

Chapter 8:

WRITING &

RESEARCH

I can understand why this book has a chapter on the Internet. But why does a freshman seminar text contain a chapter on writing and research skills? Aren't those topics covered by other courses?

The Four LTL Thinking Tools—especially the *questioning* techniques—have unique applications for two areas of writing: writing well-organized paragraphs and writing research papers.¹ LTL's *Writing to Answer Questions* techniques offer solutions to writing problems that you won't find in a standard writing course. You'll learn a simple and powerful method to check the organization and clarity of your paragraphs—without using the complex terminology of syntax and grammar. And our research paper methods will save you time, give your writing focus, and help you get past the “writer's block” that afflicts writers at all levels of proficiency.

¹ There are many other writing skills you'll need to master in college, such as description, argumentation, comparison/ contrast. These and other writing skills will be covered in your writing courses.

WRITING TO ANSWER QUESTIONS

Many students have a hard time expressing what they've learned on paper in an organized way. In this chapter, you'll learn to apply some of the LTL skills that you've been practicing to improve your writing skills.

You've begun to see your lecture notes and books can be viewed as a series of answers to questions. This also applies to your own writing. Everything you write—in fact, all consecutive thought—is a series of answers to implied questions. Questions will help you get “unstuck” when you're trying to write something that's difficult for you; they'll help you organize information and break up writing assignments into manageable tasks.

USING QUESTIONS TO WRITE GOOD PARAGRAPHS

Well-written paragraphs have a single main idea, stated in a topic sentence. The main idea is actually an answer to an *implied question*. We call it a *Topic Sentence Question*.

For example, in the paragraph below, the main idea concerns social mobility. The paragraph answers the implied question, “*What is social mobility?*”

Social mobility is a change in a person's economic position. The change may be either upward or downward. For example, if a rich heiress becomes a poor sanitation worker, she has become socially mobile in a downward direction. However, if a man whose father was a janitor becomes a doctor, he achieves upward social mobility.

Topic Sentence Questions

While there are many kinds of questions, most paragraphs answer the questions *Who? What? Why? How?* Here are some examples of this:

Who?

Jack Hammer was the greatest detective of all time. (*Who was Jack Hammer?*)

What?

A present is something given voluntarily without compensation. (*What is a present?*)

Why?

Networking is a useful career-search skill because... (*Why is networking a useful career-search skill?*)

How?

To obtain a driving license, you must pass both a driving and a written test. (*How do you obtain a driving license?*)

In Your Words: **Writing Topic Sentence Questions**

Working with another student, write Topic Sentence Questions that ask *Who? What? Why? How?*

Write your sentences here:

Paragraph Structure

How is paragraph structure related to Topic Sentence Questions?

- ◆ *Every well-constructed paragraph answers one major question.*
- ◆ *Most paragraphs answer Who? What? Why? How? questions.*

After you've found your Topic Sentence Question, you'll need to fill in the details that *answer* that question. For example:

- ◆ If your topic sentence says you're going to talk about how an internal combustion engine works, your paragraph will give the details of that process.
- ◆ The paragraph *won't* discuss the differences between an internal combustion and a rotary engine—that's another question, which requires another paragraph. ("What are the differences between an internal combustion and a rotary engine?")

Most poorly written paragraphs include information that doesn't answer the topic sentence/question. The writer tries to fit too much information into one paragraph. For example, imagine you're writing a brief paper on how you spent your summer vacation. In one paragraph, you're answering the question, "What I like about summer." You start by talking about your activities in the summer, then say that you also like summer because you don't go to school then. You continue by saying what you don't like about school. *In the "paragraph," you tried to answer two questions: What you like about summer and what you don't like about school. Since you're writing about two questions, you'll need two paragraphs, not one.*

Some Topic Sentence Questions can only be answered by asking and answering a series of smaller questions. For example, if you were writing a paragraph about Abraham Lincoln ("Who was...?"), you might find it useful to ask and answer minor questions like: *What did he do? Where did he do it? When did he do it?* The main point is to *identify the major question you're asking in a paragraph and stick to information that answers the question.*

Concluding Sentences

Not all paragraphs need a definite end. But the *concluding sentence* (the last sentence) of a paragraph can serve two purposes:

- ◆ It *summarizes* the paragraph's main idea.
- ◆ It can provide a useful *transition* to another paragraph.

