

# **Mastering the Textbook**

**from the Augsburg College Academic Skills Center**

## I. INTRODUCTION

Reading a textbook efficiently requires the skills of concentration, reading speed, and comprehension. Because college students are normally assigned a great deal of textbook reading, they need to design some type of system that will enable them to cover the reading assignments in a reasonable amount of time and, more importantly, to remember the more significant concepts. Let us begin with a list of SIX READING MYTHS:

### Myth 1: I Have to Read Every Word

Many of the words that are used in writing grammatically correct sentences actually convey no meaning. If, in reading, you exert as much effort in conceptualizing these meaningless words as you do important ones, you limit not only your reading speed but your comprehension as well.

### Myth 2: Reading Once Is Enough

Skim once as rapidly as possible to determine the main idea and to identify those parts that need careful reading. Reread more carefully to plug the gaps in your knowledge.

Many college students feel that something must be wrong with their brainpower if they must read a textbook more than once. To be sure there are students for whom one exposure to an idea on a basic course is enough, but they either have read extensively or they have an excellent background or a high degree of interest in the subject.

For most students in most subjects, reading once is not enough. However, this is not to imply that an unthinking Pavlovian-like reading is necessary to understand and retain materials. Many students automatically regress or reread doggedly with a self-punishing attitude. ("I didn't get a thing out of that paragraph the first time, so if I punish myself by rereading it maybe I will this time.") This is the hardest way to do it.

Good reading is selective reading. It involves selecting those sections that are relevant to your purpose in reading. Rather than automatically rereading, take a few seconds to quiz yourself on the material you have just read; then review those sections that are still unclear or confusing to you.

The most effective way of spending each study hour is to devote as little time as possible to reading and as much time as possible testing yourself, reviewing, organizing, and relating the concepts and facts, mastering the technical terms, formulas, etc., and

thinking of applications of the concepts-in short. Spend your time learning ideas, not painfully processing words visually.

### Myth 3: It Is Sinful to Skip Passages in Reading

Many college students feel that it is somehow sinful to skip passages in reading and to read rapidly. We are not sure just how this attitude develops, but some authorities have suggested that it stem from the days when the Bible was the main book read, savored and reread. Indeed, the educated person was one who could quote long passages from these books from memory.

Today, proliferation of books and printed matter brought about by the information explosion creates a reading problem for everyone. Furthermore, much of this printed material offers considerably less than Shakespeare or the Bible in meaning or style. You must, of course, make daily decisions as to what is worth spending your time. On, what can be glanced at or put aside for future perusal, and what can be relegated to the wastebasket.

### Myth 4: If I Skim or Read too Rapidly, My Comprehension Will Drop

Many people refuse to push themselves faster in reading for fear that they will lose comprehension. However, research shows that there is little relationship between rate and comprehension. Some students read rapidly and comprehend well; others read slowly and comprehend poorly. Whether you have good comprehension depends on whether you can extract and retain the important ideas from your speed. If you “clutch up” when trying to read fast or skim and worry about your comprehension, comprehension will drop because your mind is occupied with your fears and you are not paying attention to the ideas that you are reading.

### Myth 5: There Is Something About My Eyes That Keeps Me from Reading Fast

This belief is nonsense, assuming that you have good vision or wear glasses that correct your problems. Of course, if you cannot focus your eyes at the reading distance, you will have trouble learning to skim and scan. Furthermore, if you have developed the habit of focusing too narrowly and looking at word parts, it will be harder for you to learn to sweep down a page of type rapidly.

Usually it is your brain, not your eyes, which slow you down in reading. Your eyes are capable of taking in more words than your brain is used to processing. If you sound out words as you read, you will probably read very slowly and have difficulty in skimming and scanning until you break this habit.

