



5

Notes and Summaries: Writing to Remember

AIMS OF THE CHAPTER

This chapter shows how writing and other acts of communication are essential parts of retaining and recalling information. Writing helps make facts meaningful and connected. Moreover, to be useful, memories need to be recalled and communicated at moments when they are needed. So the ability to produce statements of information at the appropriate time is a crucial part of the memory process.

KEY POINTS

1. Many tasks in college depend on remembering information and ideas. Restating information and ideas actively through writing can help you remember what you are learning.
2. Memory is helped by grouping pieces of information, connecting information with ideas, finding patterns in the knowledge, applying knowledge actively in situations, and finding personal connections with the information. Writing can aid in each of these processes.
3. Rewriting notes in various formats, creating diagrams and charts, using computers to take and rearrange notes, and writing summaries are different ways of representing what you are learning.

QUESTIONS TO THINK ABOUT

- When have you had to remember a lot of information? What was easy and what was difficult about the experience? What techniques helped you remember? Which were most useful? Which least?
- What subjects in or out of school do you remember most about? Which subjects or kinds of material have you had the hardest time remembering?

- Which books have you written about for school or other situations? How much do you remember about these works? How does that compare with what you remember about books you have read at around the same time, but not written about?

Your main task in many courses is to become familiar with a body of information. Success in such courses consists of your remembering and displaying the information at appropriate times, usually in written examinations. In this manner you may have been asked to learn the major historical events in nineteenth-century America, the standard spellings of English words, the various species of animals along with their characteristics and life cycles, or the opinions advanced by various philosophers.

Writing enters into memory tasks in two ways: in learning the material and in demonstrating that you know and understand it. To explore the first part, how writing helps learning, we need to see how writing helps one remember important details and overall meaning. To explore the second part, the demonstration of knowledge, we need to look into how writing can connect information, allowing you to display to the instructor both detailed factual knowledge and understanding of relationships. This chapter focuses on learning and remembering; the next chapter focuses on displaying remembered knowledge.

Memory and display are closely linked. If you can express information fully and in your own words, your knowledge of it is firmer and more long-lasting. In expressing the material, you become attuned to details and to distinctions, which in turn help you express the material in a richer and more engaged way. That is, learning to draw the picture and learning the details of what you are drawing are so interlinked as to be simultaneous. This process becomes all the more intense and successful if you are personally engaged in the picture, which you find both interesting and important.

The skills of being able to represent your knowledge in writing are at the heart of success in college. In some courses almost all your writing will be to reproduce information presented in lectures, textbooks, and other readings. The greater writing challenges of analysis, synthesis, problem solution, and argument, presented in the later chapters of this book, also require mastery of focused and efficient representation of facts and ideas from your reading. Success in doing these more complex forms of writing about knowledge depends on your ability to first represent that knowledge when and where you need it. You can't analyze the structure of political power in the ancient Mayan state without being able to describe the facts of Mayan life and theories of political power. You can't propose a convincing solution to an environmental problem unless you can present all the relevant data and clearly identify what causes what. More complex writing tasks build on more fundamental tasks.

Methods for Remembering

Psychologists still do not know exactly how memory works. In fact, memory seems to be many different kinds of things that work in different ways. Remembering an amusing story at an appropriate time in a conversation is not quite like your fingers remembering how much to turn up the volume dial on your radio, nor remembering where you left your keys, nor remembering your early childhood games. In college, however, you are concerned with a particular kind of memory — being able to reproduce information that you heard in lecture or read in your textbook under exam conditions and to recall relevant ideas and information as you are thinking through papers. Although psychologists do not fully understand how this “school memory”

Nineteenth-century phrenologists believed that each part of the brain housed specific kinds of thoughts.

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works, the active restatement of information in writing is definitely one of the things that improves retention. Each of the following proven methods of improving memory involves restatement of information and can involve writing as part of the restatement process.

1. *Using mnemonics.* Disjointed lists of information are hard to learn. Most people have only a limited capacity to remember items from a list that has no organization. This is why most of us can only remember a very few phone numbers — the few that are most important to us. Mnemonics (memory devices), such as the rhyme for the length of the months, words whose first initials spell out some concept (such as FACE and Every Good Boy Does Fine for the spaces and lines of the treble clef in music) or phone numbers that spell out words (such as 1-800-Buy-This) are frequently used to turn a disorganized list into a single coherent item.

2. *Chunking.* The grouping of separate items into larger units, known as chunking, allows you to put several related items in a single place in your memory. Thus your phone area code, although three digits, is usually remembered as a single number. Outlines and organized lists, paragraph clustering of information on a related topic, and other writing devices that pull information together in groups can help you chunk information and so remember it.

3. *Making meaningful patterns and connections among facts.* Organizing material within chunks in meaningful ways and then connecting chunks in larger meaningful patterns helps you remember more. Writing allows you to connect information in larger meaningful patterns. Combining written information and visual images is particularly useful.

4. *Developing generalizations.* As you organize, chunk, pattern, and connect information, you will be reflecting on what these various parts add up to. You will be putting the ideas and information into categories and formulating general statements that bring out the similarities among various pieces of information. The more you are able to identify and articulate these categories and generalizations, the more you will be able to create a sharply defined picture and to place and locate information within that picture.

5. *Learning by doing.* Your knowledge becomes more certain the more you use and apply that knowledge actively. Thus if you use economics principles to make decisions for a small business, you are more likely to remember them than if you are simply studying them from a book. Similarly, hands-on work with a computer helps you make sense of and remember the instructions in the computer manual.