Examples from Paragraph Skeletons

1. *Concluding sentence summarizing the main idea:*

First sentence:

M. Smith's book on Chinese cooking will certainly become a classic in its field.

(The middle of the paragraph has details showing why the book is so good.)

Concluding sentence:

This fresh approach to cooking will be an inspiration to cooks everywhere.

In this paragraph, the concluding sentence *summarizes* the paragraph's main idea.

2. *Concluding sentence used as transition to the next paragraph:*

First sentence:

The teacher who is unaware of her student's hearing or visual problems can damage the child's ability to learn.

(The middle of the paragraph has details showing how an unaware teacher can damage these students.)

Concluding sentence:

This instructional practice can lead to the child's becoming a "behavior problem."

The *concluding sentence* provides a *transition* to the next paragraph in this essay—which might then define a "behavior problem."

NOTE: Each of these concluding sentences starts with "this," which refers to ideas presented in the paragraph. (Notice that each "this" does not stand alone: We wrote, "*This fresh approach*" and "*This instructional practice*." Using "this" alone creates a vague reference and can confuse the reader.)

Steps for Writing Good Paragraphs

1. Write a Topic Sentence Question.
2. Write sub-questions if needed.
3. Write the key words (one key word or phrase for each point you plan to make) that will answer your question.
4. Using your sub-questions and key words, write the paragraph.
5. Write a concluding sentence.
6. Check your paragraph: *Does the information answer your Topic Sentence Question?* If you've begun to answer another question, you'll need a new paragraph.
 - a. Modify your paragraph. (Take out the information that doesn't answer your original question.)
 - b. Write the Topic Sentence Question that covers this information. You can use it as the first sentence of your next paragraph.

STUDENT SAMPLE:

A Paragraph That Answers One Central Question

Here's a well-written paragraph, where all the information answers the paragraph's main question. *Underline three key word points in this paragraph that are the major answers to this question:*

What will participation in organized sports do for a child? First of all, the child will develop a sense of discipline. The fact that the child shows up on time every day for practice shows some amount of discipline, and taking orders from coaches and doing things that he basically doesn't want to do develops this sense of discipline more fully. Participation also develops a sense of teamwork. Assuming the coach is competent, he will stress the importance of working together as a unit. Perhaps the most important trait that a child can carry with him from sports to adulthood is a sense of pride! Nobody wants to be on a losing team and the child's pride will force him to work harder, so that even if the team does lose, the children can take pride in the fact that they gave their best effort. Discipline, teamwork, and pride. These are not the only elements needed for a productive adult life, but they are a step in the right direction.

STUDENT SAMPLE:

A Paragraph That Does Not Answer One Central Question

Contrast the paragraph you just read with the one below. As you read this “paragraph,” you’ll notice that the student began to raise a series of questions but did not develop them. Each implied question has been *numbered* by the instructor correcting the student’s writing. The student tried to answer the question, “*What effects did the shuttle disaster have on the future of NASA?*”

¹Man must learn from trial and error. A contemporary example of such a fact is the NASA crash.² This crash shocked the world as well as myself. My disbelief pressed my curiosity to learn more about it. I listened to the news with uninterruptable attention, but when my curiosity was satisfied, I sat back realizing the fatal consequences for future missions.³ The pressure on NASA officials to explain and prove the accidental mistake will push their potential to the limit.⁴ The press snatches and sniffs for untold information in order to gain viewers; they will question anyone anytime to complete such a task. The press will even put more attention on future missions waiting for the next opportunity to do it all over again. But for now, the press will focus the attention on the families of the dead astronauts. The world suffered for such pioneerism, but⁵ the families suffered in ways we cannot know. Their grief cannot be helped by the idea of missions in space.

