reading, you can use them to help you understand a selection—discover how it is organized and study how ideas relate to
one another. For writing, an idea map can help you organize your own ideas and check to be sure that all the ideas you have included belong in your essay. Some students prefer mapping to outlining because they feel it is freer and less tightly structured.

Maps can take many forms. You can draw them in any way that shows the relationships between ideas either by hand or using a computer. Use the following tips and refer to the sample map.

**Tips for Mapping**

1. **Identify the overall topic or subject.** Write it in the center or type it at the top of the page.

2. **Identify major ideas that relate to the topic.** Write or type the major ideas, and connect each one to the central topic.

3. **As you discover supporting details that further explain an idea already mapped, connect those details to that idea.**

Once you are skilled at drawing maps or generating them using a computer, you can be more creative, developing different types of maps to fit what you are reading. For example, you can draw a time line to show historical events in the order in which they occurred. A time line starts with the earliest event and ends with the most recent.

Another type of map is one that shows a process—the steps involved in doing something. When you study chronological order and process in Chapter 5, you will discover more uses for these kinds of maps.

**EXERCISE 1-7 Understanding Maps**

**Directions:** Read paragraphs 2 and 3 from the textbook excerpt “Secrets for Surviving College and Improving Your Grades” on pages 5–6, and complete the map that follows, filling in the writer’s main points in the spaces provided.
Creating Maps

Directions: Read paragraph 4 from the textbook excerpt “Secrets for Surviving College and Improving Your Grades” on page 6, and create your own map of the paragraph on a separate sheet of paper. Be sure to include the writer’s main points as well as some supporting details.

Outline

Making an outline is another good way to keep track of what you have read. Outlining involves listing major and minor ideas and showing how they are related. When you make an outline, follow the writer’s organization. An outline usually follows a format like the one on the left below. An outline of an essay about a vacation in San Francisco is shown on the right. Look at both carefully to see how outlining works in practice.

I. Major topic
   A. First major idea
      1. First key supporting detail
         a. Minor detail or example
         b. Minor detail or example
      2. Second key supporting detail
         a. Minor detail or example
         b. Minor detail or example
   B. Second major idea
      1. First key supporting detail
         a. Minor detail or example
         b. Minor detail or example
      2. Second key supporting detail
   II. Second major topic
      A. First major idea

I. Favorite places
   A. Chinatown
      1. Restaurants and markets
         a. Fortune cookie factory
         b. Dim sum restaurants
      2. Museums
         a. Chinese Culture Center
         b. Pacific Heritage Museum
   B. Fisherman’s Wharf
      1. Pier 39
         a. Street performers
         b. Sea lions sunning themselves on the docks
      2. Ghirardelli Square

Notice that the most important ideas are closer to the left margin. The rule of thumb to follow is this: The less important the idea, the more it should be indented.

Tips for Outlining

1. Don’t worry about following the outline format exactly. As long as your outline shows an organization of ideas, it will work for you.
2. Use words and phrases or complete sentences, whichever is easier for you.
3. Use your own words, and don’t write too much.
4. Pay attention to headings. Be sure that all the information you place underneath a heading explains or supports that heading. In the outline above, for instance, the entries “Chinatown” and “Fisherman’s Wharf” are correctly
During Reading Strategies

placed under the major topic “Favorite Places.” Likewise, “Pier 39” and “Ghirardelli Square” are under “Fisherman’s Wharf,” since they are located in the Wharf area.

EXERCISE 1-9

Using Outlines

Directions: After rereading the textbook excerpt “Secrets for Surviving College and Improving Your Grades” on pages 5–9, fill in the missing information in the outline that follows.

I. Different methods of studying
   A. Learning style
   B. Study methods

II. Time management
   A. Strategies to defeat procrastination
   B. Multitasking is not effective
      1. Human mind is not meant to multitask
      2. Studies show that:
         a. Multitaskers use brains less effectively
         b. People incorrectly think they are good at multitasking
         c. Video gamers are just as unsuccessful at multitasking as nongamers
      3. Better to focus on one task at a time

III. Textbook reading
   A. Mistakes by students
      1. They don’t read before the lecture
      2. They read textbook material the same way as a novel
   B. The SQ3R method
      1. Some add fourth R: Reflect
      2. Most important steps are Read, Recite, and Review

Figure Out Unfamiliar Words

A print and/or online dictionary is a crucial tool for locating meanings, learning correct pronunciation, learning about word origins, and finding synonyms. Two popular dictionaries available in print and online are the Merriam Webster (http://www.m-w.com) and American Heritage (http://www.ahdictionary.com), both of which provide an audio component.

As you read, circle or highlight new words, and use the following tips to learn their meanings. Notice that the first step is not to look them up in a dictionary but to use other strategies that can help you determine meaning and keep reading.
How to Figure Out Unfamiliar Words

1. Pronounce the word. Often, by “hearing” the word, you will recall its meaning.

2. Try to figure out the word from its context—the words and sentences around the unfamiliar word. Often there is a clue in the context that will help you figure out a meaning.