## II. HOW TO READ A DIFFICULT BOOK

Students sometimes find that the book that they open with high hope of enlightenment turns out to be beyond their grasp. Actually, any book intended for the general reader can be understood if you approach it in the right way. What is the right approach? The answer lies in one important rule of reading: **YOU SHOULD READ A BOOK THROUGH SUPERFICIALLY BEFORE YOU TRY TO MASTER IT.**

Look first for the things you can understand; refuse to get bogged down in the difficult passages, footnotes, arguments, and references that escape you. There will be enough material which you can immediately grasp—even if it is only 50 percent or less—that will enable you to understand the book in part.

A variation on the method of giving a book a first superficial reading is the technique of skimming. You can get, often with surprising accuracy, a general sense of the contents of a book.

**For skimming or reading, the following steps are a good way to begin giving a book the once-over.**

1. Look at the title page and preface and note especially the sub-titles or other indications of the scope and aim of the book or the author's special angle.
2. Study the table of contents to get a general sense of the book's structure; use it as you would a road map before taking a trip.
3. Check the index for the range of subjects covered or the kinds of authors quoted. When you see terms listed that seem crucial, look up the passage. You may find the key to the author's approach.

Now you are ready to read the book or skim through it, as you choose. If you vote to skim it, look at the chapters that contain pivotal passages or summary statements in their opening or closing pages. Then dip into a page here and there, reading a paragraph or two, sometimes several pages in a sequence. Thumb through the book in this way, always looking for the basic pulse beat of the matter.

One word of warning: if you use this approach and start to skim through a book, you may end up discovering that you aren't skimming it at all. You are reading it, understanding it and enjoying it. When you put the book down, you will realize that the subject wasn't such a tough one after all.

### III. VOCABULARY: AN ONGOING PROCESS

Vocabulary is an ongoing process. It continues throughout your life. What you have done is to slow your effective method of learning vocabulary down to a snail's pace. When you were younger, you learned something day in and day out. You kept squeezing every moment of the day into a new and different learning situation. You continually asked questions and drove yourself to learn more. Look at the following example

- \* at the age of 4 you probably knew 5,600 words
- \* at the age of 5 you probably knew 9,600 words
- \* at the age of 6 you probably knew 14,700 words
- \* at the age of 7 you probably knew 21,200 words
- \* at the age of 8 you probably knew 26,300 words
- \* at the age of 9 you probably knew 29,300 words
- \* at the age of 10 you probably knew 34,300 words
- \* college sophomore: you probably knew 120,000 words

What this tells you is the more you learn, the more vocabulary words you will know. No matter what your age, you must continue to learn. Words are "symbols" for ideas. These ideas formulate knowledge and knowledge is gained largely through words.

Some suggestions which may help you:

- \* Read. The more you read, the more words you will come into contact with.
- \* Use newly learned vocabulary in your everyday communication (writing, speaking).
- \* Become familiar with the glossary of your textbooks.
- \* Become familiar with the dictionary. Understand the pronunciation keys, as well as why there are multiple meanings for words.
- \* Try to learn 5 new words a day. If you know these words, use them in your communication process. Without using these new words, it is a waste of your time.
- \* Read books from fields other than your major. Read books that interest you, and concentrate while you read.

#### IV. STRATEGIES TO IMPROVE READING SKILLS

1. Because many of the words in a typical sentence actually convey little meaning, you need not concentrate as much on them as you do on the important words; if you focus on unimportant words, you seriously limit your reading speed, as well as comprehension.

2. For most students, reading a textbook chapter once is NOT enough. SKIM the chapter once as rapidly as possible to DETERMINE THE MAIN IDEAS and to determine those sections that need more careful reading. GOOD READING IS SELECTIVE READING: rather than automatically rereading, take a few minutes to quiz yourself on the section you have just read and reread only those sections still unclear to you. THE MOST EFFECTIVE WAY TO SPEND EACH STUDY HOUR is to devote as little time as possible to reading and as much time as possible to TESTING YOURSELF, ORGANIZING THE INFORMATION, RELATING THE FACTS AND CONCEPTS, AND APPLYING THE CONCEPTS. In other words, SPEND YOUR TIME LEARNING IDEAS, NOT PAINFULLY PROCESSING WORDS VISUALLY!