In Your Words:

Finding “Buried” Topic Sentence Questions

Part I. Working with another student, write the questions that are buried in the “paragraph” on NASA. We inserted numbers in the students’ writing to show you where the topic shifts.

1. _____
2. _____
3. _____
4. _____
5. _____

Part II. Read the paragraph below. *Insert numbers when a new “buried” question is raised.*

People work harder on meaningful activities. They become creative and look for solutions to problems they consider worth solving. Have you ever tried to work on something you did not like and thought was not worth your time? But paying people well also has an effect on their work. Of course, money is not so important to many people. Some people get their rewards from helping others. Many people think that teachers and social workers can be paid less because they just enjoy helping others. They do not understand that teachers and social workers have bills to pay, too.

Assignment

1. Take five Topic Sentence Questions that you wrote in class (*Who? What? Why? How?*) and develop them into paragraphs. Bring all your work to class.
2. Look over the papers you’ve received from other courses. If your instructors tell you that there’s a problems with your writing, re-read your papers and write the questions that each paragraph answers in the margins of your paper. If a paragraph has been marked “confusing,” check to see if you’re trying to answer more than one question in it.

If you find “buried” Topic Sentence Questions, write them out and list the key words, and use them to answer each question—that is, to develop new paragraph(s). Bring your work to class.

✓ THINK ABOUT THIS

If you find it hard to write a specific paragraph, it may be you’re trying to fit too much information into that paragraph. You may need to break it up into two paragraphs, each answering a sub-question of your original topic question.

WRITING TERM PAPERS

When Ron is assigned a term paper, he usually goes to the library and finds as many books as he can on the topic. When reading books, he reads diligently, taking notes as he reads. But when he begins to write, it's hard to fit all this information into the paper.

Ron uses a *traditional* approach to writing term papers. On the following pages we'll describe the LTL approach—an easier, more effective way to write term papers. The method has four steps: *Choosing a Topic*, *Writing Questions*, *Going to the Library*, and *Writing the Paper*.

1. Write questions and sub-questions.
2. Guess at possible key word answers.
3. Put your questions and matching key words on 5" x 8" cards.
4. Go to the library to verify your key word answers.
5. Begin writing.
 - a. Arrange your 5" x 8" cards in a logical order.
 - b. Find a sub-question you want to answer (not necessarily the beginning of the paper).
 - c. Write a paragraph from this sub-question and your key words.
 - d. Find the next sub-question you want to answer.
 - e. Take a Creative Break. (See page 100.)
 - f. Write the next paragraph, using questions and key words.
 - g. Etc. (Repeat the process until your paper is completed.)

In more detailed form, the process looks like this:

1. Choosing a Topic

It's important to choose a topic that you know something about, can find information on, and get credit for. First, write a series of major questions, each of which could be a topic for a term paper. How do they score on the criteria we've mentioned for choosing a topic?

Once you've chosen a general topic, narrow it until you have a question that can be answered in 10–15 pages. For example, imagine that you decide to write a paper on drugs. You'll need to limit your topic: A paper on drugs may be too broad. But a paper on one part of the topic—for example, the abuse of drugs by some groups—may fit within a term paper.

