

What Is Reading?

The handbook *Learn More and Read Faster: A Handbook of Advanced Reading Strategies for College Success* and the courses using it are geared to help you become an active, proficient learner from the college texts you read. The strategies taught in the handbook give you the know-how to process a difficult text. Reading-to-learn encompasses determination to understand the author's messages, to use flexible reading rates, to remember what is read, to apply disciplinary ways of reading, to grow a strong vocabulary for the concepts in a discipline, to have a critical perspective, and to think creatively based on the messages of the text.

The following essay does four things: 1) explores the nature of reading, especially academic reading, 2) describes the cueing systems that help you make sense of a text, both the linguistic clues—within the text—and the pragmatic clues—outside the text; 3) explains our model of the academic reading process that serves as the theoretical basis for the principles and strategies in the handbook, and 4) confirms the value of active, metacognitive reading by showing how the model applies to three hypothetical readers: indifferent, determined, and expert.

For questions to guide and evaluate your reading of this essay, use the ThinkSheet, pp. 19-20 below. Also know the meaning of each key concept listed in the box above. They are defined and explained in the handbook except for *cueing systems* which is explained herein. What does each concept have to do with becoming an expert academic reader?

The Nature of Reading

To begin, appreciate the incredible achievement it is to be able to read. “To completely analyze what we do when we read would almost be the acme of a psychologist's achievements, for it would be to describe some of the most intricate workings of the human mind” (Huey, 1908, p. 6). Second, try to understand some of the complicated but fascinating processes involved. For an analogy, think of yourself as carrying a mental backpack¹ with tools to figure out the author's meaning. You, the reader, need to bring much to the text to reconstruct this meaning. You need to consider the text situation well enough to decide which tool to pull from

¹ Analogy from Cummings (2008).

KEY CONCEPTS

Active vs. Passive Reading
Co-Author the Text
Cueing Systems
Disciplinary Literacy
Metacognitive Awareness
Rhetorical Reading
Sampling
Text
Worldview

the backpack—whether to figure out a sophisticated argument or a hard word. You need to recognize when the text is not making sense and then have the strategies in your “backpack” to remedy the difficulty. If you don't have the strategies, you are stuck with not understanding. What is in your mental backpack to draw on when you realize comprehension is not happening? Whimbey (1975) gives some insights to this question:

A good reader proceeds smoothly and quickly as long as his understanding of the material is complete. But as soon as he senses that he has missed an idea, that the track has been lost, he brings smooth progress to a grinding halt. Advancing more slowly, he seeks clarification in the subsequent material, examining it for the light it can throw on the earlier trouble spot. If still dissatisfied with his grasp, he returns to the point where the difficulty began and rereads the section more carefully. (p. 91)

Reading a print text can be defined as a communication across time and across space from an author to a reader by means of conventional symbols that the reader uses to reconstruct and interpret the author's meaning. Reading is the reader's search for what the author is saying and what response the author is hoping to elicit from the reader. Many factors influence the construction of meaning including the author, the text, you the reader, and the text situation. Reading involves at least these four elements:

1. An author has ideas and knowledge to convey or explore, but since telepathy to communicate from

the author's mind to the reader's mind isn't currently possible, the author composes a text.

2. The text reveals the author's thinking and *worldview* (see glossary, p. 344) though never in an identical way to the text in the author's head.

Language is a cracked kettle on which we bang out tunes to make the bears dance, when we long to move the stars.

-Gustave Flaubert (1987), p. 188

3. The reader tries to reconstruct the author's ideas based on the text's symbols and clues, but inescapably filters these through the reader's attention, purposes, background knowledge, use of strategies, etc. Though complete understanding of the author's message is impossible, the reader's task is to aim for this ideal and to give the text a fair hearing before judging it.
4. The text situation involves the practical demands of the current circumstance within the larger social and cultural context. It includes such factors as the psychological climate, the perceived uses of the text, the professor's expectations, etc.

This interplay of author, text, reader, and situation (see *rhetorical reading* in glossary, p. 341) is what Nancy Christiansen calls "the irreducible context" because all four elements must be present for communication to occur:

There is always the speaker [author] (who has been shaped by many environmental influences, but who also shapes self and environment) using a medium (signs) [text] to comment on a subject (some aspect of "reality") [topic] in a certain manner (behavior) [style] in order to elicit a response from an audience [reader] (who has been shaped, but also shapes) with whom the speaker shares physical, historical, cultural, and moral experiences [setting, text situation]. (Christiansen, 2003, p. 87)

Texts "don't exist in a vacuum. They were written by someone for a particular purpose, at a specific time, for a designated audience. To understand a text is to know that these dimensions matter."