   Example: During her lecture, the ornithologist described her research on western spotted owls as well as other species of birds.

   The context reveals that an ornithologist is a person who studies birds.

   Example: The elderly man walked with the help of a prosthesis. He was proud that his artificial limb enabled him to walk without assistance.

   The context reveals that a prosthesis is an artificial limb. Refer to Vocabulary Workshop #2 (p. 74) for more practice using context clues.

3. Look for parts of the word that are familiar. You may spot a familiar root (for example, in the word improbability you may see a variant spelling of the word probable), or you may recognize a familiar beginning (for example, in the word unconventional, knowing that un- means “not” lets you figure out that the word means “not conventional”). Refer to Vocabulary Workshop #3 (p. 80) for more practice using word parts.

4. If you still cannot figure out the word, mark it and keep reading, unless the sentence does not make sense without knowing what the word means. If it does not, then stop and look up the word in a print or online dictionary.

5. When you finish reading, look up all the words you have marked.

6. After reading be sure to record, in a vocabulary log notebook or computer file, the words you figured out or looked up so you can review and use them frequently.

Analyzing Words

Directions: List any words in “Secrets for Surviving College and Improving Your Grades” on pages 5–9 for which you did not know the meaning. Write the meaning for each and indicate what method you used to figure it out (context, words parts, or dictionary). Answers will vary.

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Analyze Visuals

Writers include visuals in many forms of writing, including textbooks, articles and essays, research reports, manuals, and magazines and newspapers. They help writers present complex information in a simple, readable format that readers can easily understand and to clarify or emphasize important concepts. Table 1-3 summarizes some of the different types of visual aids and how writers use them.

Because graphics clarify, summarize, or emphasize important facts, concepts, and trends, you need to study them closely. The list of tips on page 20 will help you get the most out of graphic elements that you encounter in your reading.

<table>
<thead>
<tr>
<th>TABLE 1-3 TYPES OF VISUAL AIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TYPE OF GRAPHIC</strong></td>
</tr>
<tr>
<td><strong>WRITERS USE THESE TO . . .</strong></td>
</tr>
<tr>
<td><strong>EXAMPLE</strong></td>
</tr>
<tr>
<td><strong>TYPE OF GRAPHIC</strong></td>
</tr>
<tr>
<td><strong>WRITERS USE THESE TO . . .</strong></td>
</tr>
<tr>
<td><strong>EXAMPLE</strong></td>
</tr>
</tbody>
</table>
Chapter 1
An Overview of the Reading Process (with Writing)

Tips for Reading Visuals

1. **Read the title or caption and legend.** The title tells you what situation or relationship is being described. The legend is the explanatory caption that may accompany the visual, and it may also function as a key, indicating what particular colors, lines, or pictures mean.

2. **Determine how the visual is organized.** If you are working with a table, note the column headings. For a graph, notice the labels on the vertical axis (the top-to-bottom line on the left side of the graph) and the horizontal axis (the left-to-right line at the bottom of the graph).

3. **Determine what variables (quantities or categories) the visual is illustrating.** Identify the pieces of information that are being compared or the relationship that is being shown. Note any symbols and abbreviations used.

4. **Determine the scale or unit of measurement.** Note how the variables are measured. For example, does a graph show expenditures in dollars, thousands of dollars, or millions of dollars?

5. **Identify any trends, patterns, or relationships the visual is intended to show.**

6. **Read any footnotes and identify the source.** Footnotes are printed at the bottom of a graph or a chart. They indicate how the data were collected, explain what certain numbers or headings mean, and describe the statistical procedures used. Identifying the source is helpful in assessing the reliability of the data.

7. **Make a brief summary note.** In the margin, jot down a brief note about the key trend or pattern emphasized by the visual. Writing will crystallize the idea in your mind, and your note will be useful when you review it.

---

**TABLE 1-2 SAMPLE**

<table>
<thead>
<tr>
<th>Type of Graphic</th>
<th>Tables</th>
<th>Charts</th>
<th>Cartoons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Writers Use These To...</strong></td>
<td>Display facts, figures, statistics and other data in a condensed orderly sequence for clarity and convenient reference.</td>
<td>Display quantitative (numbers-based) or cause and effect relationships.</td>
<td>Make a point quickly or simply; lighten the text by adding a touch of humor; often help to make abstract concepts more concrete or real.</td>
</tr>
<tr>
<td><strong>Example</strong></td>
<td><img src="organizational_chart.png" alt="Organizational Chart" /></td>
<td><img src="cartoon.png" alt="Cartoon" /></td>
<td></td>
</tr>
</tbody>
</table>

**Heading**

Where and When Do You Fit in Time for Study?

**Opening Sentence**

Most college students, at one point or another, have probably run into the concept of a learning style, but what exactly is it?
Interpreting Visuals

**Directions:** Using the visuals in “Secrets for Surviving College and Improving Your Grades” on page 7, answer each of the following questions:

1. Describe the visuals.
2. What are you supposed to learn from these visuals and the caption?
3. Why did the author include the visuals with the reading?
4. On what topic do the visuals provide more detail or further explanation?