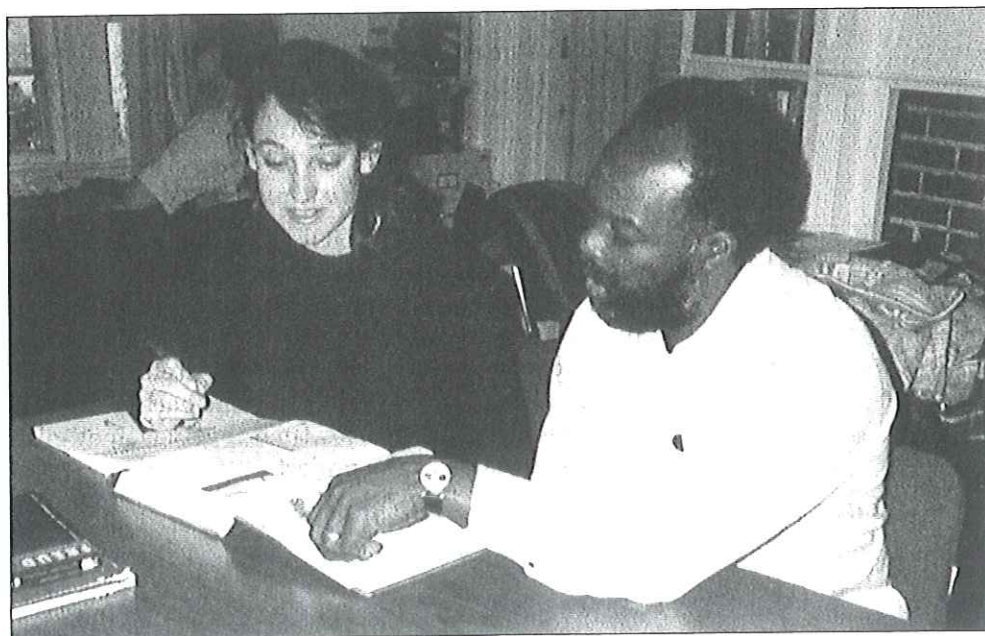
If you used a Question Chart like this one, you'd be able to limit your paper to a topic you could handle.

	Prior Knowledge	Availability of Information	Interest in Subject	Uniqueness of Subject
<i>Why do different drugs attract different people?</i>				
<i>How have different civilizations used psychedelic drugs?</i>				
<i>What is the relationship between street crime and drug use?</i>				

In Your Words: **Choosing a Topic**

Pretend you're choosing a topic on this paper. Each potential topic is represented by one of the three questions. Write numbers in each cell: 4 for "most", 1 for "least." Add up the numbers. The question with the highest numbers across all categories is the topic you should choose for your paper.

After you've chosen your topic, the preparation and writing process really begins.



2. Writing Questions

- a. Write several major questions which your paper will have to answer. For example, a paper on drug abuse might ask such major questions as *"What are the effects of different drugs when they are abused?"* *"Which groups of people tend to abuse different drugs?"* (e.g., marijuana, cocaine, heroin, barbiturates)
- b. Take a Creative Break. Do something else—different work or whatever relaxes you.
- c. When you come back to your term paper questions, write sub-questions under the main questions. For example, you might write, under the effects of drug abuse, *"What are the physiological effects of drug X?"* *"What are the effects of abusing drug X on a person's relationship with others?"* Write as many sub-questions as you can. Take a break, come back, and write some more sub-questions.
- d. If you think you know some partial answers to these questions, write them down in key words and phrases.
- e. Put all your questions and key words on 5" x 8" cards.

3. Going to the Library

Since you know what you want to find out, your job is fairly easy. Check with the reference librarian, look at the index to your field of study, or do a computer search for a relevant topic. When you find the right section of the library, don't just take out a pile of books. *Look in the index of each book to see if the book answers questions you've asked.*

4. Writing the Paper

You should have 5" x 8" cards with questions and key word answers—some from your own ideas, others referring to what you've read. The writing process looks like this:



- a. *Take a sub-question* (not necessarily the first—leave the introduction until later) and the key words you generated. Write a paragraph answering your question.
- b. *Find the question you think should be answered next.*
- c. *Take a Creative Break.* You'll be thinking about your answer—without consciously trying—during your break. If you start your break with a question in mind, your subconscious will sort out and create connections between the different items without effort on your part. So when you come back from your break, you'll not only save time, but you may also have a new vision of the project.
- d. *Write a paragraph answering the next question.*
- e. *Continue in this way until the paper is finished.*

In Your Words:

Writing The Paper

Imagine you're writing a paper on the media (TV, radio, newspapers) for a communications course. What are some of the main questions you'll need to answer in this paper? Working with another student, write your questions in the space provided:

1. _____

2. _____

3. _____

Write sub-questions between your main questions.

One or more of your questions might call for a Question Chart. For example, if you asked "*How has the media influenced American life?*" you might want to compare different kinds of media. Your chart would then look something like this:

	<i>TV</i>	<i>Radio</i>	<i>Newspapers</i>
<i>What kind of entertainment is provided by this medium?</i>			
?			
?			