-Fisher & Frey (2014), p. 132

Please study Figure 1 (p. 3). It shows who and what contributes to the the reading act. Under each of the

four contributors to meaning are lists of what each brings to the meaning-making event. Notice that the *author* cannot contribute directly to meaning making because of the "wall" preventing mind to mind transfer of meaning. Instead this attempt is "ricocheted" to the text—the author contributes through the text he or she composes. As you can see in the diagram, the *text* (see glossary, p. 343) contributes much more than words on a page. Its organization, print features, illustrations, genre, etc., play a big part in helping or hindering your meaning making.

As for what you the *reader* contribute, you will probably immediately recognize in yourself the impact of some of items on the list. The most obvious are those under "Readiness at the Moment": If you are tired, upset, have little time, are hungry, are ill, have eye strain, you will read much differently than if you are energized, focused, are well, feel rested, and have plenty of time to process the text. Also notice that the author and reader contribute mostly through the same dimensions such as self-knowledge, intellectual preparation, readiness.

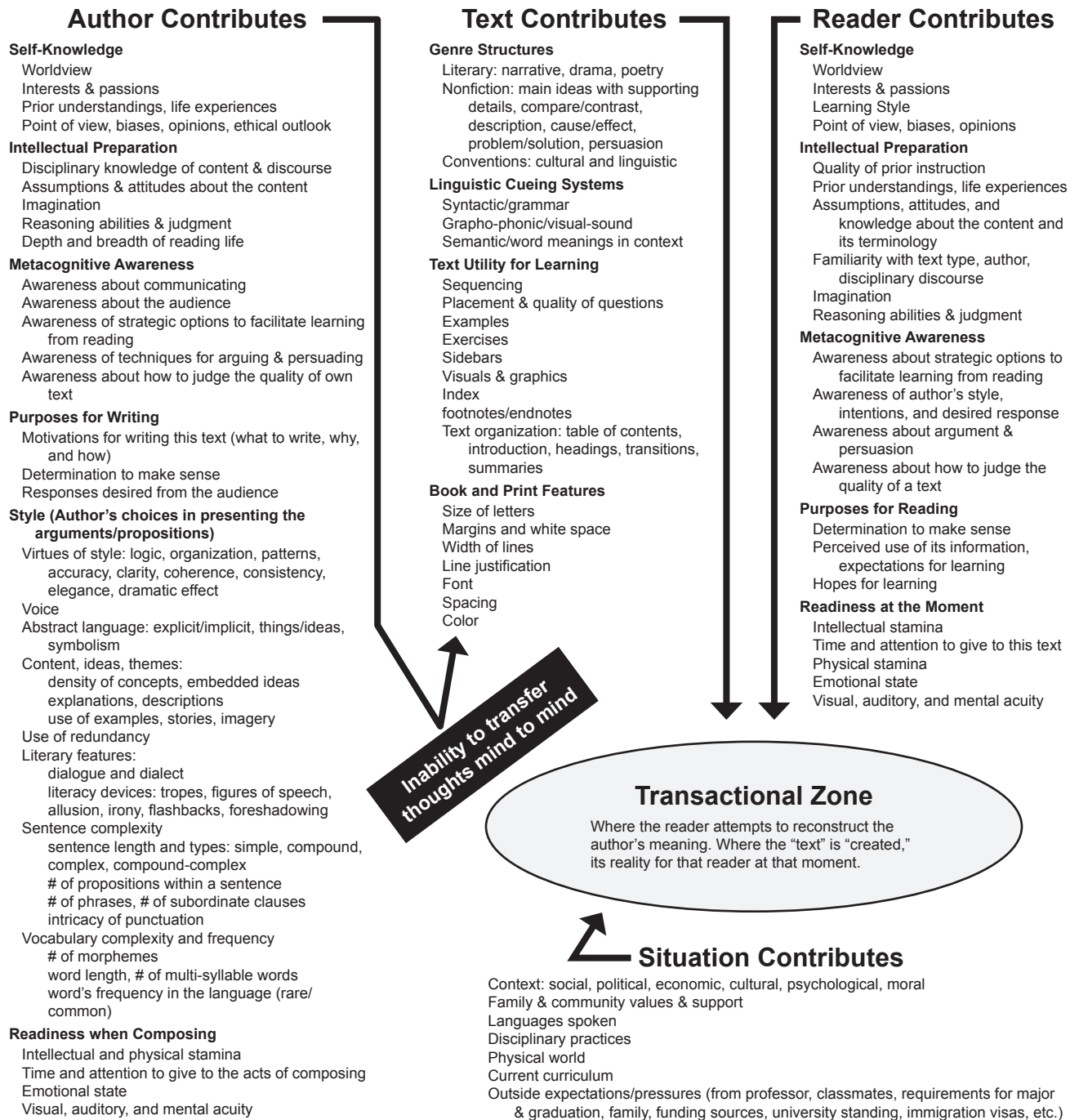
The *situation*, while the shortest list, has massive, pervasive, and often unacknowledged influence on the creation of meaning. Consider the impact of trying to read in a foreign language, of having high expectations and encouragement from your family versus not having any encouragement or support, of your county expecting a tornado to land soon, of your town having been warned of a terrorist threat, or of realizing that if you don't pass this semester with at least a 3.0, you will lose your funding for college.

