

Reading Textbooks:

7

What They Never Taught You in Kindergarten!

"No matter how busy you may think you are, you must find time for reading, or surrender yourself to self-chosen ignorance."

— Atwood Townsend¹

"Wear the old coat and buy the new book."

— Austin Phelps¹

Which is more difficult to read, fiction or nonfiction?

While it is noteworthy that fiction and nonfiction are usually written in different styles, with different features, and in a different structure, the answer to this question may be partly dependent on the purpose behind your reading. If you encounter a difficult book when reading for pleasure, you may simply discontinue reading and switch to something easier. You will not have that option when it comes to the required reading assignments you have in college. While some of your assigned reading in college include works of fiction, a substantial portion of the required reading will be a special type of book: the textbook. Even when reading fiction works in college, you will be required to think more deeply about those fiction books than you would if you were reading them for pleasure. In many cases, the required reading in college will constitute both a challenge and a pleasure. One of the most important activities that will occupy your time in college is reading.

In this chapter, you will learn why reading textbooks is so important in college and how to use a textbook effectively. We will explore some reading and studying strategies, such as the research-proven SOAR method and the widely accepted SQ3R method. These principles will help you to read more effectively.



Try This!

In the left column below are a series of quotes about reading with the author identified. Use the space provided in the right column to write what message you think the author wanted to convey. Consider the author in your analysis.

Quote	Intended Message
"The more you read, the more things you will know. The more that you learn, the more places you'll go." – Dr. Seuss	
"Some people will lie, cheat, steal and back-stab to get ahead ... and to think, all they have to do is READ." – <i>Fortune</i>	
"Once you learn to read, you will be forever free." – Frederick Douglass	
"Not all readers are leaders, but all leaders are readers." – Harry S. Truman	
"The man who does not read good books has no advantage over the man who can't read." – Mark Twain	
"You don't have to burn books to destroy a culture. Just get people to stop reading them." – Ray Bradbury	
"Think before you speak. Read before you think." – Fran Lebowitz	
"Reading is to the mind what exercise is to the body." – Richard Steele	
"My alma mater was books, a good library ... I could spend the rest of my life reading, just satisfying my curiosity." – Malcolm X	

Source: Quotes from The Literacy Company, available at <http://bvtlab.com/6685A>.

7.1 What Is Reading?

Nagaraju offers the following definition of reading:

Reading is not a simple, passive process of linear reading of words and internalizing their meaning one at a time. Reading is a complex interaction between the text and the reader shaped by the readers' prior knowledge and attitude, a process of language acquisition, communication and sharing information and ideas.²

Much can be written about reading in general, but our primary focus in this chapter is to briefly identify principles and techniques that college students can apply to the reading of their textbooks.

7.2 Why Textbooks?

Many introductory-level textbooks are quite impressive in terms of the volume of information they contain. Textbooks don't just present the core concepts of the discipline; they are also loaded with vignettes—boxed essays related to, but separate from, the body of the text—pictures, charts, tables, maps, and so on. These are all desirable components; taken together, however, they sometimes result in a book measuring over two inches thick and costing more than \$200. It is easy to understand how a first-year college student taking five classes could be overwhelmed by the massive content (and cost)!

Nevertheless, making good use of your textbooks is without a doubt one of the most important skills you must learn. The textbook is absolutely essential for the vast majority of college courses. Failing to acquire and read a textbook is one of the biggest mistakes that a student can make in a course. If you are enrolled in a course for which you think the textbook is optional, ask the professor if he or she thinks that you will be able to perform well in the course without the textbook. If the professor agrees, then it will be fine. Otherwise, assume that the textbook is critical and not optional.

As the Austin Phelps's quote that began this chapter suggested, obtaining a textbook must be a budget priority for any student who wishes to be successful in college. Critical Thinking Activity 7.1 asked you to think of ways to complete the required reading assignment for a college course if you could not afford a textbook. Can you think of additional ways to obtain a textbook if you cannot afford to buy one? This is a problem that you might need to solve in order to be successful in college.

In the next section of this chapter, we will explore how to read a college textbook effectively. Your attitude about reading will make a big difference in your likelihood of success. Table 7.1 presents statements associated with succeeding and failing when it comes to reading. How many of the failing ideas have you agreed with in the past? How many of the succeeding ideas have you agreed with in the past? If you want to be successful in college, you will need to abandon the failing ideas and adopt successful ideas and behaviors regarding reading.