---

Use Textbook Learning Aids

Because textbooks are written by teachers, they contain numerous features to help you learn. Table 1-4 below summarizes these features and explains how to use each.

<table>
<thead>
<tr>
<th>Feature</th>
<th>How to Use It</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface or “To the Student”</td>
<td>Read it to find out how the book is organized, what topics it covers, and what learning features it contains.</td>
</tr>
<tr>
<td>Chapter Opener (may include chapter objectives, photographs, and chapter outlines)</td>
<td>Read it to find out what the chapter is about. Use it to test yourself later to see whether you can recall the main points.</td>
</tr>
<tr>
<td>Marginal Vocabulary Definitions</td>
<td>Learn the definition of each term. Create a vocabulary log (in a notebook or computer file) and enter words you need to learn.</td>
</tr>
<tr>
<td>Photographs and Graphics</td>
<td>Determine their purpose: what important information do they illustrate? For diagrams, charts, and tables, note the process or trend they illustrate. Make marginal notes. Practice redrawing diagrams without referring to the originals.</td>
</tr>
<tr>
<td>Test Yourself Questions (after sections within the chapter)</td>
<td>Always check to see whether you can answer them before going on to the next section. Use them to check your recall of chapter content when studying for an exam.</td>
</tr>
<tr>
<td>Special Interest Inserts (can include profiles of people, coverage of related issues, critical thinking topics, etc.)</td>
<td>Discover how the inserts are related to the chapter content: what key concepts do they illustrate?</td>
</tr>
<tr>
<td>Review Questions/Problems/Discussion Questions</td>
<td>Read them once before you read the chapter to discover what you are expected to learn. Use them after you have read the chapter to test your recall.</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>Test yourself by converting summary statements into questions using the words Who? Why? When? How? and So What?</td>
</tr>
<tr>
<td>Chapter Review Quiz</td>
<td>Use this to prepare for an exam. Pay extra attention to items you get wrong.</td>
</tr>
</tbody>
</table>
Chapter 1
An Overview of the Reading Process (with Writing)

**Steps in the SQ3R System**

- **Survey**: Become familiar with the overall content and organization of the material using the steps for previewing on page 4.
- **Question**: Ask questions about the material that you expect to be able to answer as you read. As you read each successive heading, turn it into a question.
- **Read**: As you read each section, actively search for the answers to your guide questions. When you find the answers, underline or mark the portions of the text that concisely state the information.
- **Recite**: Probably the most important part of the system, “recite” means that after each section or after each major heading you should stop, look away from the page, and try to remember the answer to your question. If you are unable to remember, look back at the page and reread the material. Then test yourself again by looking away from the page and “reciting” the answer to your question.
- **Review**: Immediately after you have finished reading, go back through the material again, reading headings and summaries. As you read each heading, recall your question and test yourself to see whether you can still remember the answer. If you cannot, reread that section. Once you are satisfied that you have understood and recalled key information, move toward the higher-level thinking skills. Ask application, analysis, evaluation, and creation questions. Some students like to add a fourth “R” step—for “Reflect.”

**EXERCISE 1-12**
Evaluating Textbook Learning Aids

**Directions**: Using this textbook or a textbook from one of your other courses, use Table 1-4 to analyze the features the author includes to guide your learning. Identify particularly useful features, and decide how you will use each when you study.
**Examining a Textbook Excerpt Using SQ3R**

**Directions:** Apply the SQ3R system to an article or a section in a textbook chapter you are currently reading. List your questions in the margin or on a separate sheet of paper, and highlight the answers in the article or textbook. After you have finished, write a paragraph evaluating how well SQ3R worked for you, and note how you might adapt it.

The professional readings in this text are intended to be challenging, and even using all the strategies described above, you may still encounter difficulties reading them. Use the following suggestions to help you approach these types of assignments:

**Tips for Understanding Difficult Assignments**

1. **Analyze the time and place in which you are reading.** If you’ve been working for several hours, mental fatigue may be the source of the problem. If you are reading in a place with distractions or interruptions, you might not be able to understand what you are reading.

2. **Rephrase each paragraph in your own words.** You might need to approach complicated material sentence by sentence, expressing each in your own words.

3. **Read aloud sentences or sections that are particularly difficult.** Reading out loud sometimes makes complicated material easier to understand.

4. **Reread difficult or complicated sections.** In fact, sometimes several readings are appropriate and necessary.

5. **Slow down your reading rate.** On occasion, simply reading more slowly and carefully will provide you with the needed boost in comprehension.

6. **Write a brief outline of major points.** This will help you see the overall organization and progression of ideas.

7. **Highlight key ideas.** After you have read a section, go back and think about and highlight what is important. Highlighting forces you to sort out what is important, and this sorting process builds comprehension and recall.

**Post-Reading Strategies**

**GOAL 5**

Paraphrase, summarize, and recall information

As a college student, you are expected to learn large amounts of textbook material. Rereading to learn is *not* an effective strategy. Writing *is* an effective strategy. In fact, writing is an excellent means of improving both your comprehension and your retention.