Given these complex interactions among author, text, reader, and situation, it is no wonder a text can be difficult to read. Following are definitions² that indicate this interplay of factors. Reading is . . .

- "Externally guided thought" (Neisser, 1967, p. 136).
- "Not only understand[ing] the literal sense meaning of the text and recogniz[ing] the writer's intent or purpose, but also recogniz[ing] and comprehend[ing] the text's tone and the writer's tone or attitude toward the text and the reader" (Crismore, 1981, p. 7, paraphrasing I. A. Richards, 1938)*.
- "The reconstruction of the events behind the symbols" (Korzybski, 1941)*.
- An interaction between the reader and written language, through which the reader attempts to

² Those with an asterisk (*) are quoted in Harris and Hodges (1995, pp. 207-208).

Figure 1: Sources Contributing to the Transactional Zone



reconstruct a message from the writer (Goodman, 1976a).

- “Text processing [that] occurs not only during ‘reading’ as we have traditionally defined it, but also during short breaks taken during reading, even after the ‘reading’ itself has commenced, even after the ‘reading’ has ceased” (Duke & Pearson, 2002, p. 206).
- “Not a passive experience; it’s more like a duet between reader and author, and as a result any bag-

gage a reader brings to a book can radically change his or her response to it” (Grossman, 2013, p. 57).

- The moment-by-moment text a reader co-authors with the author at any instant in the journey through the text.
- The activity of selecting, predicting, comparing and confirming a sample of useful graphic cues based on what a reader sees and expects to see (Goodman, 1976b).

- The act of making “a hypothesis about the original message, apply[ing] rules to determine what the input would be like if the hypothesis were true, and check[ing] to see whether the input is really like that” (Neisser, 1967, p. 195).
- “A selective process. . . . Efficient reading does not result from precise perception and identification of all elements, but from skill in selecting the fewest, most productive cues necessary to produce guesses which are right the first time. The ability to anticipate that which has not been seen, of course, is vital in reading” (Goodman, 1976b, p. 498).
- “Bringing meaning to a text in order to create meaning from it” (Galda, Cullinan, & Strickland, 1993, p. 124).
- Creating viable meaning from an author to a reader based on a recognition that every text is both an argument and an action: 1) the argument—what the author is trying to proclaim, and 2) the action/performance—how the author constructs the claims to elicit a particular response from the reader (Christiansen, 2013). The reader is more likely to create the desired reconstruction if he or she brings the text “back to life, to embodied performance” (p. 13), that is, to imagine the author talking to the reader with inflection, emphasis, gestures, and facial expressions. “. . . [T]he means of expression include signs not merely linguistic but also visual, aural, tactile, behavioral” (p. 12). The text is not just content; it has an author behind it and can be regarded as a transcript “connoting oral performance, not just the silent notation we . . . assume” (p. 13).

The above literacy theorists have shown that reading is NOT transferring information from an author to a reader; rather reading is the reader—living within the influences of the current situation—endeavoring to reconstruct an author’s messages from cues in the unfolding text and deciding whether or not to learn from the text and how to be influenced by its messages.

How can you translate the above explanations about the nature of reading into an understanding of your mental processes as you read? A useful analogy explains how this process may work:

If we see a man picking apples in an orchard, we assume his activity is determined by what he is seeking (ripe apples) not by what he is filtering out or choosing *not* to select (unripe apples, leaves, twigs, bugs, etc.). We make this assumption because we recognize that apple picking is goal-directed activity. (Dewey, 2007, para.2)

Reading is likewise a goal-directed activity. It is a construction based on selective attention. To gain any meaning from a text, *you do not passively sit back as a reader and receive information from a text without seeking it out.*

We see what we see because we miss all the finer details.

-Korzybski (1941, p. 376)

Your thinking is guided by the author and by the practical demands of the text situation. It is also guided internally by what you choose to attend to—selective attention. All of this is so intricate that “perhaps we should not be surprised that [reading] is so poorly understood; we may not understand it until we understand thought itself” (Neisser, 1967, p. 136).

It is little wonder that teachers and focused programs in public schools can have bigger impacts on math test scores than on reading test scores. Becoming a proficient reader involves exposure to massive amounts of language and vocabulary, hearing texts aloud, discussing the ideas in texts, and drawing on background knowledge of cultural, historical, and social references, whereas math has a more universal language and is culturally neutral (Rich, 2013).