Table 7.1

Failing and Succeeding Dispositions Toward Reading a Textbook	
Failing Ideas	Succeeding Ideas
I don't plan to buy (or otherwise acquire) a textbook.	I will make owning the textbook a top budget priority.
I will not buy a textbook on the first day of class, but I might buy one at some time later in the semester.	If I can't afford the book, then I will look for another way to acquire one so that I can complete the reading and adequately prepare for class.
I don't plan to read the textbook.	I will prepare to read by planning specific times in my schedule for that purpose.
Instead of reading, I will just skim the textbook to look for items that I think will be on the exam.	I will adopt a reading strategy such as SOAR or SQ3R to ensure that my reading is effective.
I will wait until after the professor lectures on a chapter before I read the chapter so that I can use the lecture for clues about what parts of the book will be on the exam.	I will read the assignment before the class where it will be discussed so I will be prepared for each class and will not fall behind.
I expect the professor to go through the book during class, before the exam, and to tell the students which pages are important. I will wait until then to read.	When we do discuss a chapter in class, I will ask questions about anything that I did not understand from my reading.
I'll let the professor teach me what I need to know; after all, that's what he or she gets paid for, so it is his or her responsibility.	I will take adult responsibility for my learning; I don't expect the professor to spoon feed me the information.



Reading Comprehension Question 7.1 (Knowledge)

Why are textbooks important in college?

- Because introductory textbooks have all the information you need to pass that course
- Because these books replace the professor's lecture materials for most classes
- Because in most college courses, textbooks provide essential information for understanding and learning the course material
- None of the above

7.3 How to Read a Textbook

The first step for success in reading is to actually read the textbook. Too many students try to get through a course without actually reading. They may not buy a book and therefore don't read at all, or they may acquire a book but never open it. Activities such as skimming, highlighting sentences when the professor reads them in class, or staring blankly at the page do not constitute effective reading.

In his blog, D'Agostino, a former mathematics and physics professor and textbook writer and editor, addressed the question of why students do not read textbooks.

In the frenzy of deadline after deadline (assignments due, quizzes, tests, labs, lab reports, etc.), it's all they can do to put out the next fire. As a result, they are very inefficient; they can't take the time to do a good job of learning the material, which would involve reading the textbook, working through the examples, and doing many practice exercises. Instead, they devote far more time to completing the assignments than would be necessary if they had done many practice exercises, because they attempt the assignments before they really understand the material. But they don't see an alternative, because the assignments are worth marks, and so they are (unfortunately) a higher priority than actually learning the material. By the end of the course, they understand very little, even if they have managed to score a decent grade.³

Does D'Agostino's explanation fit your situation? Do you have trouble reading effectively? If so, can you identify any barriers that prevent you from reading success? In order to become a better reader, you should devote time to reading, treat reading as a top priority, seek a reading environment without distractions, and employ proven strategies such as the SOAR and SQ3R methods.

7.3a Expect to Devote Time to Reading

Effective reading and studying take time. The number of hours that students spend studying has gradually decreased since the 1960s, from twenty-four hours per week in 1961 to fourteen hours per week in recent years.⁴ We could hypothesize that students need less time to study today due to technological advances (after all, a calculator is faster than a slide rule); however, if so, then we would expect them to learn more and earn higher grades. They don't. Researchers have observed that, unaided, students make the same types of study errors using electronic media as they do using other media. Bottom line: If you want to be successful in college, you are going to have to devote a lot of time to reading and studying.

7.3b Don't Try to Multitask

Any adult can understand why texting while driving is a serious mistake. The dangers of texting on your phone or another electronic device while reading your textbook may not be immediately apparent to some students, but it is also a big mistake. If you want to learn and be successful in college, then you are going to have to be so committed to studying that you are willing to turn off your phone, TV, music, or any other distraction while you study.

7.3c Read in an Environment That Supports Studying

Whether you live in a dorm, with roommates, or with your family, you may find that it can be difficult to study at home. If possible, go to a place that will enable you to concentrate on your reading and studying. The library is usually a great place to study. Tutoring labs are also good. But it does not have to be a place labeled “study hall,” as long as it is a place free from distractions, where you can read, think, take notes, and concentrate.



Want to learn more? Try these resources.