6. *Repeating.* Repetition works for both intellectual knowledge and mechanical tasks. If you must remember some facts and phrases precisely, such as names of species or foreign language vocabulary, saying and writing the items repeatedly does help. However, if the meaning is more important than the exact words, it will help to repeat the meaning in different words. Thus the more you write about a poem or a series of historical events or chemical

processes, the better you are likely to remember them. This writing may be informal and personal as you think through a subject in journals or notes, or it may be more formal, as in summaries, descriptions, or essays. No matter what the format, the more you review the information in your mind, think about it, and write about it, the better you will know it. This simple and obvious point is often overlooked, but you will find that the material you wind up knowing best is likely to be precisely that material you have written about.

7. *Identifying personal interest and motivation.* When you are interested in some material, you attend both to its details and to the meaning it conveys. Writing about the information will increase this involvement by giving you more opportunities to locate the personal value and relevance of the material.

8. *Learning in the environment where you will use the information.* Learning the material in the way you are likely to need, use, or reproduce it will make the information easier to recall. For example, learning the parts of an engine as you are repairing those parts will help you associate the names with the activity. However, they will still be hard to remember when you are sitting with a blank page in an exam room. Therefore, whenever you have to remember something for a paper-and-pencil exam situation, it is best to practice remembering it in a practice exam situation.

All these ways of improving memory suggest that we know best what we actively use, especially if we make sense of the information as we use it and establish personal connections to it.

Writing for Reflection



Describe a course where you currently have to learn a large amount of factual information. What kinds of information do you have to learn? Up to now what methods have you used to remember this information? What do you feel has been most successful, and what least? Are there any new methods you would like to try?

 Exercises

REMEMBERING

1. *Using mnemonics.* According to the 25th Amendment, if the President of the United States should die or become incapacitated, seventeen elected or appointed public officials would, in turn, succeed to the presidency. Imagine that you will need to re-create this chart on a test, and create a mnemonic device (or perhaps several) based on one key letter or initial in each item on the list.

Vice President
Speaker of the House
President Pro Tempore of the Senate
Secretary of State
Secretary of the Treasury
Secretary of Defense
Attorney General
Secretary of the Interior
Secretary of Agriculture
Secretary of Commerce
Secretary of Labor
Secretary of Health and Human Services
Secretary of Housing and Urban Development
Secretary of Transportation
Secretary of Energy
Secretary of Education
Secretary of Veterans Affairs

2. *Chunking.* The following twenty-four common phobias are listed in James D. Laird and Nicholas S. Thompson's *Psychology* (Houghton Mifflin, 1992). The phobias are listed in alphabetical order; however, they would be much easier to remember if they were grouped into related categories (e.g., involving natural phenomenon, etc.). Prepare the list for easy memorization by creating four to six general categories, containing roughly equal numbers, into which the phobias can be processed in a chunked format:

Acrophobia — fear of heights
Agoraphobia — fear of open spaces
Ailurophobia — fear of cats
Algophobia — fear of pain
Arachnophobia — fear of spiders
Astraphobia — fear of storms, thunder, and lightning



Aviophobia — fear of airplanes
Brontophobia — fear of thunder
Claustrophobia — fear of closed spaces
Dementophobia — fear of insanity
Genitophobia — fear of gentiles
Hematophobia — fear of blood
Microphobia — fear of germs
Monophobia — fear of being alone
Mysophobia — fear of contamination or germs
Nyctophobia — fear of the dark
Pathophobia — fear of disease
Phobophobia — fear of phobia
Pyrophobia — fear of fire
Syphilophobia — fear of syphilis
Topophobia — fear of performing
Xenophobia — fear of strangers
Zoophobia — fear of animals or some particular animal

3. *Connecting.* Annotate the accompanying map, Figure 5.1, with the following information to help yourself remember facts about the territorial expansion of the United States:

1803: President Thomas Jefferson purchases the Louisiana Territory from France for \$15,000,000, effectively doubling the size of the country.

1810, 1813: The United States gradually occupies West Florida.

1818: An agreement with Britain fixes the border with Canada at the 49th parallel from Lake of the Woods, Minnesota, westward.

1819: President James Monroe purchases Florida from Spain for \$5,000,000.

1842: A dispute with Canadian lumbermen leads to the Webster-Ashburton treaty which fixes the border of Maine.

1845: President James K. Polk approves admitting the Republic of Texas to the United States despite conflicting Mexican claims to the territory.

1846: America annexes the Oregon Territory (Washington, Oregon, and Idaho) in an agreement with Great Britain.

1848: Following three years of war, the Government of Mexico cedes the land that would later become California, Arizona, New Mexico, Colorado, and Utah.

1853: James Gadsden negotiates the purchase from Mexico for \$10,000,000 of a strip of land along the border of Arizona and New Mexico to make a Texas-to-California railway possible.