3. Sir Francis Bacon once suggested that some books are to be nibbled on and tasted, some are to be swallowed whole, and a few need to be chewed on thoroughly and digested carefully. In other words, it is all right to skip sections of a textbook chapter; the idea that you cannot skip but have to read every passage is old-fashioned. You must make daily decisions as to what is worth reading carefully; for example, if a paragraph contains a concept you deem important and you understand, yet the author continues to repeat the concept, skip! If the author continues giving examples of a concept you understand, once you know a few examples, skip! If the author is developing a concept you already know, skip!

4. Reading speed for college textbooks should be flexible; 250 words per minute is the norm. If the text material is easy for you to understand, you may read it at 400 words per minute, or higher. You want to avoid reading everything at the same reading speed! How do you increase your speed? The best way is to force yourself to consciously read faster. Do not simply choose the speed that seems comfortable; always be aware that you are moving your eyes at a speed that is a bit uncomfortable. If you practice on a regular basis, you will soon find yourself building up a degree of comfort. Keep in mind that research supports that there is little relationship between reading SPEED and COMPREHENSION. GOOD COMPREHENSION DEPENDS ON

WHETHER YOU CAN EXTRACT THE IMPORTANT IDEAS, NOT ON HOW FAST YOU READ. If you “clutch up” when trying to read faster, you will drop your comprehension because your mind is occupied with your fears rather than paying attention to the ideas that you are reading.

5. Here are some key strategies to follow in skimming and reading the chapter for main ideas:

a. Read the chapter title carefully and try to convert it to a question (for example, “Social Organizations” becomes “Name and define key social organizations.”) This gives you a focus for skimming over the chapter and deciding which sections are probably important.

b. Always look for key words that signify important ideas, words such as “causes of,” “effects of,” “in contrast,” “comparing,” “consequently,” “pros and cons,” “therefore,” “the important conclusion is,” etc.

c. Look carefully at each of the subheadings, as they also point to the main ideas of the chapter (remember, if you concentrate on the details and ignore the main ideas, you will have MORE difficulty retaining the information you read).

d. Because authors of textbooks want you to recognize the important concepts, they use the following: subheadings, italics and boldface, concepts that are repeated in the chapter or in the following chapters, and lists of points arranged numerically or by letters (the lead-in might be something like “The three most important consequences of the Marshall Plan were....”). These tend to be test questions.

6. The last, and perhaps the most important, strategy is ACTIVE READING. If you place your head in your hand, slump over, and just read until you get to the end of the chapter, you are reading passively. An ACTIVE reader uses the margins of the textbook to highlight, underline, and annotate (that is, writes brief summaries, key words, or phrases) as he or she reads. Active reading keeps your mind on the important concepts and improves your concentration.

## V. TEXTBOOK READING TECHNIQUES

Research suggests that there are several systems for reading and studying textbook chapters. In this handout you will find three described; you may follow any one of them to the letter, or you may wish to combine them. The key point is to discover the system that you are comfortable with and one, of course, that produces the results you are after!

No matter which system you choose, you must remember a key principle: in order to improve your studying of textbook material, you must aim to improve your concentration, reading speed, and memory of what you have read. Your goal should be to avoid the habit of reading the material once and then forgetting what you have read a day or two later. Far too many choose to use what we call the “reading, forgetting, rereading” method, which usually results in stress, tiredness, and low grades. THE FOLLOWING SYSTEMS USE WHAT WE CALL THE “READING, RECITING, AND REVIEWING” strategy, which will work to keep the major concepts in your long-term memory rather than, as cramming does, in your short-term memory.