The Antelope Valley College website has a Study Environment Analysis form that lets you fill in three locations and then evaluate them as reading locations by answering twelve simple questions. Try it yourself by browsing to the following URL:

<http://bvtlab.com/GPe8Z>

7.3d Employ Proven Strategies for Reading

There are many good strategies that you could adopt to improve your reading. In this chapter, we will review two of them: the SOAR method and the SQ3R method. These methods are very useful when reading the typical textbook.

SOAR

Would you like to score twenty-nine to sixty-three points higher on your next exam? Through research, Dr. Kenneth Kiewra discovered four techniques that, when practiced by students while studying, significantly improve learning. They are known by the acronym SOAR, which stands for **Selecting**, **Organizing**, **Associating**, and **Regulating**. *Selecting* refers to distinguishing what information is important.⁵ *Organizing* involves converting information from its initial form to comparative charts and illustrations.⁶ *Associating* involves creating meaningful connections between ideas.⁷ *Regulating* includes learning through practice and self-evaluation.⁸ Kiewra found that “undergraduates in the study scored 29 to 63 percentage points higher on tests when they used study techniques like recording complete notes, creating comparative charts, building associations, and crafting practice questions.”⁹

As Kiewra noted, “Learning occurs best when important information is selected from less important ideas, when selected information is organized graphically, when associations are built among ideas, and when understanding is regulated through self-testing.”⁹ The elements of SOAR can be incorporated into a popular method called SQ3R.⁷

Table 7.2

Description of the SOAR Method		
S	Select	Distinguish important information from the information that is less important.
O	Organize	Convert the important information into another format such as a table, list, chart, timeline, etc., that reflects your understanding of the main points.
A	Associate	Recognize the connections between the different important facts, ideas, or concepts.
R	Regulate	Assess yourself at regular intervals to determine how much of the important material you have adequately learned. When you discover a gap in your knowledge or a deficiency in the quality of your understanding, engage in additional learning to correct the problem.

Sources: Jairam & Kiewra 2009; Jairam & Kiewra 2010; Kiewra 2002; Kiewra 2005; and University of Nebraska-Lincoln 2010.

SQ3R

Effectively reading a college textbook or journal article involves a lot more than simply moving your eyes across the page and decoding the words. This is illustrated by a summary of the SQ3R method. SQ3R stands for Survey, Question, Read, Review, and Recite. The principles of the SOAR method can be incorporated into the SQ3R strategy.

Table 7.3

Description of the SQ3R Method		
S	Survey	Using this method, you should begin your reading assignment by surveying what you are expected to read to get a general overview of it. Observe how the document is organized or divided. Textbooks often include reading tools embedded into the chapter to help you read more effectively. Look to see what reading tools are included in the document, such as a list of learning goals for the chapter; a list of key terms, definitions set out in the margins, important terms or phrases printed in bold, an outline, or a summary. Surveying the document before reading will help you to distinguish the most relevant information from any less relevant parts (this is referred to as selecting in the SOAR model).
Q	Question	Question means to actively engage with the text by asking yourself questions before and while you read. Examples of questions you might ask include the following: What is this chapter about? What is the main idea? What facts support the main idea? What examples are given? What information in this chapter is relevant and important? What information will help me address the <i>learning goals</i> for the course, chapter, or lesson? Clearly stated goals for each chapter can help students with the very important study task of determining what facts or concepts presented in the reading or lecture are most important. If the goals are not already provided for you in the textbook, the syllabus, or a handout from the professor, then ask the professor what his or her goals are for the chapter or lesson in question.

Description of the SQ3R Method (Cont.)

R	Read	Now you are ready to begin reading. Especially in the case of reading a textbook, you should write notes about what you are reading. As with any kind of note taking, do not write down everything; instead, isolate the most important points and organize them in a way that makes sense to you. Yep, effective reading involves writing! The point of this note taking is to shrink the important content of the chapter down to a few brief summary pages that will help you learn the information. You should try to convert the information from its initial form to comparative charts and illustrations—this is called organizing in the SOAR model. Note taking will help you concentrate on your reading. Sometimes this reading will move along quickly, especially when you are covering familiar material. At other times you will need to slow down and concentrate to make sure that you understand what you are reading. Understanding is paramount. While it is true that some things—such as special vocabulary—should be memorized, the main objective of your reading should be to learn and understand the content.
R	Review	At the college level, reading something one time usually isn't enough to master it. This is where the notes you take while reading come in handy. You should plan time to review them on a regular basis. Difficult material may need to be reviewed more often than less challenging material. When you review, try to make connections between the information in your notes, information in other reading assignments, information from lectures, and information from class discussions (this is called association in the SOAR model). This is a very important part of the process because it will help you to elevate your studying from the level of memorization to the level of critical thinking and understanding.
R	Recite	Recite means to say the information out loud or to write it out on paper. In order to get the full benefit from your reading, you should set aside time each week to recite your notes. This is an activity that can be done with a partner who is learning the same material. Hearing another person's notes may help you to improve your understanding and memory of the information—even more so than if you used just your own notes. Use your notes to test yourself. The act of learning through practice and self-evaluation is called regulating in the SOAR model.