Writing during and after reading has numerous advantages:

1. **Writing focuses your attention.** If you are writing as well as reading, you are forced to keep your mind on the topic.

2. **Writing forces you to think.** Highlighting or writing forces you to decide what is important and understand relationships and connections.
3. **Writing tests your understanding.** One of the truest measures of understanding is your ability to explain an idea in your own words. When an idea is unclear or confusing, you will be at a loss for words.

4. **Writing facilitates recall.** Research studies indicate that information is recalled more easily if it is elaborated on. Elaboration involves expanding and thinking about the material by drawing connections and associations, seeing relationships, and applying what you have learned. Writing is a form of elaboration.

### Paraphrase

A **paraphrase** is a restatement, in your own words, of a paragraph, passage, or reading selection. It is a condensed (shortened) rewording of each sentence or key idea in the order in which it appears in a reading. Why is paraphrasing such a useful skill for so many college courses?

- It is a way to record an author’s ideas for later use. Sometimes your paraphrase can be incorporated directly into a paragraph or essay. Remember, however, that although you have changed the wording, you are still working with someone else’s ideas. It is, therefore, necessary to document the source at the end of your essay. (For further information about documentation, see Chapter 11.)
- Paraphrasing helps you clarify an author’s ideas. When you paraphrase, you are forced to work with each idea individually and see how the ideas relate to one another.
- Paraphrasing is a useful study and learning strategy. When you paraphrase a reading, you think through and learn the information it contains.
- Because a paraphrase requires you to use different words from those in the reading, writing paraphrases helps you develop your vocabulary.
- By paraphrasing, you are practicing your own writing skills.

Writing a paraphrase involves two skills: (1) substituting synonyms and (2) rewording and rearranging sentence parts, as detailed in the following box.

### Writing a Paraphrase

1. **Substitute synonyms.** A **synonym** is a word that has the same general meaning as another word. For example, *thin* and *lanky* are synonyms. When selecting synonyms, use the following guidelines:
   - Make sure the synonym you choose fits the context (overall meaning) of the sentence. Suppose the sentence you are paraphrasing is “The physician attempted to **neutralize** the effects of the drug overdose.” All of the following words are synonyms for neutralize: *negate, nullify, counteract*. However, *counteract* fits the context, but *negate* and *nullify* do not. *Negate* and *nullify* suggest the ability to cancel, and a drug overdose, once taken, cannot be canceled. It can, however, be counteracted.
   - Refer to a dictionary. Use a print or online dictionary to check the exact meanings of words; refer to a thesaurus (a dictionary of synonyms) to get ideas for alternative or equivalent words.
Do not try to replace every word in a sentence with a synonym. Sometimes a substitute does not exist. In the sentence “Archaeologists study fossils of extinct species,” the term fossils clearly and accurately describes what archaeologists study. Therefore, it does not need to be replaced.

Consider connotation. A word’s connotation is the feelings it invokes. Some words have positive connotations, while others have negative connotations. When writing a paraphrase, select words with connotations that mirror the original. For instance, if the original reading uses the word adorable, which has a positive connotation, do not paraphrase with the word sticky-sweet, which has a negative connotation.

Be sure to paraphrase—that is, do not change only a few words.

2. Reword and rearrange sentence parts. When rearranging sentence parts, use the following guidelines:

- Split lengthy, complicated sentences into two or more shorter sentences.
- Be sure you understand the author’s key ideas as well as related ideas, and include both in your paraphrase.

A Sample Paraphrase

Marcie was writing an essay on animal communication for her biology class. In a reading, she found one passage that contained exactly the information she needed. To help herself remember both the author’s main point and the details, she decided to paraphrase. Here is an excerpt from the reading, followed by Marcie’s paraphrase:

**Communication in the Animal Kingdom**

Animal species have complex forms of communication. Ants send chemical signals secreted from glands to share communication information about food and enemies with other members of the colony. When honeybees discover a source of nectar, they return to the hive and communicate its location to the other worker bees through an intricate dance that signals both direction and distance. Male songbirds of various species sing in the spring to attract a female mate and also to warn other males to stay away from their territory to avoid a fight. Dolphins talk to each other at great depths of the ocean by making a combination of clicking, whistling, and barking sounds.

—Kassin, *Psychology*, p. 252

**Marcie’s Paraphrase of “Communication in the Animal Kingdom”**

According to Kassin (252), animals have complicated ways of communicating. Ants can tell one another about food and enemies by secreting chemicals from their glands. Honeybees tell others in their hive that they have found a source of nectar by a detailed dance that indicates both where the nectar is located and how far away it is. In the spring, male songbirds sing to draw females and to warn other males to stay away so as to avoid a dispute. Using clicks, whistles, and barking sounds, dolphins communicate with one another.
Look closely at Marcie’s paraphrase and the original reading, noticing how she substituted synonyms. For example, in the first sentence, she substituted *complicated* for *complex*, *ways* for *forms*, and so forth. She also included all of the author’s important main ideas and supporting details.