Another fascinating aspect of reading is how the same text can be comprehended quite differently by different readers. Paris and Hamilton (2009) indicate the difficulty of defining reading comprehension: “Reading comprehension is not a static or uniform outcome; it varies widely across people reading the same text and within the same person reading the text as each new reading, stance, or recursive thinking about the text may lead to new envisionments, new inferences, and new ideas” (p. 40). P. David Pearson (2009) explains the same reading phenomenon this way: “Readers quite literally compose new texts in response to texts they read; their recompositions are based upon the evocations (links to prior texts and experiences) that occur during the act of reading within a context that also shapes the type and manner of interpretations they make” (p. 21).

Given all this difference, it is amazing that readers can agree about the author’s message, and they do to a remarkable degree. Even though individual readers draw from their own “mental backpacks” and even though transferring messages directly from the author’s mind to readers’ minds is impossible (see ricocheted arrow in Figure 1), it is nevertheless possible and furthermore highly probable that most readers come to a shared meaning justified by their related perceptions

of text. This agreement among readers occurs because of common understandings of concepts in a society, of conventional ways of expressing ideas, of shared linguistic codes, of the similarities in human experience, etc., all utilized to make sense of the text. (See Rosenblatt, 1978, p. 12).

A text is only black marks on a page until readers ACTIVELY engage their minds to make sense of it. You are to bring all you can to a text, just as you hope the author did. (See *Active vs. Passive Reading*, in glossary, p. 333.) Your part in the reading process cannot be underestimated.

The Cueing Systems of Reading

Let's take a closer look at how making sense of text happens. You use the cueing systems of reading—the sources within and outside the text that suggest which prior knowledge or *schemata* (in glossary, p. 342) the reader can draw on to make sense of the text. The fluent reading process begins with the concept of *sampling* (in glossary, p. 342). You read too fast to focus on every letter or to be consciously aware of each word. Instead of focusing on individual words, you sample the text, that is, you gather a minimum of clues to figure out the meaning. You anticipate what is coming in the text and use as little information as possible to validate or refute that expectation.

To predict what is coming you use two main types of cueing systems: linguistic and pragmatic (see Figure 2). These cueing systems can be further divided. The linguistic cueing system usually involves three types of cues: semantic (the meanings of words within a context), syntactic (the arrangement of the words—the patterns within the text that indicate the relationships of the parts), and graphic/phonemic (the visual-sound relationships of letters and words). The pragmatic cueing system involves the dynamics outside the text that impact the reading event including what you bring to the text, the demands of the situation, and the unique ways of knowing in a discipline.

In Figure 2 notice the dotted lines in the diagram and the arrows connecting the pragmatic to the linguistic cueing systems. These represent the porousness across the cues because they influence each other. For example, think of all the factors that make it possible for you to predict the last word in this sentence: “The people followed the minister into the *ch*_____.” Your pragmatic cues: the logic of where people follow ministers (thus ruling out *chemistry lab*), your prior

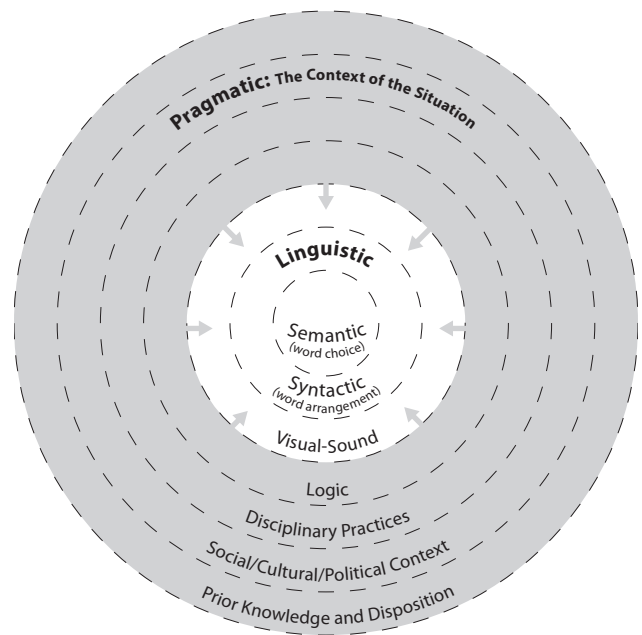


Figure 2: *The Cueing Systems of Meaning Making*

Adapted from Goodman, (1976b)

knowledge of where ministers work (ruling out *chicken pens* or *cherry orchard*); the linguistic cues: the syntactic constraints that the *ch*-word is a noun because it is the object of the preposition *into* and has the noun marker *the* before it (ruling out *chuckled* or *charming*), the visual and sound cue at the beginning of the word (ruling out *barn* or *swimming pool*).