### **THE OARWET METHOD**

A simple way to remember this technique is to use the acronym OARWET. If you are beginning to row across a lake in a boat, the first thing you must do is get your OAR WET! Each of these letters represents a step in one of the most efficient techniques for remembering the factual material from your textbook reading:

**OVERVIEW:** Begin by taking an overview of the chapter, glancing over the chapter headings and subheadings throughout the chapter to see the main points that will be developed in each section. Also, if the chapter has one, read the summary at the end of the chapter. This survey should not take more than two minutes and show the three to six main ideas around which the chapter is organized. Recognizing the PATTERN of the chapter improves memorization and understanding.

**ASK:** Based upon your quick reading of the chapter headings, what questions should you be able to answer when you have completed reading this chapter? Select about six questions that focus on what you believe to be the most important parts of the chapter. Write out these questions in your lecture notebook directly below the date for the next class lecture. These questions will help you focus on the most important material from

the chapter. Be sure to review these questions weekly so as to refresh your memory as to the answers. Keep in mind that reciting the answers aloud will imprint the answers more quickly in your long-term memory.

READ: Once you have written out your questions, you are now ready to read the chapter in order to answer the questions. As you read the chapter in detail, you may discover other questions that seem important. Simply add them to your list: however, be realistic about how many questions will cover the chapter's most important ideas (if you can answer six to ten questions about each chapter, you probably have a good grasp of that chapter). Usually it makes no sense to read the entire chapter at one sitting without pausing, since you will not be able to comprehend it in such a large chunk. A good method is to group subheadings together into one good study session of about one hour. Then take a break and come back for another one-hour session, either later in the day or on the next day (but definitely before the next lecture). Of course, longer chapters may require two-hour sessions.

WRITE: When you complete one section of the chapter, go back to its beginning and review the material. Then write in the margin a test question or a recall word that summarizes the most important information in the section. Two to three questions per section should cover the most important material. Keep in mind that test questions given by your instructors TEND TO FOCUS ON THE FOLLOWING: definitions, items that are in **boldface** or *italics*, information that is numerically listed, information that is illustrated in tables or graphs, and information that is repeated or referred to again. Underline the key concepts of each section, that is, the answers to each of the questions you write in the margin. Be sure not to underline the complete sentence; underline only the key concepts (because in order to underline the key concepts, you have to understand the idea, and this helps you to begin memorizing the information). When you have completed adding questions to one section, then go on to the next section. Repeat the process until you have completed the chapter.

EVALUATE: After you have read the chapter and completed writing test questions, or recalling words, sit back for a few minutes to evaluate the material. This step can be very important: think over the information you have just read and try to find a positive basis for learning

the material. Avoid negative feelings about the material because negative messages block memorization! Often, textbook reading will seem like a dry and uninteresting chore; the information seemingly has no relation to your life or interests. It is unlikely, however, that in your reading you will never come across an idea that intrigued you. During the evaluation step, take a few minutes to find some positive reason for learning the most important ideas of the chapter (for example, will these ideas help you to at least understand more about the world you live in? Or will they help you to figure out your own values? Or will they serve to test your own abilities to think critically, a skill valuable to any employer?)

TEST: The final step of the OARWET process is to test yourself to ensure that you have mastered the material. To do this, go back to the beginning of the chapter, cover the text with a blank sheet of paper, and in your own words recite the answer to each test question you wrote in the margin. When you can answer the question satisfactorily in your own words, so that you are sure that you understand the answer, move on the next question. If you cannot answer the question, look back over your underlining, review it until you remember it, ask the question again, and answer it, preferably reciting it aloud. Continue this process until you answer each of the questions written in the margins of the chapter. This entire process should take about one to two hours. If, because of chapter length or difficulty, it is taking longer, then break up your study sessions in blocks of about 1 1/2 to 2 hours. Keep in mind that it is ineffective to study the same subject for more than 2 hours at one sitting (after 2 hours of the same subject, the memory does not operate efficiently). Reciting will place the information in your long-term memory, where it will remain for 4-8 days.