Reading Comprehension Question 7.2 (Literal Comprehension)

Why is it important that students use the SOAR method of reading and studying?

- Students should use it because any method is better than no method.
- Students should use it because it is the most recent method developed by reading experts.
- Research has proven that students score much higher on tests when they use the SOAR method.
- It is not recommended that students use the SOAR method; they are urged to use the more popular SQ3R method, instead.



Want to learn more? Try these resources.

The Dartmouth site has a number of additional videos and written (downloadable) resources that address student success. View resources at Dartmouth College at the following URL:

<http://bvtlab.com/CZ697>

Download the list of Active Reading Strategies from the McGraw Center for Teaching and Learning at Princeton University at the following URL:

<http://bvtlab.com/4cNb7>

7.4 Road Signs for Reading

Effective reading is a stop-and-go process. Efficient readers vary their reading according to the material being read and their purpose for reading it. Some reading material is intended to be read faster, such as magazines or newspapers. Textbooks are generally read more slowly, but even within textbooks, there are passages that can be read quickly. Following are some general tips to help you read more efficiently:

1. **Merge.** Read phrases instead of individual words. Normally when you read, you can read faster and comprehend better if you focus your eyes on groups of words that make up phrases instead of focusing on each word individually.
2. **Slow down** for difficult passages. Avoid reading the same phrase over and over without understanding it. Instead, if you are dealing with a difficult passage in a book, slow down, concentrate, and read the passage more carefully. In the long run, it may take less time to read a difficult passage slowly with understanding than it would to read it many times quickly without understanding.
3. **Stop** to think about what you have read. Periodically, as you read, you should stop and think about what you have read. What was the point of the passage? What part of it is most important? What did you learn by reading it? Was there any part of it that did not make sense to you? Was there any vocabulary that is new to you (that you need to look up)? Do you need to write notes about anything in the passage?
4. **Speed** up for easier material. You may read faster when dealing with not-so-difficult passages of the text.

In other words, you should vary your reading speed and technique so that it matches the difficulty level and writing style of the passage, stopping periodically to check in with yourself and make sure you understand what you've read.





Reading Comprehension Question 7.3 (Inferential Comprehension)

Based on the information in Road Signs for Reading, how should you read a textbook?

- You should use the skim method to get the main idea without reading everything.
- You should read the textbook slowly, line by line.
- You should read as fast as you can because college students have a large amount of required reading.
- You should take time to read and to understand what you're reading, knowing that you may need to vary your reading according to the content.

7.5 Responding to New Vocabulary

No matter how much education you acquire, as long as you keep reading, you will continue to encounter new vocabulary. This is positive because it means that you are learning new things. But how do you go about learning new words?

7.5a Identifying New Vocabulary

When you read something strictly for pleasure, such as a novel, you usually don't worry about new vocabulary. If you come to a word you don't know, you simply continue reading and figure out what the author meant from the context. It is not essential that you understand the meaning exactly as long as you understand the passage as a whole. This is often not the case when you read a textbook. Identifying, understanding, and applying new vocabulary is often critical when reading a textbook. Following are some ways that you can identify and understand words that are new to you.

Sound Out the Word

It is a good idea to start by sounding out a new word *phonetically*—by making the sounds represented by each letter or group of letters in the word—especially if you were taught to read this way when you were a child. Unfortunately, the English language does not have phonetic rules that can be applied to every word. Some students (and even adults!) have a large vocabulary of words that they simply haven't heard in conversation or elsewhere. Nevertheless, sounding new words out can provide an important link between vocabulary acquired by hearing and vocabulary learned through reading. Sounding words out may also help you to spell them more easily later.