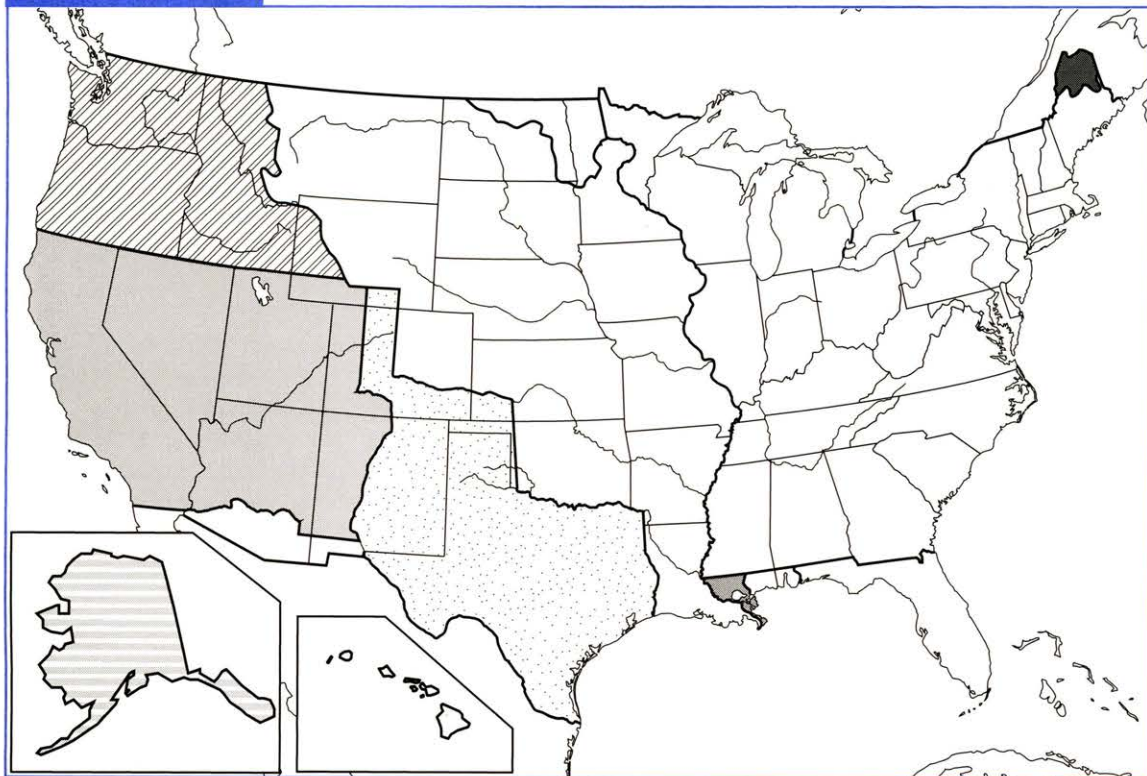
1867: In a move widely regarded as “Seward’s Folly,” U. S. Secretary of State William Seward agrees to purchase Alaska from Russia for \$7,200,000, or about two cents an acre.

1898: The United States Government agrees to annex the Republic of Hawaii.

4. *Connecting and generalizing.* Study the statistics in the table on page 102 about characteristics of students entering colleges in the United States from 1970 to 1994. As you study the statistics, list your observations about how the data connect and the generalizations you can form about the data. Then, after you put the table and your notes out of sight, write about two hundred words summarizing the information on the table and the interpretations you have made of that information.

FIGURE 5.1

Map of the United States of America



No. 294. College Freshmen—Summary Characteristics: 1970 to 1994

[In percent: As of fall for first-time full-time freshman. Based on sample survey and subject to sampling error; see source]

CHARACTERISTIC	1970	1980	1985	1989	1990	1991	1992	1993	1994
Sex: Male	55	49	48	46	46	47	46	45	46
Female	45	51	52	54	54	53	54	55	54
Applied to three or more colleges	115	26	29	37	36	34	33	37	36
Average grade in high school:									
A- to A+	16	21	21	23	23	24	26	27	28
B- to B+	58	60	59	59	58	57	57	57	56
C- to C+	27	19	20	17	19	19	17	16	15
D	1	1	1	-	-	-	-	-	-
Political orientation:									
Liberal	34	20	21	22	23	24	24	25	23
Middle of the road	45	60	57	54	55	54	53	50	53
Conservative	17	17	19	21	20	19	19	21	21
Probable field of study:									
Arts and humanities	16	9	8	9	9	8	8	8	8
Biological sciences	4	4	4	4	4	4	5	6	7
Business	16	24	27	25	21	18	16	16	16
Education	11	7	7	9	10	9	10	10	10
Engineering	9	12	11	10	8	10	9	9	8
Physical science	2	3	2	2	2	2	2	3	2
Social science	14	7	8	10	10	8	9	9	10
Professional	(NA)	15	13	13	15	18	20	20	19
Technical	4	6	5	3	4	4	3	3	3
Data processing/computer programming	(NA)	2	2	1	1	1	1	1	1
Other ²	(NA)	(NA)	16	15	16	17	17	17	17
Communications	(NA)	2	2	3	2	2	2	2	2
Computer science	(NA)	1	2	2	2	2	1	2	2
Recipient of financial aid:									
Pell grant	(NA)	33	19	22	23	23	23	24	23
Supplemental educational opportunity grant	(NA)	8	5	6	7	7	6	6	6
State scholarship or grant	(NA)	16	14	15	16	13	14	14	16
College grant	(NA)	13	19	20	22	22	24	24	26
Federal guaranteed student loan ...	(NA)	21	23	23	23	22	23	28	29
Perkins loan ³	(NA)	9	6	2	8	7	8	8	9
College loan	(NA)	4	4	8	6	5	6	6	8
College work-study grant	(NA)	15	10	10	10	11	12	12	13
Attitudes—agree or strongly agree:									
Activities of married women are best confined to home and family	48	27	22	26	25	26	26	24	25
Capital punishment should be abolished	56	34	27	21	22	21	21	22	20
Legalize marijuana	38	39	22	17	19	21	23	28	32
There is too much concern for the rights of criminals	52	66	(NA)	69	(NA)	65	67	68	73
Abortion should be legalized	(NA)	54	55	65	65	63	64	62	60
Aspires to an advanced degree	49	49	51	60	61	60	55	65	66

- Represents or rounds to zero. NA Not available. ¹1969 data. ²Includes other fields, not shown separately. ³National Direct Student Loan prior to 1990.
Source: U.S. Bureau of the Census, *Statistical Abstract of the United States: 1995* (115th edition). Washington, D.C., 1995. Page 187, table 294.