**Writing a Paraphrase**

**Directions:** Working with a classmate, reread paragraphs 8–10 from the textbook excerpt “Secrets for Surviving College and Improving Your Grades” on page 8. Working sentence by sentence, write a paraphrase. Then compare your work and combine both of your paraphrases to produce a revised paraphrase.

**Summarize**

A *summary* is a brief statement of the major points of a reading, and it is always shorter than the original. Unlike a paraphrase, a summary does not attempt to cover all of the reading’s key points and details. Usually a summary is about one-fifth the length of the original or less.

Writing summaries has four main benefits:

1. **Writing a summary improves your grasp of a writer’s ideas** because you must identify key ideas and explain how they relate to one another.
2. **Writing a summary saves you time when you are reviewing or studying for an exam.**
3. **College instructors across the disciplines—not just writing instructors—assign summaries.** For example, you may be asked to write a plot summary of a short story or a summary of your findings for a science laboratory experiment.
4. **Summarizing is an important workplace skill.** You might be asked to summarize a meeting, condense a lengthy report, or briefly describe the outcomes of a sales conference you attended.

To write an effective summary, follow these guidelines:

**Writing a Summary**

1. **Complete the reading before writing your summary.** Feel free to highlight and/or annotate as you read.
2. **Review the reading.** Review your highlighting and/or annotations, or use your review to highlight and annotate for the first time.
3. **Write an opening sentence that states the author’s thesis or main point.** For a review of thesis statements, see Chapter 8, page 246.
4. **Explain the author’s most important supporting ideas.** Be sure to express the author’s main ideas in your own words; don’t copy phrases or sentences. If you can’t express an idea in your own words, you
probably don’t fully understand it, so reread, talk to someone about the passage, or seek other information about the passage to clarify its meaning.

5. Include restated definitions of key terms, important concepts, procedures, or principles. Do not include examples, descriptive details, quotations, or anything not essential to the main point. Do not include your opinion.

6. Present the ideas in the order in which they appear in the original source.

7. Reread your summary to determine whether it contains sufficient information.

8. Ask yourself this question: If someone had not read the article, would your summary be a good substitute that covers all the author’s main points? If not, revise your summary to include additional information.

9. Indicate the source of the material you summarized. See Chapter 11, page 334 for more information on how to cite sources.

### Evaluating Summaries

**Directions:** Reread the textbook excerpt “Secrets for Surviving College and Improving Your Grades” on pages 5–9. Working with a classmate, compare the two sample summaries below and decide which is better. Explain your choice.

**Sample Summary 1**

Students commonly make two errors when reading textbooks. First, many students do not read the textbook before going to a lecture about the material. Most instructors assume students have read the assignment and then use the lecture to provide details; students won’t understand the lecture if they haven’t read the assignment. Second, students try to read textbook material like a novel, starting at the first page and reading continuously. Textbook material should be read slowly and with attention paid to meaning.

**Sample Summary 2**

Students have to read textbooks to succeed in a course; taking notes on lectures or slide presentations is not enough. Students make two common mistakes regarding textbooks. Their first mistake is not bothering to read the textbook before going to class. This is like trying to find a new place without any directions. It’s especially important because most instructors assume students have read the assignment. Their lectures are used to go into detail about the textbook information, so if you haven’t read the material, you won’t understand the lecture.

The second mistake students make is trying to read textbook material as if it were a novel with an interesting plot and lots of “filler.” Textbook material may be interesting but it has no “filler.” Textbook material must be read slowly and with attention given to every morsel of meaning.
EXERCISE 1-16

Writing a Summary

Directions: Using the steps listed in the “Writing a Summary” box on page 26, write a summary of paragraphs 11–13 of the textbook excerpt “Secrets for Surviving College and Improving Your Grades” on page 8. Swap your summary with that of a classmate and together compare and discuss your summaries.

Use Learning and Recall Strategies

In order to get good grades, you have to plan when to study and use the right techniques to get the most out of the time you spend. Use the following strategies.

1. Immediate Review Review new information as soon as possible after you hear or read it to fix it in your mind by doing the following:
   ■ Review your lecture notes as soon as possible after taking them.
   ■ Review a textbook chapter as soon as you finish reading it by rereading each chapter heading and the summary.
   ■ Review all new course materials at the end of each day of classes to make the information stick in your mind.

2. Periodic Review Briefly review previously learned material on a regular basis (every three weeks or so), so you will not forget it. For example, you will not remember material from the first two weeks of a course if you do not review it regularly, which means you will have to relearn it for the final exam.

3. Final Review Briefly review material as close in time as possible before a test or exam to fix it in your mind.

4. Building an Intent to Remember Very few people remember things that they do not intend to remember. Before you begin to read an assignment, define as clearly as possible what you need to remember, depending on the type of material, why you are reading it, and how familiar you are with the topic. For instance, if you are reading an essay for a class discussion, plan to remember not only key ideas but also points of controversy, applications, and opinions with which you disagree. However, if you are reviewing a chapter for an essay exam, look for important ideas, trends, and significance of events.