Each of the cueing system is described below.

Linguistic Cueing Systems

The three linguistic cueing systems are shown in Figure 2 as the white inner circles.

SEMANTIC CUES (WORD CHOICE)

The focus of semantic linguistic cues is word meaning. These cues are those that lead to meanings of words within the relationships of words within phrases, sentences, and ultimately longer discourse and whole texts. The verbal signs, while appearing active and dynamic with personal connotations, are also standardized enough that most speakers of a language do associate conventional meanings, making communication possible. “It is the public nature of codes that makes it possible for authors and readers to arrive at a shared meaning of the message (Rosenblatt, 1978, p. 12). Of course, the words chosen make a difference in the meaning the reader constructs from the text. Below are three examples:

Minimal pairs is a method semantic linguistics use to show the impact of word choice on the meaning of a sentence:

I sing *by* a church (next to a church)

I sing *at* a church (perhaps a choir member)

Strunk and White (1979) give this example of interchanging two simple words *me* and *my* and changing the meaning:

Do you mind me asking a question?

Do you mind my asking a question?

In the first sentence, the queried objection is to *me*, as opposed to other members of the group, [posing] one of the questions. In the second example, the issue is whether a questions may be asked at all. (p. 13).

A *loaded word* is another example of a semantic cue. These words can direct a reader to respond as the author hoped. Consider the impact on meaning of these examples of word choice: bureaucrat vs. public servant, elitist vs. expert. In *Animal Farm*, Squealer calls it a “readjustment” of food instead of a “reduction” of food.

Other semantic cues include *multi-meaning words*. G. K. Chesterton gives an example, “The word *good* has many meanings. For example, if a man were to shoot his grandmother at a range of 500 yards, I should call him a good shot [accurate] but not necessarily a good man [morally upright].”

SYNTACTIC CUES (WORD ARRANGEMENT)

These cues involve how words are arranged in a sentence. We call this the grammar of the sentence. How do they give clues to meaning? Language structure often follows patterns or conventions that make it possible for native speakers to reasonably guess a meaning without necessarily seeing or understanding every word.

Syntax is the way the words are arranged within phases, clauses, and sentences—the conventions of word order in a language. Notice the impact of word arrangement on the meaning of the “same” words in these examples: *The architect plans to create plans for the Shaw’s new home. Crawling is hard for little Charlie, but he is crawling anyway.* The impact of the relationships among the words changes each word’s meaning depending how it functions in the sentence.

Syntactic cues can also be within words. The way individual words are altered within can also indicate their grammatical roles in the sentence. *Morphemes*, the smallest units of meaning within words, can change the meaning of a base word and even its part of speech. For example, the word *happy* (usually an adjective) can

become *happiness* or *unhappily* (a noun and adverb, respectively). The word *build* (usually a verb) can change into *builds* or *built* (inflectional endings signaling verb tense), and it could also be changed into the nouns *builder* or *building* (derivational endings) and into *builders* or *buildings* (inflectional endings added to the derivational endings signaling plurality).

Using the syntactic cueing system is more difficult for non-native speakers because they don’t have the benefit of acquiring the conventions and patterns of the new language through repeated exposures and use since infancy.

VISUAL/SOUND CUES (LETTERS, SOUNDS, SHAPES)

These sight cues can trigger recognition of a word without laborious study of every aspect of the word. Its shape, letters, or groups of letters in a word are clues to what the word is. Using mostly the beginning letters and only as needed the ending and medial letters, readers can often predict whole words when they appear within other cueing systems. The pragmatic cue of *logic* limits the possible options for the language. For example, if the topic is “buildings,” the options for a word beginning with *ch* will be different from the possibilities if the topic is “animals” or is “action.”

The three linguistic systems are embedded within each other and using all three (usually automatically and simultaneously) helps the reader make meaning smoothly from print text. Superior comprehenders show more sensitivity to linguistic cues than do readers who are poorer comprehenders (Isakson, R. & Miller, 1976). Nevertheless, an adequate reconstruction of the author’s meaning must involve the pragmatic cueing system, an explanation of which follows.