5. *Repeating.* Read the following Sonnet No. 73 by William Shakespeare and memorize it by repeating the lines until they are familiar. You may also be able to use chunking and other patterns. See how long it takes you before you are able to repeat the poem verbatim. Then wait a week and see if you can still recall all of the words.

That time of year thou mayst in me behold
When yellow leaves, or none, or few, do hang
Upon those boughs which shake against the cold,
Bare ruined choirs, where late the sweet birds sang.

In me thou see'st the twilight of such day
As after sunset fadeth in the west,
Which by and by black night doth take away,
Death's second self that seals up all the rest.

In me thou see'st the glowing of such fire,
That on the ashes of his youth doth lie,
As the death-bed, whereon it must expire
Consumed with that which it was nourished by.

This thou perceiv'st, which makes thy love more strong
To love that well, which thou must leave ere long.

Some Ways to Represent Knowledge to Yourself

By this point, you have already developed several ways to use writing to study: You probably use underlining, highlighting, marginal comments, reading notes, and lecture notes. In all these activities you take a pen in hand, make a decision, and make a mark. However, these activities may require no more than selecting what you think important. The following ways of using writing will help you organize material using a more active understanding.

Rewriting Notes in Various Formats

One simple way to make deeper sense out of your notes is to rewrite them in hierarchically ordered lists. That is, you list less important information underneath more important ideas and categories. Here are some formats typically used.

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- Traditional outlining uses levels of headings and indentation to show which ideas and facts are most important and which are subordinate.

OVERALL TOPIC

- I. First main idea
 - A. Subordinate idea
 - 1. Details
 - 2. Details
 - B. Subordinate idea
- II. Second main idea

- A hierarchical tree diagram, Figure 5.3A, divides topics into parts that expand downwards on the page.
- Network diagrams, Figure 5.3B, cluster information around key concepts that are then linked up.