Use Context Clues to Derive Meaning

Many times you can figure out what a word means by observing how it is used in the sentence or paragraph. What part of speech is the unfamiliar word? You may not realize it, but if you can't figure out the meaning of the word, then you may not understand the passage very well. When this happens, you should look up the unknown word in a dictionary in order to make sure that you understand the passage.

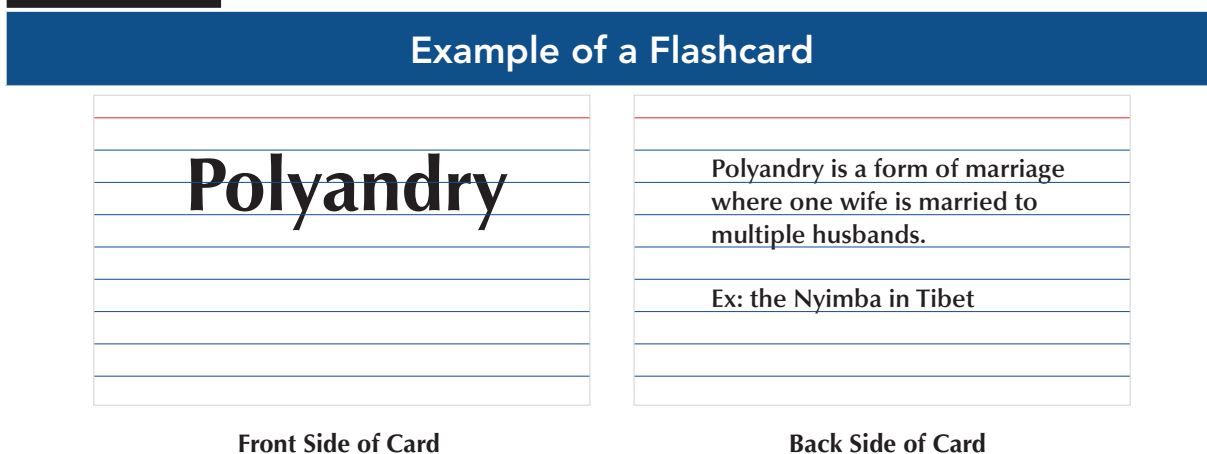
Use Resources Such as a Glossary or a Dictionary

Does the textbook have a glossary? A glossary is a listing, sometimes found in the back of the textbook or at the end of the chapter, which provides definitions for words or concepts that the author feels are important. Sometimes information in the glossary can help you better understand the point of a passage where a glossary word has been used. Dictionaries of various types are also a great resource for college students.

7.5b Learning New Words

While understanding is always your primary goal, you may discover some discipline-specific vocabulary that you will need to memorize. Flashcards are one helpful tool in such cases. Standard three-by-five-inch index cards are ideal for this activity. Write the vocabulary word or concept on one side of the card and the definition on the opposite side. Test yourself by reading the word and then, without looking at the definition, reciting the definition aloud. Then turn the card over to see if you were correct. If you were correct, remove that card from the stack and go to the next card. If you were incorrect, recite the word and read the correct definition aloud to help fix it in your memory. Then put that card back in the stack on the bottom so that when you get to the end of your stack of cards, you can test yourself on that card again before you are finished studying the cards. Every few days, test yourself using those same flashcards (and any new ones you've created) so that you will have studied them many times before you see that information on an exam in class. Using flashcards to test yourself repeatedly in this way is one example of regulating (the R of the SOAR method).

Figure 7.1



7.5c Moving Beyond Definitions to Associations

It is usually not enough to simply memorize the definitions for new words; you need to understand how these terms relate to other terms and to larger concepts. One strategy that may help you do this is called *concept mapping*.¹¹