Pragmatic Cueing Systems— the Context of the Situation

Cues outside the text impact your reading decisions and behaviors. For example, your current reading situation may be heavily influenced by the demands of your professor, by the amount of sleep you’ve have had, the worries you are dealing with, your purposes for reading, and how much time you have to prepare for the next quiz. These pragmatic cues can be consciously applied as when you have a definite assignment with written purposes for reading, but they can also grab your attention in a surprising and spontaneous way, such as the sudden

connections to other aspects of your life in your memory. These pragmatic cues may be highly relevant for enhancing your meaning making or they can lead you astray into other thoughts and memories. Interestingly the cues are different for each reader and can be different for the same reader rereading the text at a later time for a different purpose. For example, two people reading *Isaiah* will process it much differently if one is a priest using it to prepare a sermon and the other is a person in bed using it to become drowsy. The pragmatic cueing systems are shown in the shaded outer circles of Figure 2 and consist of the following four common types:

LOGIC

The pragmatic cues of *logic* are those that indicate idea relationships across groups of words such as patterns of organization, patterns of reasoning, patterns of phrasing, and patterns of genres within a discipline to clarify the author's propositions and arguments (examples, stories, syllogisms, chronology, description, problem-solution). These cues can include signal words to establish the idea relationships (*except, because, finally, moreover, specifically, third, in addition, in contrast, similarly, etc.*). Logic cues can evoke images or arguments causing readers to respond in often predictable ways. Recognizing what the author is doing can have a major impact on what you take from the text and how you respond to it.

DISCIPLINARY PRACTICES

The various disciplines call on different kinds of processing and reasoning (Shanahan et al., 2011). For example, contrast the role of graphics in math, science, history, and literary texts. In mathematics, the graphics (equations) and prose are of equal importance and are referred to as sentences or concepts, not as separate entities. In science, the graphics and prose overlap to give a different presentation of the same information that helps readers visualize and understand the material. In history, timelines, maps, and photos add information for reference. In literature, the visuals, if any, are usually from the publisher rather than the author, and are to entice readers into the text; nevertheless, visual images are key to processing literature but as images formed mentally with imagination during the reading act. (See other distinctions across disciplines on pp. 312-321, and *discourse community*, in glossary, p. 337.)

THE SOCIAL, POLITICAL, CULTURAL CONTEXT

These cues can be subconscious influences on your reading such as your family's values and your long-term career goals (cultural context). They can also be influences of which you are fully aware, such as peers who want you to play ultimate frisbee right now or an instructor who doesn't accept late assignments (social context). What you willfully or subconsciously allow to influence you may be deciding factors, for example, whether you read a text just to get through it or whether you read it to explore ideas you are keenly curious about.

PRIOR KNOWLEDGE AND DISPOSITION

Sampling the author's information and connecting it with your prior knowledge of how the world works allows you to predict meaning without seeing every word as in "He kicked open the door of the phone _____." But, if you do not have prior knowledge of phone booths prevalent until the 1980's, you might have trouble using the semantic cues the author has provided in the rest of the sentence. Prior knowledge or the lack thereof definitely influences the image you create for these two seemingly similar sentences: *I was attacked by a troll on the bridge* versus *I was attacked by a troll online*.

Your disposition (mood, desires, mental state, physical well-being, worries, level of interest, alertness, etc.) could be considered the psychological context. These cues impact what you take away from a text. This also influences if you draw on your prior knowledge or not. You may have adequate prior knowledge about the text's topic but may not think to use it.

The cueing systems of language, both the linguistic and the pragmatic, build your comprehension of a text. You can then take this understanding to probe for deeper meanings and applications and evaluate them. You are now ready to pull what you have learned so far about the nature of reading process and the cueing systems into a model that can explain academic reading.

Our Metacognitive Model of the Academic Reading Process

"Reading is a stunning and sometimes arduous human accomplishment (Afflerbach, 2007, p. 10). You are not a blank slate to be filled when you approach a

ways (a new word, a new fact) but also in major ways (new insights, enhanced understanding, appreciation for the learning self, ideas for applying or modifying the author's ideas, etc.). You, the reader, have been changed from who you were when you started interacting with a text.

I am forever changed by what I read.

- attributed to author Katherine Paterson

Explanation of the Model

This model is explained as though you are a good academic reader, which you probably are by now. Examples are given to enhance the explanations. These are in quotation marks following an explanation and show the way one reader reads a neuroscience text (Bear et al, 2007). Study the model in Figure 3 as you go through the explanations.

Notice first that *metacognitive awareness* envelopes every aspect of the reading process. This is represented by the shaded background circle. As a good reader, you know what you are doing and why, can recognize a break-down in comprehension, and have the strategic tools to likely remedy the problem so reading can continue. Because metacognitive awareness underlies every aspect of reading well, we call the model "Our Metacognitive Model of the Academic Reading Process."

Start at the top center of the model.

Reader Decides

You decide to read within an inescapable context of many influences. You have a reason for reading—probably two types of purposes:

1. a motivational purpose. For example, "I must do well in this course. This reading assignment, Chapter 2, "Neurons and Glia," is due Wednesday for a discussion followed by an exam that must be completed by Friday, so I will read it and learn from it."
2. a learning purpose to guide the reading. This second type of purpose can be predetermined. For example, the professor said, "I want you to read the part of this chapter that teaches the neuron cell structure, pages 24 to 46. Before you come to class on Wednesday next week, be able to identify each part of the prototypical neuron, explain its function in a basic way, tell how it influences and is influenced by the other parts of the neuron cell. Submit at least one pressing question about neuron cell

structure Monday before midnight." If such purposes are not provided by your professor, you set your own guiding purposes.