FIGURE 5.3A

Hierarchical Tree Diagram

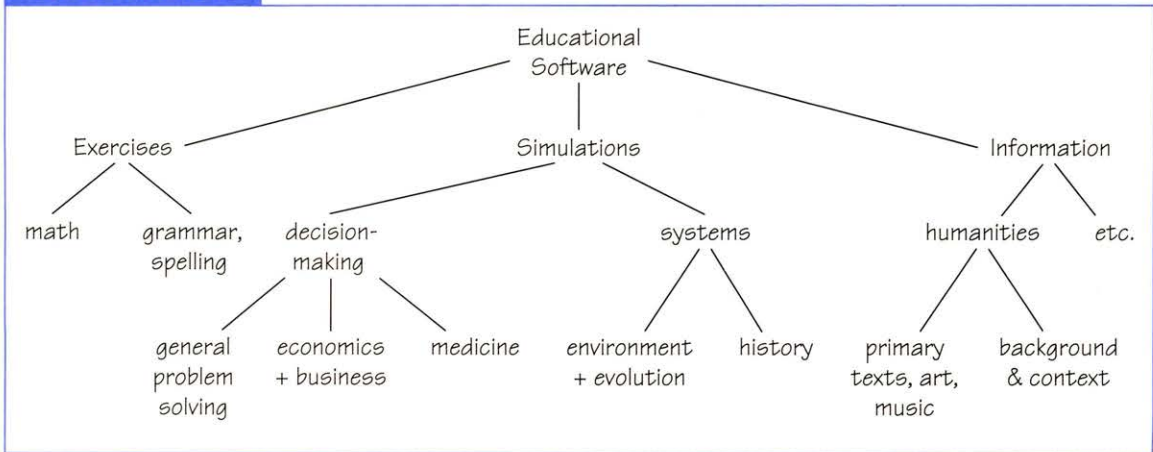


FIGURE 5.3B

Network Diagram

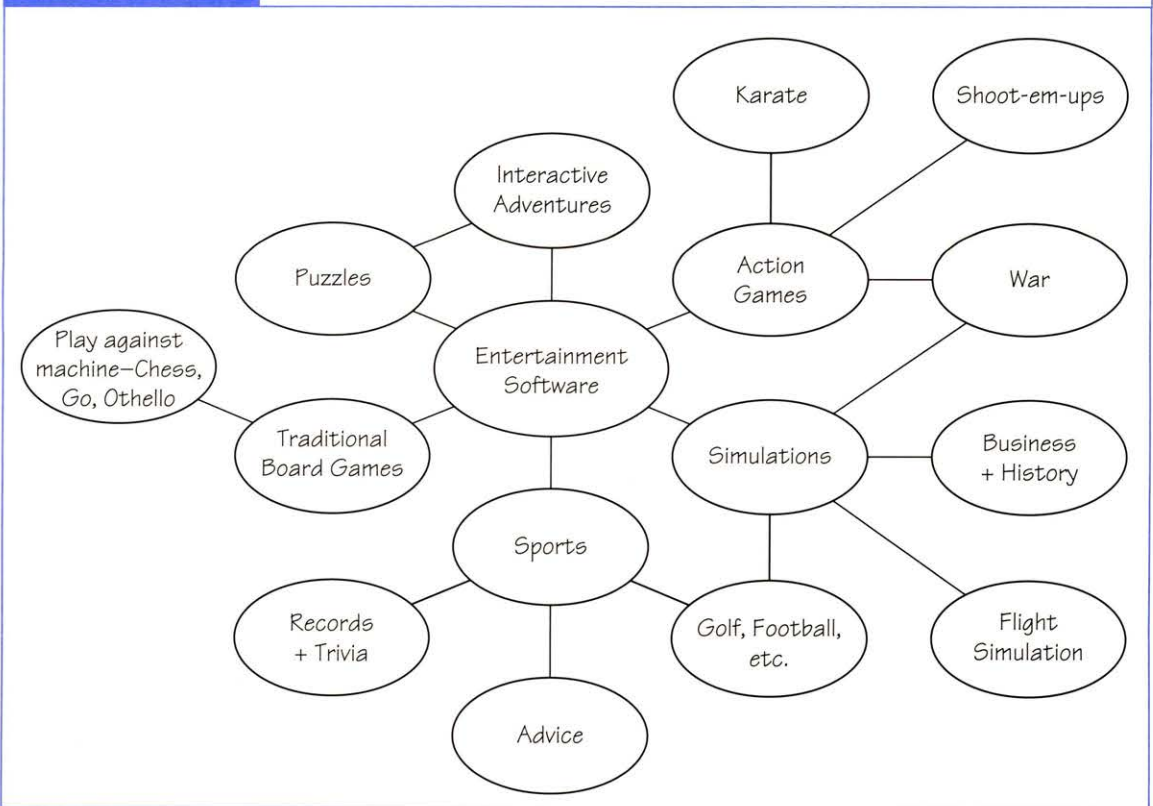


FIGURE 5.3C

		Branches of Government		
		Legislative	Executive	Judiciary
Separation of Powers and Checks and Balances	Legislative functions	Makes laws	Can veto laws	Reviews laws for constitutionality
	Executive powers	Can override vetos	Enforces laws	Issues injunctions Can review executive action
	Judicial decision making	Impeach Creates or eliminates courts	Grants pardons Nominates judges	Interprets laws

Adapted from Ken Janda, Jeff Berry, and Jerry Goldman, *The Challenge of Democracy*, 4/e. Copyright © 1995 by Houghton Mifflin Company.

- Charts and matrices, Figure 5.3C, arrange information in categories defined by intersecting columns and lines.

Keeping your notes on a computer also gives you many options for re-ordering and organizing. If you take notes on any word processor, you can easily rearrange them to create logical categories or form an outline. Other programs allow you to set up tree structures or idea networks and move parts around. Hypertext programs like Hypercard and Storyspace give you great flexibility in organizing notes in different ways.

Personal Summary Statements

Simply writing a paragraph identifying the overall meaning and most important information you learned in a lecture or after reading your assignments will help you make sense of your material. By staying in the lecture room for a few minutes after class to write some summary statements or by not getting up for a study break until you write a few sentences of overview, you can ensure that you are constantly reflecting on what the information means and how it fits together. You can set aside part of your notebook for these study journals, which you can then use to help orient yourself to more detailed notes and textbook annotations when you go back to study.



REVIEWING WRITING PROCESSES

Writing Summaries for Yourself

1. *Read for the general sense* of the overall passage.
2. *Identify the gist* or main idea for each section, ranging from several paragraphs to a subheaded unit in a textbook. Use this statement to write a paragraph topic sentence or a heading for an outline format.
3. *Select major points* or details that elaborate this gist. In the remaining sentences of the paragraph or in the subordinate parts of the outline, show how these details relate to the main point.
4. *Restate each point* in your own terms for your summary, adding more detailed information from the text.
5. If the textbook has a beginning of the chapter preview or end-of-chapter summary, use these to help guide your attention, but locate where in the text each point is made.
6. *Identify the source* you are summarizing so that when you are using your notes later to write, you can give credit to your sources (see page 112) and avoid plagiarism (see pages 112–114).

You can also write study journals along with reading journals, as discussed in the previous chapter, perhaps setting aside left-hand pages for response, or simply alternating types of entry but marking clearly which is which. Increasingly, professors in many courses are assigning summary and response journals (see pages 81–83) to engage students more actively. Here are some examples from a History of Western Civilization course:

Student Sample

The following journal entry by Jane Eames is in response to a passage in the beginning of Plato's *Apology*. The first paragraph of the journal entry is a brief summary of the passage, and the second is a personal response.

Summary:

In the assigned passage of *The Apology*, Socrates is trying to explain to the judges why some of the people of Athens, led by Meletus, dislike him enough to bring him to trial. Socrates begins by explaining that he never considered himself wise or intelligent, so he began to seek out people who had a reputation for wisdom. He found a learned politician and, after talking to him for some time, discovered that the man was not really wise, but that he only thought himself wise. Socrates knew that he himself was not wise, but he felt that he

was wiser than the politician because he was at least willing to admit that he knew nothing. Socrates repeated this procedure with the great poets and artisans of Athens and discovered that none of them were really wise and that the only true wisdom in life is to know that you know nothing.

Personal Response:

I don't think that Socrates is being very sincere in this speech. He is pretending that he is foolish and unwise, and he makes a big deal out of saying that he knows nothing, but I really get the idea that he thinks he knows a great deal. The way he was going around telling people that they don't know anything reminds me of a guy I knew in high school who thought he was a great debater. Every time anyone said anything, this guy would jump in and argue the point until everyone around him got mad and left. This guy wasn't very popular, and he never seemed to realize that people weren't impressed by his debating ability because he was always using it against them. It sounds like Socrates was a royal pain in the neck to the people of Athens, and, while I don't agree that he should have been put to death for what he did, I can certainly see why people didn't like him very much.

Thinking
About
Student
Writing



1. According to the summary, what is the key issue Socrates is concerned with in this passage? What is Socrates' point?
2. What aspect of the passage does the student Jane Eames respond to? What point does the student make about this passage? How does the student develop her point? Do you find her response warranted?
3. Based on your reading of the summary, what other possible responses might students have to Socrates' argument?