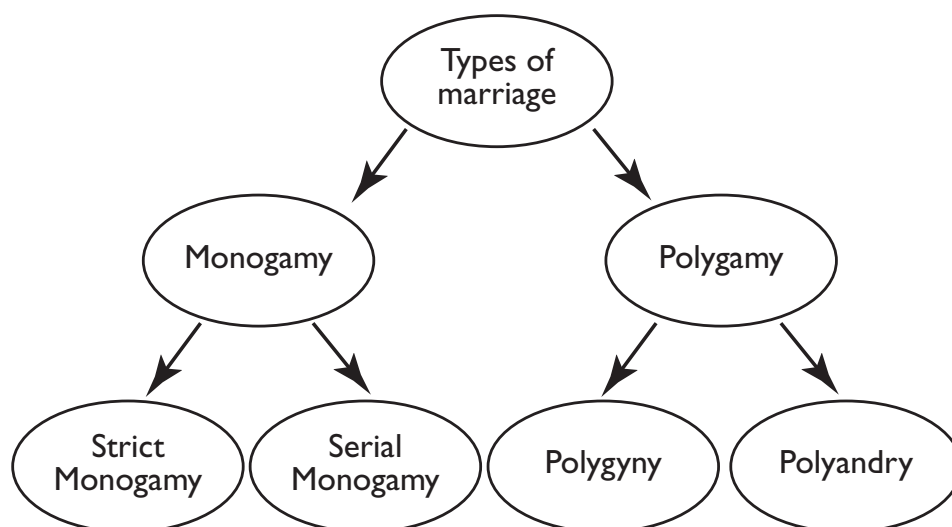
Concept mapping involves drawing a diagram of the terms to show the relationships between them. For example, if you encountered new vocabulary when reading about different types of marriage, you might draw a concept map like the one illustrated in Figure 7.2. The diagram helps you to easily recognize the ways in which the terms are similar and the ways

in which they are different. Monogamy and polygamy are different types of marriage. Strict monogamy and serial monogamy are different types of monogamy. Polygyny and polyandry are different types of polygamy.

Other types of visual organizers include tables, charts, graphs, timelines, flowcharts, diagrams, and webs. Examples of these may be found online.

Figure 7.2

Example of a Concept Map



Reading Comprehension Question 7.4 (Analysis)

Which of the following statements is accurate according to this chapter?

- Reading involves writing.
- Reading involves asking questions.
- Reading involves testing yourself.
- Reading involves distinguishing what information is important.
- All of the above



Want to learn more? Try these resources.

Examples of five different types of visual organizers are presented along with a table called Graphing Various Types of Conceptual Relationships is presented online at the following URL:

<http://bvtlab.com/nmsXj>

Information about concept mapping can be found at the following URL:

<http://bvtlab.com/7898R>

7.6 Summary

In this chapter, you learned why obtaining and reading the textbook in college is so important, as well as how to read a textbook effectively. Proven reading and learning strategies were described, including the SOAR (Select, Organize, Associate, and Regulate) method and the SQ3R (Survey, Question, Read, Review, and Recite) method. Good and bad attitudes toward reading in college were compared. The section on reading road signs explained ways to vary your reading rate and technique so that they match the difficulty level and writing style of the passage. Methods for dealing with new vocabulary were identified, including sounding words out and using context clues or other resources (a glossary or a dictionary). The chapter also offered techniques for learning new terms and concepts and for making associations between them.

Review Questions 7.1

Instructions

Following are five true-false statements taken from the information in this chapter. First, try to answer them without looking back at the chapter. Then review the chapter to see how well you did.

Question & Answer	Rationale
Circle true or false for each of the following statements.	Write an explanation stating why each statement is true or false.
1. A student can be successful in college without buying textbooks. True or False	Your Rationale:
2. The SOAR method is good for students who don't have a strategy for reading and studying, but students who already have a strategy will perform better if they stick to their own strategy because they are most comfortable with it. True or False	Your Rationale:
3. Memorizing new vocabulary is necessary, but understanding will always be your primary goal. True or False	Your Rationale:
4. Concept maps are a strategy designed to help you memorize new vocabulary. True or False	Your Rationale:
5. Not understanding words in the textbook is a sign that the student does not have much education. True or False	Your Rationale:

Analysis

How many words did you highlight?

Think about each word. Were you able to figure out the meaning for some of the highlighted words just by considering the context of the passages around it? How many of them could you figure out that way?

Look a few of them up to see if the meaning you have assumed, based on the context, is correct. Did you get them all correct, or were there some that you misunderstood?

Now look at the remaining highlighted words. How many of the highlighted words are left for which you were not able to figure out the meaning just from context? Look up the definitions of those words in the glossary (or if no glossary is available, use a dictionary). Do you understand the chapter better now that you know the definitions for those words?

How many of those highlighted words would you consider “important” for this class? Do you think that looking them up will help you score a higher grade on the exams in this class than you would have otherwise?

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.