You must review your questions and answers at least once a week to keep the information in your long-term memory. Set aside a review period each week to go over ALL of your questions, reciting the answers. Remember, if the text contains a lot of important data, you may need to review twice a week.

### **THE QUESTION / ANSWER METHOD**

One of the most effective techniques for learning a textbook chapter is called the Question and Answer Technique. It is particularly effective in helping students to avoid

the mistake of underlining too much of the chapter material. Here are the basic steps to follow:

**SURVEY THE CHAPTER:** Read the chapter title, then read quickly all of the headings in the chapter. If the chapter contains a summary, read that as well. Do the same for any study questions that may come at the end of the chapter. Reading the summaries and the study questions helps you to determine what ideas, terms, or facts are considered most important by the author. Surveying also helps to make the initial imprint in the memory so that you will learn the information more quickly as you read the chapter. You should now make the determination as to which of the ideas contained in the chapter you will want to learn more about. In other words, specifying in advance why you will read the chapter helps you to increase your motivation and your understanding of the material when you read it. Finally, it helps you to remember the material later.

**READING AND MARKING:** Once you have surveyed the chapter, and have decided what specific information you want to learn more about, it is time to return to the chapter beginning and to begin reading. Follow these basic steps:

1. Quickly read the introductory material, if any, of the chapter.
2. Stop when you get to the first subheading. Determine if the section is important. If so, underline the subheading and write one of the following question words: WHO, HOW, or WHAT. Write the question word in the margin next to the subheading. Now read the sections, looking for the answers to your question.
3. When you find sentences that provide answers, underline the key concepts and write ANS in the margin next to the material that answers the question suggested by the subheading. Here is an example:

EXAMPLE 1:

What? OPERANT BEHAVIOR AND CONDITIONING

ANS. Operant behavior. Operant behavior may be defined as behavior that is not made to happen by any specific stimulus. B.F. Skinner demonstrated many of the rules of operant behavior. He

used a simple animal in a cage. On one side was a small horizontal bar. A cup was built into the wall beneath the bar. Otherwise the cage was bare. On the outside of the cage was a mechanical device. It worked automatically. It delivered a pellet of food into the cup each time the bar was pressed down.

EXAMPLE 2:

What? POPULATION

ANS. Increase in numbers. The population of the United States has been increasing significantly. Specific data show how much it has risen over the years. In 1850, there were approximately 23,000,000 Americans. By 1950, only one hundred years later there were over ANS. 150,000,000 Americans. Today there are over 235,000,000 Americans. By the year 2000 there may be over 267,000,000.

ANS. The increase in numbers raises questions. Will there be enough food to eat? Enough room to live? Enough oil and other resources to meet future needs? Will the environment be destroyed?

Who? Who are they? In 1973, a census survey shows several data about

ANS. the American people in terms of their origin. First a wide variety of countries represent the national origins of many Americans. For example, Great Britain was listed as the origin of 14.4 percent of the American

ANS. people. Germany was listed for 12.5 %. Ireland was listed for 8%. Spain was noted as the origin of 4.5%. Italy was listed for 3%. France was listed for 2.6%. Poland was the origin of 2.5 %., and Russia was listed for 1.1 % of the total population of the United States. Second, citizens of these national origins made up around

ANS. 49 % of the total population of the United States. Third, 41.6% of the American people were classified as “other.” “Other” includes those of mixed national origin, Afro-Americans,

Asians, American Indians, and countries not mentioned above. Only about 8.6% did not report. Our nation then may be thought of as mainly Anglo-Saxon, but these figures show that most Americans are

ANS. from other than Anglo-Saxon stock.

In terms of religion a vast majority of Americans declaring a religion are Protestant. As of 1985, Protestantism accounts for 65% of religious affiliation. Catholicism accounts for 26%. Judaism accounts for 3%.

ANS.