   As you read a text assignment, sort important information from that which is less important by asking and answering questions such as
   ■ How important is this information?
   ■ Will I need to know this for the exam?
   ■ Is this a key idea or is it an explanation of a key idea?
   ■ Why did the writer include this?

5. Organizing and Categorizing Information that is organized is easier to remember than material that is randomly arranged. One effective way to organize information is to categorize it, to arrange it in groups according to similar characteristics. Suppose, for example, that you had to remember the following list of items to buy for a picnic: cooler, candy, 7-Up, Pepsi, napkins, potato chips, lemonade, peanuts, paper plates. The easiest way to remember this list would be to divide it into groups.
By putting similar items together, you are learning three shorter, organized lists rather than one long, unorganized one.

If you were reading an essay on discipline in public high schools, instead of learning one long list of reasons for disruptive student behavior, you might divide the reasons into groups such as peer conflicts, teacher-student conflicts, and so forth, which are easier to remember.

6. **Associating Ideas** Association involves connecting new information with previously acquired knowledge. For instance, if you are reading about divorce in a sociology class and trying to remember a list of common causes, you might try to associate each cause with a person you know who exhibits that problem. If one cause of divorce is lack of communication, for instance, you might remember this by thinking of a couple you know whose lack of communication has caused relationship difficulties.

7. **Using a Variety of Sensory Modes** Your senses of sight, hearing, and touch can all help you remember what you read, as the more senses you use the easier it is to recall information. Activities such as highlighting, note taking, and outlining involve your sense of touch and reinforce your learning, while repeating the information out loud or listening to someone else repeat it is also effective.

8. **Visualizing** Visualizing, or creating a mental picture of what you have read, often aids recall when you are reading about events, people, processes, or procedures. Visualization of abstract ideas, theories, philosophies, and concepts can be more difficult, although you may be able to create a visual picture of the relationship of ideas in your mind or on paper.

9. **Using Mnemonic Devices** Memory tricks and devices, often called mnemonics, are useful in helping you recall lists of factual information. You might use a rhyme such as “Thirty days hath September, April, June, and November . . .” to memorize months or make up a word or phrase in which each letter represents an item you are trying to remember: Roy G. Biv, for example, helps you remember the colors in the light spectrum—red, orange, yellow, green, blue, indigo, violet.

### EXERCISE 1-17

#### Using Recall Strategies

**Directions:** Four study-learning situations follow, based on the textbook excerpt “Secrets for Surviving College and Improving Your Grades.” Indicate which of the strategies described in this section—organization/categorization, association, sensory modes, visualization, and mnemonic devices—might be most useful in each situation.

1. For an essay test, you will be expected to give examples of each of the different study methods listed in Table A. How might you remember each study method and corresponding examples for the test?

   *categorization, association, visualization, mnemonic devices*
2. For a class discussion, you are expected to be familiar with the strategies to defeat procrastination discussed in paragraph 5. What retention aid(s) could help you remember them?

- visualization, association, using a variety of sensory modes

3. You are expected to explain and discuss the information about multitasking in paragraphs 6 and 7, including the three studies cited in these paragraphs. How could you learn this information easily?

- building an intent to remember, association, visualization, using a variety of sensory modes

4. You know that you will be tested on different aspects of the SQ3R method (paragraphs 11–13) on the next exam. What could you do as you review to help yourself remember details about the SQ3R method?

- visualization, building an intent to remember, using a variety of sensory modes, mnemonic devices

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Think Critically

**GOAL 6**

Think critically about what you read

The biggest difference between high school and college is the difference in your instructors’ expectations of how you should think. High school classes focus on developing a basic foundation of knowledge, often built through memorization. In college, however, you are expected not only to learn and memorize new information, but also to analyze what you are learning—to be a critical thinker.

Critical does not mean “negative.” Critical thinking means evaluating and reacting to what you read, rather than accepting everything as “the truth.” Thinking critically sometimes requires you to consult multiple sources of information to develop perspective on a topic. For example, when writing an essay on how post-traumatic stress disorder affects returning veterans, you might read several accounts written by vets and consult several research studies, gleaning ideas from each.

**The Benefits of Critical Thinking**

The ability to think critically offers many benefits. In your college courses, critical thinking allows you to

- Do well on essay exams, particularly those that ask for analysis.
- Write effective essays and term papers.
- Distinguish good information from incomplete, inaccurate, or misleading information.

In everyday life and in the workplace, a good set of critical-thinking skills will help you

- Make informed, reasonable decisions.
- Spend money wisely and make good financial choices.
- Understand issues in the news, including business and political issues.
- Expand your interests beyond “passive entertainment” (such as watching TV or movies) to active entertainment that engages your mind and creativity.
Critical Thinking Is Active Thinking

Critical thinking is essential to effective reading. For example,

■ When reading a college textbook, you might ask yourself if the author is trying to influence your opinions.
■ When reading a newspaper, you might ask yourself if the article is telling the full story or if the journalist is leaving something out.
■ When reading an advertisement, you might ask yourself what message the ad is sending to get you to buy the product.