Samples

You preview the text by sampling enough of it to see its structure (How is Chapter 2 put together?) and to ascertain what the text offers (What am I going to learn from this text?). Sampling in this way prepares you to learn from the text by orienting yourself to the structure and content of the chapter, building your anticipation, and pulling from memory some of what you already know about the topic.

Senses Demands

From previewing the text and from thinking what the professor expects, you strive for a clear picture of the task ahead, asking such questions as these: "What is the reading assignment exactly? What am I expected to gain from it? How challenging will this reading be for-me? When is it due? When and where will I do it? How do I want to feel about this topic after reading it?"

You react to the demands of the task and think about how to meet those demands. You state what you want from the text and state this in such a way that you will know afterward if and to what degree you have achieved the purpose(s). Such purposes guide your reading. For example, "Before I leave this chapter, I will be able to list all the parts of the prototypical neuron, draw or describe what each looks like, and explain how parts of the neuron function and how they impact each other."

You also bring your attitudes to this text situation. Attitudes are influenced by three factors: 1) Your perceptions of the skills and background knowledge you bring to the task: "Do I know effective strategies and can use them to learn from the academic text?" 2) Your level of confidence: "How confident am I that I can tackle this hard text?" 3) The value you place on reading for a quality education: "Do I think this text will make a difference? To what degree do I value learning this material for now and for the long term?" (Isakson et al., 2016). Your attitudes influence your perceptions of the demands of a reading assignment and how you will go about fulfilling it.

Reconstructs Meaning

This is the text you create in your mind, the "transactional zone" which involves interactions among the author, the text, the situation, and you, the reader (see

Figure 2). All four contribute to the construction of a well-founded and reasoned meaning. This part of the process is where the crucial work takes place to figure out the author's propositions and arguments. As the meaning unfolds, you use metacognitive awareness to validate understanding or to realize you need more work to comprehend well enough for your purposes. For example, "I can describe each part of the prototypical neuron and can draw its structure. I can explain the functions of some of these parts, but I do not understand the role of RNA or how it is processed." Your task in this part of the model is to formulate the author's meaning as accurately as possible and work to understand what eludes you; you try to make sense of it and come to a meaning with which the author would agree.

You must be able to say, with reasonable certainty, "I understand" before you can say . . . "I agree," or "I disagree," or "I suspend judgement."

- Adler & Van Doren, 1972, p. 142

Checks Acceptability

You decide along the way if the text is making sense and if you are reconstructing it in a way justified by the text. This evaluative function of metacognitive awareness comes into play concerning these segments of text, "Am I getting this? Is this making sense? Is the understanding I have gained so far sufficient for my reading purposes?" If yes, you continue reading the text. If no, you reject your interpretation, all or in part, and try to identify and solve the problem of lack of understanding. For example, "I do not understand how RNA works even at a basic level. I must work to understand this!"

Problem Solves

When you sense that something is amiss (as prompted by metacognitive awareness), you pause to identify the break-down in understanding—you try to figure out what the problem is: an unknown word, a convoluted sentence structure, a misread sentence, a complex idea, etc. For example, "I'm confused about the relationship between soma and organelles." Then you do what it takes to return to smooth meaning-making. You draw on what you think will work to remedy the problem, including carefully rereading that part, marking the spot, or reading on to see if the meaning becomes clear with more information. When you work on the trouble spot, you might reason yourself to a good guess, ask questions, predict the answer and seek

verification beyond the text, or use other fix-up strategies until you are satisfied with the meaning you have constructed and can now explain it.

Evaluates and Responds

Issues of judgment are present throughout the reading process—"Am I getting this?", but they become pronounced now that you evaluate the author's overall messages for that text. This is only done when attention to *intellectual etiquette* (in glossary, p. 339) determines that you have fairly and accurately captured the author's message. For example, "I am going to talk myself through the things I'm sure I must know from this chapter. I'm going to look at the drawing on p. 29 'The Internal Structure of a Typical Neuron' and describe and explain every part of it to prove to myself that I know the parts of the neuron cell, basically how they function, and how they interact with the other parts. Furthermore, I am going to focus on the parts that were initially hard for me to be sure I understand them now."

After checking the acceptability of your reconstruction of the author's meaning and solving any problems of understanding, you judge the quality, depth, and breadth of the author's message, and the trustworthiness of the author. You use critical-reading strategies and reasoning to decide if the ideas, arguments, and propositions in the text are to be believed in whole or in part and why or why not. For example, "I will believe this text for now. Why? 1) my professor must think the authors are reputable; 2) This was written by three scholars who check each other; 3) I know too little to argue. But it would be interesting to ask my professor what she would add, delete, or change and why."