Write additional questions in the spaces provided in the left-hand column boxes. Add key words if you know some of the answers now.

Empower Yourself

Finding What You Need When Writing Term Papers

Imagine these scenarios:

Scenario one:

You're a diligent, motivated student. You take initiative and find lots of information on your topic in the stacks of the library. You put in an enormous amount of time and hard work. With good intentions, you really cover a lot of ground. You read many articles, and even a couple of books. But when you read, you're on "automatic pilot": You're under time pressure, feel like you don't have time to think, and rush to read all you could find on the topic—without actively looking for answers to your own questions.

When you try to write your paper, you run into a road block. There's too much information, and you can't fit it together. You feel frustrated, thinking that all your hard work was wasted. In fact, you feel penalized for being good. How motivated will you be to start your *next* paper?

Scenario two:

As an LTL student, you have a method to be conscious, and deliberate about decisions of what's right in a given situation, and what doesn't fit. When you do research for a paper, you start by generating questions and use the questions to make choices about what's relevant. You check to see if you've answered all the questions. You take feedback, noticing which questions distract from your goal; you correct or eliminate them accordingly. You might add new questions, and then decide to change or shift the direction of the whole paper, but in any event you are *conscious* of the pros and cons of your decision. If more is needed, your search is focused on that need. If you start going in the wrong direction, you can retrace your steps and re-start from where you digressed—so that you can always progress along the line of greatest advantage.



In Your Words:

Finding What You Need When Writing Term Papers

Have you ever had a frustrating research and writing experience, as in scenario one? If so, describe it here:

What would you have done differently if you had known about LTL?



Student Voices

David Tadros

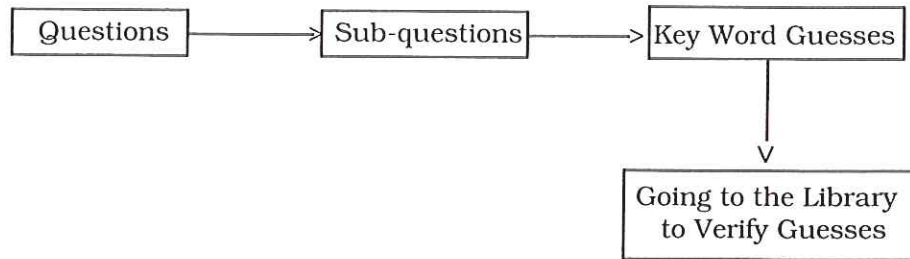
I went to the most over-populated high school in New York City. Everything was crowded and fast-paced. Learning to Learn did a lot to help me adapt to college. First, with LTL I learned how to use my time in a new way. I had so much reading to do, so much homework of every kind. LTL helped me break down what I had to do into small parts. So I felt less overwhelmed and was able to take hold of my work. Then for chemistry and calculus, LTL showed me how to use past problems as models and create problems of my own when I studied for exams.

The LTL writing methods—writing to answer questions—gave me a clear way to write research papers. Before LTL, I used to have all these different ideas, couldn't organize them, and just tried to stick them all into a paper. With LTL, I spend most of my time writing questions and answers, and I know exactly what I'm writing about. Writing a paper is easy now, like putting together pieces of a puzzle.