To help you strengthen your critical reading skills, Chapters 12–14 are devoted entirely to critical thinking.

EXERCISE 1-18

Understanding Critical Thinking

Directions: Indicate whether each of the following statements is true (T) or false (F) based on your understanding of critical thinking.

1. Thinking critically about a reading selection means finding ways to criticize it and show all the ways it is wrong. [F]
2. Critical reading is not necessary unless the instructor specifically assigns some sort of “critical-thinking” exercise to go along with the reading. [F]
3. While textbooks offer good opportunities for critical reading, so do other reading materials, such as magazines and Web sites. [T]
4. Critical-thinking skills are important in college but do not have much relevance in the “real world.” [F]
5. Engaging in critical thinking sometimes requires you to consult additional sources of information beyond what you are currently reading. [T]

EXERCISE 1-19

Thinking Critically

Directions: The passage below is a brief excerpt from a sociology textbook chapter. Read the paragraph and answer the questions that follow.

Modern medical technology is marvelous. People walk around with the hearts, kidneys, livers, lungs, and faces of deceased people. Eventually, perhaps, surgeons will be able to transplant brains. The costs are similarly astounding . . . our national medical bill is approaching $3 trillion a year. This is even more than the total amount that the country raises in income taxes (Statistical Abstract 2013: Table 468).

—Henslin, Sociology: A Down-to-Earth Approach, p. 174
1. The author states that “modern medical technology is marvelous.” What indication is there that he might not totally believe this?

He writes about the tremendous cost associated with medical technology, and this might not be as marvelous as the inventions themselves.

2. Why does the author suggest that surgeons might be able to transplant brains in the future?

The technology and other costs associated with a brain transplant would be astronomical.

3. The author writes, “People walk around with the hearts, kidneys, livers, lungs, and faces of deceased people.” What might the wording of this sentence indicate about the author’s attitude toward transplanted organs?

He approaches the subject casually as though it is an everyday occurrence, which it really is. He may be suggesting how casually tremendous sums of money are being spent on transplants. His reference to deceased people might also suggest a negative feeling toward the practice.

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Think Critically About Information in Textbooks

We live in a society bombarded with information. Everywhere you look, you will see written materials, from newspapers and magazines to billboards and Web sites. Numerous experts estimate that the amount of information available to society is increasing by over 50 percent every year.

That’s a lot of information for a person to take in. So how do you cut through the clutter to find and learn the information you need? Here are some suggestions.

**Tips for Finding Relevant Information**

- **Practice selective reading.** You do not have to read everything you see. (College assignments are the exception, of course.) Learn to quickly skim material to see if it interests you, and then read the material that does.

- **Understand the goal of what you are reading.** Is it to educate you or to convince you of something? In advertising, lovely words and images are used to make products seem desirable. In the news, politicians rant and rave about the issues. Evaluate the purpose of what you are reading by asking yourself what the writer’s goal is.

- **Adjust your reading speed to match the task.** If you are reading an article in *People* magazine, you probably can skim through it quickly. However, if you are filling out paperwork for financial aid or medical claims, you will want to read the forms slowly and carefully to make sure you are doing everything right.

- **Read the “fine print.”** When dealing with important paperwork, look to see if important information is buried in large amounts of text or in small print so that you’ll be less likely to read it. Never sign anything without reading it completely first.
EXERCISE 1-20

Thinking Critically About Information

Directions: Read the passage and then answer the question that follows.

Hidden Information

Banks and credit card companies make a huge amount of money each year by charging interest to their customers. When you use a credit card, you are actually borrowing money from the credit card company. Unless you pay the borrowed amount back within one month, you start paying interest charges. By law, credit card companies are required to tell you on your credit card statement how much interest they are charging you.

Have you ever looked at your credit card statement? It is filled with information and can have pages of "fine print" (that is, very small print) with the information required by law. How many people take the time to read this information? Not many. The credit card companies have effectively buried important information that they don’t want you to know.

The back side of your credit card statement is filled with tiny print. Somewhere in the middle it says, “You are not responsible for paying for any purchases made if your credit card is stolen.” You receive a phone call from the credit card company offering you “protection against unauthorized use of your card.” If you pay them $99 a year, they will cover any purchases that are made if your card is stolen. Should you pay the $99 for the protection plan? Why or why not?

You should not because your card is already protected against fraudulent use, as the credit card statement says in small print. The credit card company is trying to make additional money by selling you a plan that you don’t need.

READ AND RESPOND: A TEXTBOOK EXCERPT

Secrets for Surviving College and Improving Your Grades

Saundra K. Ciccarelli and J. Nolan White

The questions and activities below refer to the textbook excerpt “Secrets for Surviving College and Improving Your Grades” on pages 5–9. You have been working with this excerpt throughout the chapter and have mastered much of its content. Now you are ready to examine it, integrate and apply ideas, and write in response to reading it.

As you read the professional readings throughout the remainder of this book, be sure to use the skills you have learned in this chapter: previewing, highlighting, annotating, mapping, outlining, paraphrasing, and summarizing. You now have a
valuable repository of skills that you can use to help you understand, analyze, and respond to the reading. Be sure to use them!