 Exercises

REPRESENTING KNOWLEDGE

1. Using either the current catalogue of your college or a departmental handout, create a concept network or flowchart that illustrates the requirements for normal progress toward graduation during each of the years that you will be in school.
2. Obtain a copy of two health insurance policies — one of which should be the student insurance plan at your college — and read them both carefully. Create a map or diagram that illustrates important comparisons between the two plans. Include such factors as amount of coverage, deductibles, out-of-pocket expenses, and situations covered or not covered.
3. Write a summary and response for the first chapter of this book.
4. From a textbook for another course, choose a selection of several pages that you will have to know well for an upcoming quiz or exam. Write a summary of the passage, and then write a response.
5. From your personal library, choose a book that has an important personal, philosophical, or ethical meaning for you. From this book select a three- to five-page passage. Write a summary and response, identifying the important meaning of the passage and then explaining its personal value to you.
6. The following passage is taken from Plato's *Crito* and contains the attempt of one of Socrates' disciples to convince him to break out of jail and flee Athens rather than accept his death sentence. Read the passage carefully and write a journal entry following the two-part summary response pattern.

SOCRATES: Do the laws speak truly, or do they not?

CRITO: I think that they do.

SOCRATES: Then the laws will say: "Consider, Socrates, if we are speaking truly that in your present attempt you are going to do us an injury, for, having brought you into the world, and nurtured and educated you, and given you and every other citizen a share in every good which we had to give, we further proclaim to any Athenian by the liberty which we allow him, that if he does not like us when he has become of age and has seen the ways of the city, and made our acquaintance, he may go where he pleases and take his goods with him. None of our laws will forbid him or interfere with him. Anyone who does not like us and the city, and who wants to emigrate to a colony or to any other city, may go where he likes, retaining his property. But he who has experience of the manner in which we order justice and administer the state, and still remains, has entered into an



implied contract that he will do as we command him. And he who disobeys us is, as we maintain, thrice wrong; first, because in disobeying us he is disobeying his parents; secondly, because we are the authors of his education; thirdly, because he has made an agreement with us that he will duly obey our commandments; and he neither obeys them nor convinces us that our commands are unjust; and we do not rudely impose them, but give him the alternative of obeying or convincing us; that is what we offer, and he does neither." These are the sort of accusations to which, as we were saying, you, Socrates, will be exposed if you accomplish your intentions; you above all other Athenians.

Suppose now I ask, why I rather than anybody else? They will justly retort upon me that I above all other men have acknowledged the agreement. "There is clear proof," they will say, "Socrates, that we and the city were not displeasing to you. Of all Athenians you have been the most constant resident of the city, which, as you never leave, you may be supposed to love. . . . Moreover, you might in the course of the trial, if you had liked, have fixed the penalty at banishment; the state which refuses to let you go now would have let you go then. But you pretended that you preferred death to exile, and that you were not unwilling to die. And now you have forgotten these fine sentiments, and pay no respect to us, the laws, of whom you are the destroyer; and are doing what only a miserable slave would do, running away and turning your back on the compacts and agreements which you made as a citizen. And, first of all, answer this very question: Are we right in saying that you agreed to be governed according to us in deed, and not in word only? Is that true or not?" How shall we answer, Crito? Must we not assent?

From Walter J. Black, trans., "Crito," in *Five Great Dialogues of Plato* (New York: Walter J. Black, 1942) 75–77.

Overview Summaries

At appropriate times in a course, such as at the end of a major topic or before periodic exams, an overview and summary of what you have learned can help you pull a coherent picture together. After skimming your textbook and notes, try to come up with a few main statements about the material. Then think how to organize those main ideas in some sequence or pattern. Use this sequence of statements to provide topic sentences for each of the paragraphs, which you then can elaborate with some of the more specific details from your coursework. In this way you will develop a personally meaningful framework for thinking about the course material. Be sure to use connecting

phrases at the beginning of each paragraph to show how the ideas connect and relate to the overall themes of the course. As an introductory or concluding paragraph, it is useful to come up with an overview statement.

The following is a sample of a unit summary by Mike Caruso, a student in an Introduction to Economics course:

The current unit in economics is on Supply, Demand, and the Price System. The unit discusses the way that, in a free market, the laws of supply and demand ensure that the price of economic goods will always move toward a fair market equilibrium.

The principal term for this unit is market, which is defined by the textbook (Economics, 2nd ed., by William Boyes and Michael Melvin) as "a place or service that enables buyers and sellers to exchange goods and services (p. 52)." Markets can be small-scale, like the local farmer's market, or international in scope, like the world stock markets—but they all operate on several basic economic principles including the laws of supply and demand.

Demand is an abstract term that describes the amount of a good or a service that people are willing to purchase at every possible price, whereas the quantity demanded refers to the demand for a product at a specific price. Similarly, the supply of a product refers to the amount of a good or a service that producers are willing and able to offer at every possible price, whereas the quantity supplied refers to the amount of that product that producers will offer at a given price.

Both supply and demand functions can be plotted on a graph, with different prices producing differences in both the consumer's willingness to buy, and the producer's willingness to sell, a given economic product. The laws of economics dictate that, as prices increase, producers' desire to supply that product increases, while consumers' desire to purchase it decreases. The fair market price for any good or service, then, is at the equilibrium point where the producers are willing to supply at that price the same amount that consumers demand. When the price of an item goes above this equilibrium, the result is a surplus; when the price goes below the equilibrium, the result is a shortage. Although markets are not always, at any given time, in perfect equilibrium, surpluses and shortages work to

ensure that, in the long term, items are priced at their fair market level.