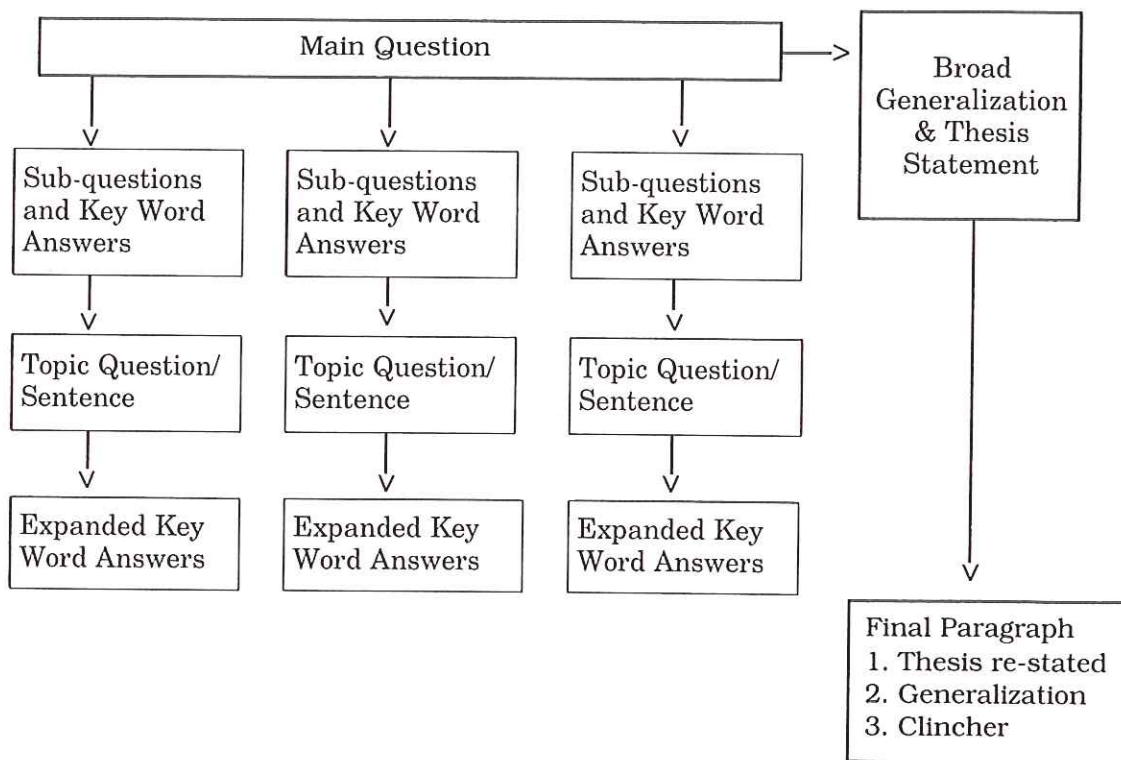
Using a Writing Flow Chart

The flow chart below will help you through the writing process. It will show you what progress you're making on your paper as you write it, using the LTL steps to guide you.

Preparing to write the paper:



Writing the paper:



THE EDITING CHECKLIST FOR REVISING ROUGH DRAFTS

After you've written a rough draft, review it to check:

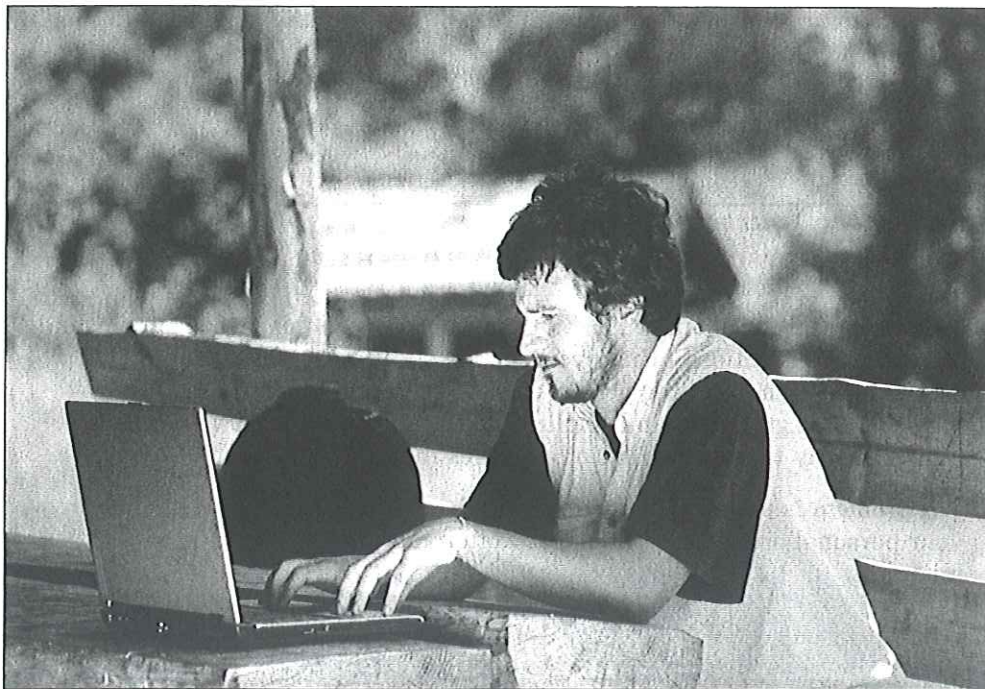
Organization

- ◆ Do you use an introductory paragraph that contains your paper's thesis—the broad concepts and a summary statement of your paper's main idea?
- ◆ Does the first paragraph arouse the reader's interest?
- ◆ Does each paragraph answer only one main question and its sub-questions?
- ◆ Do you give supporting evidence, details, and examples in all paragraphs?
- ◆ Are there concluding or "bridging" sentences at the end of each paragraph?
- ◆ Is the main idea restated in the final paragraph?

Sentence Structure

Read your paper aloud to answer these questions:

- ◆ Does each sentence make sense?
- ◆ Does each sentence contain one complete thought?
- ◆ Are there any missing words?
- ◆ Are there unnecessary, repeated words?
- ◆ Can you simplify your writing? Can you eliminate some words and still convey your message?
- ◆ Are sentences short and choppy? If so, can any sentences be combined?
- ◆ Are any sentences too long? If so, can they be broken down?



EDITING CHECKLISTS

Editing checklists are a list of errors you often make. Use your checklists to edit your writing.

Steps to Better Grammar

1. Look for patterns of grammatical errors in your writing. Do you often use overrun sentences? Double negatives? Do you use “be” incorrectly? (“I be thinking” instead of “I am thinking.”)
2. Do you write “it’s” when you mean “its?” “Your” for “you’re?” Do you write “the students work”, instead of “the student’s work?”
3. If you use a pronoun, does it agree with the noun it refers to? (“The student said... ~~They~~ He meant that...”)
4. Did you insert periods and commas where needed?

Steps to Better Spelling

1. Look for spelling-error patterns in your writing.
2. Use your own spelling checklist when you write.
3. When you write on a computer, make sure to check your writing with a Spell-Check program.
4. If you spell phonetically (the way words sound), try this:
 - ◆ Find the correctly spelled lyrics of a song you like.
 - ◆ Memorize the words to the song until you can “see” the words in your head as you sing, hum, or think of the song.
 - ◆ Compare the spelling in the words you write to the words in the song.
 - ◆ Use these words in your writing by picturing them in your mind.
 - ◆ As you get better at this, add other songs that you like.

Empower Yourself

Solving Personal Problems With Editing Checklists

We’ve just talked about using Editing Checklists to improve grammar and spelling. We mentioned that everyone has a different pattern of grammatical and spelling errors—so everyone has a different Editing Checklist for grammar and spelling. In the same way, no two people make exactly the same kinds of mistakes in daily living.

A problem is easier to solve if it’s predicted. You might have an area in your personal or work life where you often make your own kind of mistakes.

In Your Words:

Solving Personal Problems With Editing Checklists

Working with another student, brainstorm your own Editing Checklist of errors that you tend to make in your personal life or on the job. Make up an Editing Checklist of these errors.

Use the space below for your checklist.

WHAT IS TRUE?

THE ISSUE OF VERIFICATION

The issue of verification is important—for doing research and for your own writing. When you research information, ask yourself questions about whether the author provided enough evidence to support his/her conclusions. (And ask yourself the same questions about your own writing.)

What evidence does the writer present?

What kinds of support or evidence does the author present? Look for: historical facts; statistics; observations; reasons; explanations; analogies; examples; scientific evidence.

How valid is the evidence presented by the writer?