Writing in Response to Reading

**Strengthening Your Vocabulary**  
Identify at least five words used in the reading that are unfamiliar to you. Using context, word parts, or a dictionary, write a brief definition of each word.

**Reading and Writing: An Integrated Perspective**

1. How would you describe your learning style? What type of instruction works best for you in the classroom?
2. In your daily life, are you a multitasker? Write a journal entry describing the types of tasks you attempt to do at the same time. Do you think you are effective when you multitask? Why or why not?
3. How do the authors capture the reader’s attention? Evaluate the title and the introduction of the selection.
4. What techniques do the authors use to introduce ideas and let the reader know what is important?
5. Evaluate Table A (p. 7). How effectively does the table present the information about study methods?
6. What do the photos accompanying this selection add to the material? What other photos or illustrations would be effective for this subject?

**Thinking and Writing Critically**

1. How would you describe the authors’ attitude toward this subject? Evaluate how well their tone matches the material.
2. Write a sentence describing the authors’ purpose and their intended audience.
3. Which one of the time management strategies seems most useful? Which seems least useful? Explain your reasons.
4. What piece of information or advice in this selection was most helpful to you? What other information do you wish the authors had addressed about studying or learning?
5. The authors report that the three Rs in the SQ3R method (Read, Recite, and Review) may be the most important steps. Apply this to your own experience; do you agree? Do you use the fourth R—Reflect—when you are reading?

**Writing Paragraphs**

1. Write a paragraph explaining how you would answer the question, “Is there some trick to getting good grades?” Include your own strategies as well as any from the selection that sound especially effective to you.
2. Write a paragraph addressing the idea of multitasking. Why do the authors call it an “enduring myth”? Were you surprised to read about the study results showing the ineffectiveness of multitasking? Why or why not?

3. The authors advise you to use play time as a reward for getting tasks done. What other rewards do you use when you complete a task? Write a paragraph exploring how play time and other rewards can improve your performance or effectiveness.

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4. Identify at least four study methods in Table A that work for you and four new ones that you are willing to try. Write an essay describing how you will apply these methods as you study specific subjects.

5. One of the time management strategies described in this selection involves making a map of your long-term goals. Create such a map for yourself, and then write an essay answering the author’s question: “What are the paths you need to take to get to your ultimate goal?”

Self-Test Summary

To test yourself, cover the Answer column with a sheet of paper and answer each question in the left column. Evaluate each of your answers as you work by sliding the paper down and comparing your answer with what is printed in the Answer column.

**QUESTION**

<table>
<thead>
<tr>
<th>GOAL 1</th>
<th>Read actively</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is active reading?</td>
<td>Active reading is a way to get involved and interact with ideas presented in a reading.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GOAL 2</th>
<th>Use the reading process</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is involved in the reading process?</td>
<td>The reading process involves using strategies before, during, and after you reading that will help you understand, organize, and remember what you read and prepare you to write about it.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GOAL 3</th>
<th>Preview, question, and connect the reading to prior knowledge (pre-reading)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why are previewing, questioning, and connecting to prior knowledge helpful?</td>
<td>Previewing allows you to becoming familiar with a reading’s content and structure before reading. Questioning involves creating questions that will guide your reading. Connecting to prior knowledge enables you to discover what you already know about the topic and helps you remember the new material.</td>
</tr>
</tbody>
</table>

*(continued)*
### Question and Answer

#### Goal 4: Identify, organize, and understand key information (during reading)

What techniques help you identify, organize, and understand key information?

1. Highlight important parts of topic sentences as well as key supporting details, be accurate, and highlight the right amount.
2. Use mapping to show how ideas in a paragraph or chapter are related.
3. Use outlining to list major and minor ideas and to show how they related.
4. Read and interpret visuals.
5. Use textbook learning aids to discover what is important and help you learn.
6. Apply the SQ3R method to learn from textbooks as you read.
7. Follow the tips on page 23 for reading difficult assignments.

#### Goal 5: Paraphrase, summarize, and recall information (during and post-reading)

Why are paraphrasing and summarizing useful; what does recalling information involve?

Paraphrasing—a restatement in your own words of a paragraph, passage, or reading selection—is a good way to ensure you have understood an author’s ideas. Summarizing, writing a brief statement of the major points of a reading, is an effective way to condense ideas. Learning and recall strategies include immediate review, periodic review, final review, building an intent to remember, organizing and categorizing, association, using a variety of sensory modes, visualization, and mnemonic devices.

#### Goal 6: Think critically about what you read

What is critical thinking, and how do you think critically about information?

Critical thinking means evaluating and reacting to what you read, rather than accepting everything as “the truth.” To find and learn the information you need in textbooks, practice selective reading, understand the goal of what you are reading, adjust your reading speed to match the task, and read the “fine print.”

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**MySkillsLab**

Visit Chapter 1, “An Overview of the Reading Process with Writing,” in MySkillsLab to test your understanding of chapter goals.