According to Professor Morton, these rules will always work as long as a market is free. However, as governments and societies intervene in the free market, there arise two types of controls that interfere with market functions. Price floors, such as government subsidies on agricultural products, establish a minimum price for certain goods, thus creating a surplus. Price ceilings, such as rent-controlled apartments in high-rent areas, establish a maximum price which suppliers are not allowed to exceed. In both cases, additional government action is necessary to ensure that the economy functions smoothly despite the additional controls.

Since these summaries are for your use alone, you may be somewhat schematic about them, using lists and outlines and whatever else may help. The important task is to bring out the connections, logic, and overview. Being explicit helps develop thinking and memory. The effort to write an overview in full form is worthwhile because you then make a full set of connections and coherences.

At exam time such summaries provide an overview of the course, topic by topic. Think of these summaries as a minitextbook for a few years from now — what you will want to remember from this course or for a friend who does not have access to the course materials. Indeed, if you are part of a study group, which we will discuss below, such topic or book summaries are useful to both yourself and your group. Comparing summaries is a good way to develop one's perceptions.



REVIEWING WRITING PROCESSES

Revealing Sources and Avoiding Plagiarism

Plagiarism is the crime of passing off as your own another person's written work — their unique ideas as well as their exact words. The term comes from the Latin word *plagiarius*, which means to kidnap. This false representation is of specific concern in different contexts. In commercial publishing, where people make money from unique written texts, plagiarism is equivalent to stealing, and is punishable in law by both criminal and commercial penalties. Here it is likely to become an issue primarily concerning financially successful creations, such as popular songs and movie scripts or best-selling books. In academic and professional careers, where one's credentials depend on what one has written, plagiarism amounts to lying about one's own accomplishments and stealing another

person's. When plagiarism is uncovered in such cases, it means loss of professional credibility and often loss of one's job.

In student life, where original thinking and work are constantly encouraged and student work is always being evaluated, passing off another person's work as your own is a form of cheating. If you are caught plagiarizing, you may be punished by failing grades or even expulsion from college.

The answer is not to avoid other people's words and ideas. You learn from other people's words and ideas. As students you constantly depend on textbooks and other readings to inform you about the ideas and facts other people have developed so you can use them. If you hear a good idea or a way of phrasing things that appeals to you, those ideas and phrases are likely to stick in your mind and mix in with your own ideas and your own ways of saying things. Your professors also expect you to be able to repeat and use the ideas and information from a course. Much of learning to write, as well, is based on imitating models and building a large repertoire of things to say and ways of saying them.

In fact, when you write in college you are very much in the middle of a world of *intertextuality* — that is, each piece of writing (or text) is connected to many other surrounding texts (see page 231). Whenever you write, you are surrounded by the words of others. You are producing just one statement as part of a whole communication system, where each statement responds to the statements around it. Particularly when you are summarizing a text, answering a question based on information from a textbook, reporting library research, or discussing someone else's writing, you are working very closely with the words, ideas, and information of others. You *have* to use their words and ideas and information in your writing.

So how do you avoid plagiarism? You must always identify the source of your information, ideas, and phrasing when you are working directly from someone else's words.

For library research papers, this means providing bibliographic references (see page 240) for special ideas and information, although if certain ideas and information are well known and appear in several sources, you can assume they are common knowledge and do not belong to anyone in particular, so you do not have to attribute them to one particular source. If you also use the exact words from any of your sources, you need to put those words in quotation marks or block quotes (see page 240). The accurate citation of material from sources also helps establish that you have done solid library research and are basing your work on good sources. In addition, your own contribution stands out clearly if all the source-based material is clearly marked.

If you are writing a paper discussing someone else's ideas or writing, you must always identify whose work you are discussing, where that work appeared, and what ideas and information were presented in the source. If you repeat any words from the source, you must put those words in quotation marks. This accurate identification sets it apart from your own commentary.

If you are summarizing someone else's writing, you must always mention the author and text and the exact pages you are summarizing. You may do this by mentioning the source of the summary ("... as Robert Kennesaw points out on pages 53–58 of *The Truth of Life . . .*"), or an end tag ("summarized from Robert Kennesaw, *The Truth of Life*, pages 53–58"). You need to do this even if the summaries are just for your own notes, because when you return to the notes you need to be able to remind yourself where they are from. Moreover, if your summary takes special words or phrases from the original, you should note those also by quotation marks. These quotation marks also help identify characteristic ways the original author had of expressing ideas. The biggest cause of inadvertent student plagiarism, particularly in research papers, comes from relying on notes from other sources without noting the source or exact quotations; later, when students write the papers, they forget the sources they used and mistake their notes for their own writing.

Even if you use only assigned readings and the textbook to answer questions, it still helps to identify the source you are relying on, especially if you have done several different readings in the term. The authors might have different views or cover different aspects of the questions. Demonstrating to the teacher that you understand the differences among the works will also show how carefully you have followed the work of the course. If, however, you have been only using a single textbook, and everyone understands that all information for the course comes from that textbook, then you may not have to repeat this fact.

Some sources do not have to be cited, however. This includes ideas, general knowledge, and phrasing that you are not directly discussing or relying on for a particular piece of writing but that still influence your writing. These materials have worked their way into your mind and into your way of expressing yourself. They have become so mixed in with other things you have read, learned, and thought that they no longer directly reflect any one other writer. It is not plagiarism to draw on all you know to make an original statement. If, for example, you have been reading many authors to help you think about justice, you do not need to mention them all in every paper you write on current social problems. You should only mention those that help you make your point clearly.