4. Because definitions are so often included on tests, if the answer you underline is a definition, write DEF in the margin
5. If the important information is contained in a list, circle the words that tell you what the list is about. Number the items in the list if they do not already have numbers or letters. If the list is also an answer to the question word next to the heading, write ANS in the margin next to the words which introduce the list. In this case you would not have to also underline the answer in the text.

**RECITING AND REVIEWING:** When you have completed reading the chapter and have marked each important subheading section, you are now ready to study the material. As with the OARWET method, you return to the beginning of the chapter and read aloud each of your questions. Then look away and recite the answers. If you can not remember the answer, look at the text and read what you have underlined. Be certain that you understand it. Read it over several times. When you know it, return to the question, ask it aloud, and then recite the answer out loud. When you can recite it in your own words correctly—and you understand it—move on to the next question. When you have completed the chapter in this way, the information will be in your long-term memory. You will need to review the material in about seven days. For courses where the information is complex, you may want to review twice a week rather than once a week.

### **THE PROR METHOD**

This technique has proven less time consuming than the others. THE PROR technique focuses more on learning the material in such a way that you can think critically about it rather than simply memorizing it. It helps get information into your long-term memory, but also helps you to keep it there. Here are the steps in the PROR method:

**PREREAD:** Begin by reading the title of the chapter: think about what you already know about the topic. Read the headings and subheadings and again think about what you already know about the various subject headings. Formulate study questions that seem important and that focus on areas in which you have very little or no familiarity with the material. Be certain that you have a clear idea of what the chapter is about.

**READ:** Before beginning to read, set a goal in terms of how much you will complete in one sitting. Begin reading section by section, underlining key words. Make brief notations in the textbook margin (target specific kinds of information, such as definitions; examples that illustrate theories; names, dates, and events; lists or characteristics; causes and effects; and likenesses and differences). Keep in mind that your annotations should not be as detailed as your underlining. The purpose of the underlining should be to identify material that further explains your annotations in case you need to clarify your understanding by rereading. Annotate and underline using a pen, not a highlighter. Highlighters tend to encourage underlining too much! Also, you cannot annotate using a highlighter.

**ORGANIZE:** Once you have completed the textbook chapter, annotating each section that you feel is important, you are ready to organize the information further. Isolate the really important information by copying it onto maps or charts (if you learn best visually) or flashcards. You will return to your textbook only to locate information that is unclear or that requires additional information. Many students choose to make up a summary sheet for each chapter to be learned. A summary sheet should never exceed 2 -3 pages per chapter. It contains only the key concepts and supporting details (add the page numbers on which the details are contained in the textbook). You need to do the summary sheet or note cards every time you finish a chapter.

As you look over your note cards, charts, or summary sheets, begin to formulate test questions. Try to find out what types of questions your instructor will use on his or her quizzes (multiple choice or essay); then make up test questions of your own in the same format.

**REVIEW:** Say the information out loud. Recite the test questions and recite the answers. Make sure that you can talk through not only the main points but the supporting details as well. Be sure that you can recite examples when appropriate. Students who achieve the highest grades tend to review 2 - 3 times per week. Such an approach will help you to avoid cramming. You will also discover that you will become better at predicting test questions. Many of your questions will be very close to those actually chosen by the instructor. Another advantage of this technique is that it breaks your dependency on the textbook so that when the instructor, on the day of the test, tells you to put your textbooks and notebooks away, you will feel much more confident, much less dependent on needing to have that textbook or your notes before you in order to feel confident.

### **STRATEGIES FOR UNDERLINING**

1. **Read a comprehensible “hunk” of the material first.** Many students drag their pencils along as they read, but efficient underlining is done after the first reading, which is necessary to determine what is important.
2. **Capture the author’s main points.** One of the pitfalls many students fall into is that of assessing the importance of items from their own points of view instead of trying to understand just what the author is saying in a few words.
3. **Underline only a few words or phrases** which hang together to form sentences which represent the author’s key ideas. These can serve as review points later on. You may add words, block out parts, change tenses, etc. to aid comprehension.
4. **Edit your material.** Organize systematically that which is underlined, using numbers or symbols and adding marginal notes as appropriate. Write key words or make questions in the margin, or summarize at the top or

bottom, and use contrasting colors for different levels of reviewing. Do anything your creative mind can come up with that helps.