Is the author's support or evidence valid (just, sound)? Look for faulty evidence or support. Based on your own knowledge of the subject, decide if the author's evidence is valid. Do you see any places where the author's evidence is faulty? If you don't know enough about the subject, do you see places where the author did not present enough information to make his/her case?

WHAT IS NOT VALID RESEARCH?

THE ISSUE OF PLAGIARISM

Plagiarism is taking another person's words or ideas and passing them off as if they were your own. Plagiarism is another form of stealing—in this case, it's called "intellectual theft." Like other forms of theft, plagiarism has serious consequences. In college, a student caught plagiarizing will fail the course, or will be expelled from the college. There are even federal laws against plagiarism: A person who prints another person's words and ideas without permission may be subject to prosecution under federal copyright laws.

Does plagiarism apply to all academic products? No. It's okay to write ideas from someone else without referencing them when you're taking a test. But when you're writing a paper, if you're using another person's ideas, you must cite the author and text where the information came from. If you're quoting someone's actual words, it's important to use quotation marks, or set off the quote by indenting it, and cite the specific bibliographic reference, including the page number.

Cheating can have important personal consequences, too. If you submit work that's not your own, it will hurt your academic growth. Writing is one of the most important skills you will gain at college; learning to write well will help your entire career. If you don't do your own research and writing, you're hurting yourself, academically and personally. Not only that: If you establish a pattern of trying to "get away with it," it will catch up with you later, in graduate school or on the job, in a way that can ruin your future.

INFORMAL WAYS TO USE THE LIBRARY

Spend some time in the library when you don't have to be there.

- ◆ Explore. Wander around the stacks in different sections, browsing through books in the same way you would in a bookstore.
- ◆ Are there listening booths where you can sit back and listen to jazz?
- ◆ Find corners of the library where you feel comfortable—where you'd like to study or write, or just be alone with yourself.
- ◆ Are there conference rooms where you can get together and study with friends?
- ◆ Do you know where the photocopy machines are?
- ◆ What are the library hours?

In Your Words:

Your Questions About The Library

What are some ways you'd like to explore the library? What questions do you have about what's available in your college's library?

[The page contains faint horizontal lines suggesting writing space.]

THE LEARNING TO LEARN® SCHOLARSHIP CONTEST

1. Write an essay of 800 words or less on the topic, "How the LTL Academic Skills Helped Me Succeed in College."
2. All essays must be accompanied by a list of the Topic Sentence Questions and key word answers that you used to construct your essay.
3. The deadline for submitting essays to your instructor is December 10.
4. A winning essay will be chosen from each college where LTL is used for freshman seminar classes. The author of the winning essay at each college will become a contest Finalist and will receive an LTL Achievement plaque.
5. Finalists' essays will compete for the National LTL Scholarship Award.
6. A national winner will be chosen from among the Finalists' essays. Each winner will receive \$1000 in tuition expense reimbursement. The winner will be announced in March.



Student Voices

Cindy Ramkissoon

LTL has helped in a lot of ways. First, LTL really helped me get a handle on managing my time. With the LTL methods, I became more aware of how I was using my time, what I wasted time on—and the weekly Task Management Checklists kept me on task and helped me put things in perspective.

With Reading to Answer Questions, I've learned how to actively work with the material I read. That helps me understand what I'm reading and makes it a lot easier to remember what I read—it kind of presses it into my mind. And Writing to Answer Questions helps me write organized research papers. With the LTL research-paper steps, I break all my research and writing down into parts, and I have all the examples and research at my fingertips. That helps me write papers more quickly—and I think they're better quality, too.

LTL has definitely given me more control academically and made me more confident as a student.

THE WRITING GAME

As a class, choose a topic from the news that all class members are familiar with.

Form two teams and a panel of 5 judges.

Each team generates questions and key word guesses which might form the basis for a term paper.

The winning team is judged best in question quality and interesting key word guesses.

Discussion and Review

How do this chapter's LTL skills illustrate the Four LTL Thinking Tools?

The LTL Journal

Continue your journal of your thoughts and feelings. How can the skills in this chapter help you reach your personal goals?