Don't be afraid to use what you have learned. Just be careful to give credit to those writers who you are directly relying on.

Questions and Answers

Often on exams and essays you are given questions that ask you to bring together information in a new way. In that case making up in advance and answering for yourself the kinds of questions you might expect is a powerful

study technique. Writing the questions makes you think through the material at least as much as writing the answers.

You can write questions by applying the information and ideas of the course to new problems of social or personal importance. Questions may also reflect the interests and concerns the teacher has expressed in lectures and discussions. You may look at previous exams to develop models for your questions, paying attention to such things as the level of generality the teacher asks about, the kinds of concepts asked about, the kinds of examples used and problems posed, and the typical phrasing of the questions. Try to frame the kinds of questions your instructor might ask.

Questions are also very useful for study groups, especially if they are in anticipation of the kinds of questions teachers are going to give. Some instructors even give out a list of questions or issues that may turn up on exams to help individual students and study groups focus their efforts.

Here are some examples of one student's questions and answers for a business class. The student prepared these questions as a way of studying a textbook chapter on theories of employee motivation in a corporate environment.

Questions on Business by William Pride, Robert Hughes, and Jack Kapoor (Houghton Mifflin, 1993), pp. 231-57.

1. **What is employee motivation, and how can managers influence motivation?**

Motivation is defined as "the individual, internal process that energizes, directs, and sustains behavior." Motivated employees are more satisfied with their jobs, more loyal to their supervisors, and more productive for their companies. Employers cannot produce a high level of motivation in employees, since it is by definition an internal process. Ultimately, employees must motivate themselves. However, good managers can increase an employee's "morale," or satisfaction with their job and their working environment, and by doing so encourage their employees to become more motivated.

2. **What is the Hawthorne Effect, and why is it important to businesses?**

The Hawthorne Effect is a phenomenon first documented by Elton Mayo at Western Electric's Hawthorne Plant in Chicago. Mayo was attempting to study the effects of lighting on employee productivity. He established an experimental group of workers and increased their lighting, which, predictably, led to an increase in productivity. However, when Mayo decreased the lighting of a second group, he found that their productivity also increased. The conclusion he reached was that it was not the lighting that determined productivity, but the fact that the work-

ers were participating in an experiment that made them feel important. The Hawthorne Effect is an important consideration in business because it shows that human factors are just as important to worker productivity as mechanical factors.

3. What is Maslow's Hierarchy of Needs, and how does it relate to employee motivation?

Maslow's Hierarchy of Needs is an attempt by psychologist Abraham Maslow to arrange the various needs and desires of most human beings into five basic levels: physiological needs (food, water, sleep), safety needs (the need for physical and emotional security), social needs (need for love, affection, and a sense of belonging), esteem needs (need for respect, recognition, and praise), and self-realization needs (need to grow and develop in unique and personal ways). According to Maslow, people work to satisfy the physiological needs first and then, once those needs are satisfied, they move up to higher-level needs. The most important need at any one time is the most basic (lowest-level) need that has not been satisfied; however, once a low-level need has been satisfied, it ceases to become a viable motivator. Maslow's hierarchy is important to employers who want to know how to motivate their employees even after basic physiological and safety needs have been met.

Study Groups

Study groups of three to six classmates give you the opportunity to compare notes about what you are learning. By meeting regularly throughout the term, you can talk about what you are learning. You gain the advantage of each other's insights, and as one or another of you run into difficulties and pressures, you can provide mutual support.

Study groups work best when each person is assigned to prepare a summary, a discussion of a topic, or a question for each meeting. When you are aware that others are relying on you, you think more carefully and deeply. Just by contributing to the group you will learn more than from working on your own, no matter what else you learn from the members themselves. Moreover, by comparing ideas you can identify different perspectives, clear up misunderstandings, and discuss further the meaning of valid differences. Different members of your group, because of their different interests, knowledges, and skills, can help you see more about your subject and the variety of perspectives that may be taken.

Electronic communication can help make group studying easier because it allows you to share study notes and ask each other questions easily. It is not

difficult to send messages to all members of the group simultaneously, and you may even be able to set up an alias (which allows you to send mail to the whole group through a single address). In this way you can get the benefit of working with people, gaining their support, and feeling what it means to contribute actively even if you are at home or cannot arrange actual meeting times. There is often much to be gained in the spontaneity and immediacy of face-to-face meetings, especially if you are having a hard time “getting into” the material. The presence of other people concerned with learning the same material can help each of you focus on the material and engage with it.

Exercises

WRITING AND REMEMBERING

1. Write a unit summary for one of your classes. Include relevant information from both the textbook and the course lectures, integrated in a way to show that you have thought about the material and begun to make important connections.
2. Research a career or profession that you hope to enter and prepare a brief summary of the current state of that career. Include such facts as amount of education required, availability of employment, starting salary, and opportunities for advancement.
3. Think of a class you are currently taking that requires a large amount of recall. Imagine that you have been hired by the other students in the class to teach a tutorial seminar. Design a memorization strategy that takes into account the unique nature of the material. Feel free to use any of the strategies listed in this chapter, in any combination, and any others that you might think of.
4. Write a series of questions and answers for the following section from a textbook on broadcasting in America. The passage describes recent changes in technology that have affected the broadcasting industry.

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Getting Involved Electronically



Locate computer programs that might help you study for any course you are currently taking, such as vocabulary and grammar practice programs if you are taking a language course or a multimedia database if you are taking a history course. Try out whatever programs are available in your college computer lab or through any other source. In a few paragraphs describe the programs and how useful you think they will be in helping you study. If you have not found any useful programs, describe what you think might be an ideal program to help you in a subject.