Some students have not acquired the habit of marking their textbooks. This is probably because high school students do not own their own books and, therefore, cannot mark them. Others feel that marking will decrease the resale value of the book, which is NOT the case.

Developing this skill in college, however, is a necessity because of the large amount of required reading. Marking the text not only emphasizes the **IMPORTANT IDEAS** but is particularly helpful in **REVIEWING FOR EXAMINATIONS**. A well-marked page may be reviewed in less than half the time it would take to reread it or to take detailed reading notes. It is not an efficient use of time to take notes on large portions of the text when the text can be marked easily. Here are a few guidelines for underlining.

1. Use a **VARIETY OF MARKS**. You may want to circle main ideas and underline details, phrases, circle important names and dates, or use brackets for an entire paragraph.
2. Write **SUMMARY WORDS IN THE MARGINS**. These should be abbreviated if possible and are often helpful in reviewing for a test.
3. **AVOID OVERMARKING**. Excessive marking confuses the reader and may, in extreme cases, decrease the resale value of the book. Usually just a phrase or two in an important sentence is enough. Important paragraphs can be bracketed instead of underlining every sentence.
4. **REVIEW YOUR MARKINGS** quickly after you finish an assignment and **BEFORE YOU CLOSE THE BOOK**. Some students take very brief notes at this point, but go back and review your markings in some manner immediately after finishing the assignment. This prevents forgetting and leaves you with an overview of the main points of the assignment.

#### **UNDERLINING EXERCISE**

1. First, read each of the following paragraphs without doing any underlining.

2. Formulate in your mind a statement that sums up the main idea of the passage. Write that statement in the space below the passage.
3. Then go back and underline the paragraph in a way that highlights the main idea and some key supporting facts.
4. Compare your work with the samples that follow each paragraph. Then circle the word that best reflects your feelings about the quality of your underlining.

### I.

If we look a little deeper into the mystery of how life gets formed and grows, in its embryonic stage, we must look to the concept of “organizer cells.” These cells, which function in the development of the embryo of every form of life, make decisions; they “decide,” for instance, which part of the embryo will be the tail and which will be the head. In the course of physical development, a variety of regions (the limb region, the mouth region, the eye region) get organized. If you take the tissue from one region of the embryological “body” of a salamander, for example, and transplant it to another, it will tend to grow according to the environment of cells in this “alien” area. If, at the appropriate stage in development, you take belly tissue and move it into the eye or mouth region, it will not “become” a belly but will be converted into an eye or a mouth. Further, and even more startling, Willier, Weiss, and Hamburger (1955) report that if you take belly tissue from one species in order to form a mouth in a different species, this tissue will indeed form a mouth but a mouth characteristic of its own species rather than that of the host species to which it was transplanted.

MAIN IDEA:

I feel my underlining of this passage is: EXCELLENT, VERY GOOD, GOOD, FAIR, POOR, VERY POOR, DON'T KNOW (CIRCLE ONE)

ANSWER:

Main Idea: Studies show that organizer cells are important in the development of an embryo.

I. If we look a little deeper into the mystery of how life gets formed and grows, in its embryonic stage, we must look to the concept of "organizer cells." These cells, which function in the development of the embryo of every form of life, make decisions; they "decide," for instance, which part of the embryo will be the tail and which will be the head. In the course of physical development, a variety of regions (the limb region, the mouth region, the eye region) get organized. If you take the tissue from one region of the embryological "body" of a salamander, for example, and transplant it to another, it will tend to grow according to the environment of cells in this "alien" areas. If, at the appropriate stage in development, you take belly tissue and move it into the eye or mouth region, it will not "become" a belly but will be converted into an eye or a mouth. Further, and even more startling, Willier, Weiss, and Hamburger (1955) report that if you take belly tissue from one species in order to form a mouth in a different species, this tissue will indeed form a mouth but a mouth characteristic of its own species rather than that of the host species to which it was transplanted.

## II.

When the child and his siblings enter the counseling room, they are confronted with a group of adults, sometimes quite numerous, and, if this is the first interview, with the counselor, whom they have not met. This situation is certainly "strange" to them. Interestingly enough, the effect of the strangeness is both profound and extremely helpful. Contrary to the assumption that the child is not "himself" in a perplexing atmosphere, it has been found repeatedly that he expresses himself here more accurately than in familiar surroundings of home or school, where he may hide behind well-established facades. In many cases the behavior of the children entering the room points to problems diametrically opposed to those cited by parents and teachers. The "problem" child may show a completely adequate

performance and adjustment, while the hitherto well-adjusted sibling suddenly reveals his difficulties.

MAIN IDEA:

I feel my underlining of this passage is: EXCELLENT, VERY GOOD, GOOD, FAIR, POOR, VERY POOR, DON'T KNOW (CIRCLE ONE)

ANSWER:

MAIN IDEA: A child is more himself when confronted by a group of strange adults.

II. When the child and his siblings enter the counseling room, they are confronted with a group of adults, sometimes quite numerous, and if this is the first interview, with the counselor, whom they have not met. This situation is certainly “strange” to them. Interestingly enough, the effect of the strangeness is both profound and extremely helpful. Contrary to the assumption that the child is not “himself” in a perplexing atmosphere, it has been found repeatedly that he expresses himself here more accurately than in the familiar surroundings of home or school, where he may hide behind well-established facades. In many cases the behavior of the children entering the room points to problems diametrically opposed to those cited by parents and teachers. The “problem” child may show a completely adequate performance and adjustment, while the hitherto well-adjusted sibling suddenly reveals his difficulties.

### III.

To repeat, advertising is a symbol-manipulating occupation. The symbols of fashion and elegance are used to glamorize clothing and cosmetics. The symbols of youthful gaiety sell soft drinks and candy bars. The symbols of adventure and sportsmanship are used to promote cigarettes and liquor. The symbols of love and delight in one’s new baby have been completely appropriated by the sellers of prepared baby foods, canned milk, and diaper services. Advertising is a tremendous creator and devourer of symbols. Even the symbols of patriotism are used for the purposes of

salesmanship. There are advertisers who assure us that “It’s American to want something better,” while a beer called “Lucky Lager” advertises with the slogan, “It’s Lucky if you live in America.” Not even the symbols of religion are off limits-- Christmas and Easter are so strenuously exploited commercially that they almost lose their religious significance.

MAIN IDEA:

I feel my underlining of this passage is: EXCELLENT, VERY GOOD, GOOD, FAIR, POOR, VERY POOR, DON’T KNOW (CIRCLE ONE)

ANSWER:

MAIN IDEA: Advertising exploits symbols of many kinds to sell products.

III. To repeat, advertising is a symbol-manipulating occupation. The symbols of fashion and elegance are used to glamorize clothing and cosmetics. The symbols of youthful gaiety sell soft drinks and candy bars. The symbols of adventure and sportsmanship are used to promote cigarettes and liquor. The symbols of love and delight in one’s new baby have been completely appropriated by the sellers of prepared baby foods, canned milk, and diaper services. Advertising is a tremendous creator and devourer of symbols. Even the symbols of patriotism are used for the purposes of salesmanship. There are advertisers who assure us that “It’s American to want something better,” while a beer called “Lucky Lager” advertises with the slogan, “It’s Lucky if you live in America.” Not even the symbols of religion are off limits-- Christmas and Easter are so strenuously exploited commercially that they almost lose their religious significance.

**Note:** Since this paragraph is mainly composed of examples, a few key ones suffice to capture the flavor of what the author is saying.