Depending on the nature of the text and your purposes, you might also try to figure out the author's underlying assumptions, attitudes, worldview, character, treatment of the audience, social and political stands, etc. and decide if those impact the credibility of the author or the message. You consider the implications and consequences of accepting the author's message. You decide if the author's message should be accepted, rejected, or modified. For example with this "factual" science text, "What do these authors seem to assume about me as a learner and what I already know about neurons? Do they back up their explanations with convincing evidence? Is the way they present their material logical, consistent, clear?"

Transforms (Knowledge)

Your knowledge base is transformed by the messages of the text to some degree, even if you reject

them completely, because you now have information you didn't have before. You integrate what you have learned into your existing understanding of the topic through two processes: *assimilation and accommodation* (see glossary, p. 334). Actually, you have been doing this to some degree along the way probably naturally, but now you grapple with the new knowledge. You do this by fitting it where it belongs with what you already know and change the old knowledge base to account for the new information. For example, "I did a science fair project in 7th grade on semi-permeable membranes and thought I knew a lot. Ha! I just learned how the process works at the molecular level."

You alter your prior understanding to account for these new evolving ideas. But doing so is more than "sliding things over to fit it in." An actual transformation of the existing cognitive structures takes place in your mind. The process is more like adding seasoning to a soup than adding a book to a library shelf—the new information blends with and affects everything that is already there. Even if the change is slight, what you now know is different from what you knew before.

But, meaning-making does not stop with this restructuring: you move on to sample the next segment of text while holding what has been gained so you can further refine and integrate the hypothesized meaning into your way of seeing the world.

Transforms (Behavior)

As noted above, you are inescapably influenced by the "text" whether you mean it to happen or not. You cannot un-see what you have seen. But you can change the degree of influence and the direction of that influence: "Shall I believe this text? Why or why not? If yes, what shall I do or think about it?" Your knowledge of this topic has been transformed by reading. Now, to what degree are you going to allow it to change you as a person? To some degree, you are already a different person, reader, learner than you were before the text; you have expanded your knowledge base and broadened your perspective.

Furthermore, you choose to act because of the reading experience: you can use the knowledge, recognize how it has impacted you, invent new possibilities with it, make decisions based on it, and, certainly because the new learning is now part of your knowledge base, you can activate it to use as the "prior knowledge" you will bring to future texts. For example, "With every chapter I read in this neuroscience text, I become more appreciative of how magnificent the human body is and amazed that the body works as well as it does—all

because of some chemical reactions! I find myself looking at my moving finger and thinking about how that movement works. I also desire to learn more about the nervous system and am developing a keen interest in the history of neuroscience—how these systems and processes were discovered and how the knowledge has evolved over time."

If you learn to realize the special contributions you can make and develop the capacity to benefit from other people's creations, you can flourish as a curious, creative, and critically thinking individual.

-Ken Bain (2012, p. 259)

THREE HYPOTHETICAL READERS USING THE MODEL

Below are examples of three hypothetical readers going through the reading processes of our model: the less successful academic reader, a somewhat metacognitive reader, and an expert reader. The principles and strategies in the handbook can help you become the latter. We urge you to study each figure below for what it reveals about approaches to academic reading. Which reader best represents the way you usually read and why?

The first (Figure 4) represents a mostly non-metacognitive reader, a reader whose purpose seems to be to get through the reading assignment, to get it "done." We have seen some of these readers in our college classes at the beginning of the semester, but usually see great change by the end. Study Figure 4 by flipping back and forth from the model's description of each step (Figure 3) to the example in Figure 4 of this reader related to that step.

The second (Figure 5) represents the reader who is somewhat metacognitive. This reader is one who can be diligent and who wants to learn, not just go through the motions, but who, unfortunately, lacks understanding of good strategies to be able to learn well and efficiently from text. Our classes had many such students; in fact, they took the course because even though they knew they had the motivation and intellect to be good students, they knew they could be better readers if they just knew how. Study Figure 5 by flipping back and forth from the model's description of each step (Figure 3) to the example in Figure 5 of this reader related to that step.

The third example (Figure 6) represents the expert reader. This reader is also diligent, wanting very much

to learn, but who, unlike the first two readers, has keen metacognitive awareness, has a “toolbox” of strategies to use to ameliorate the inevitable reading challenges; and learns with facility from the hardest academic texts. This is not because they are smarter or even more ded-

icated to their studies, but because they know how to be metacognitive and strategic in making meaning from text. Our classes had few, if any, such students at the beginning of the course, but we had many by the end who had transitioned along the continuum from

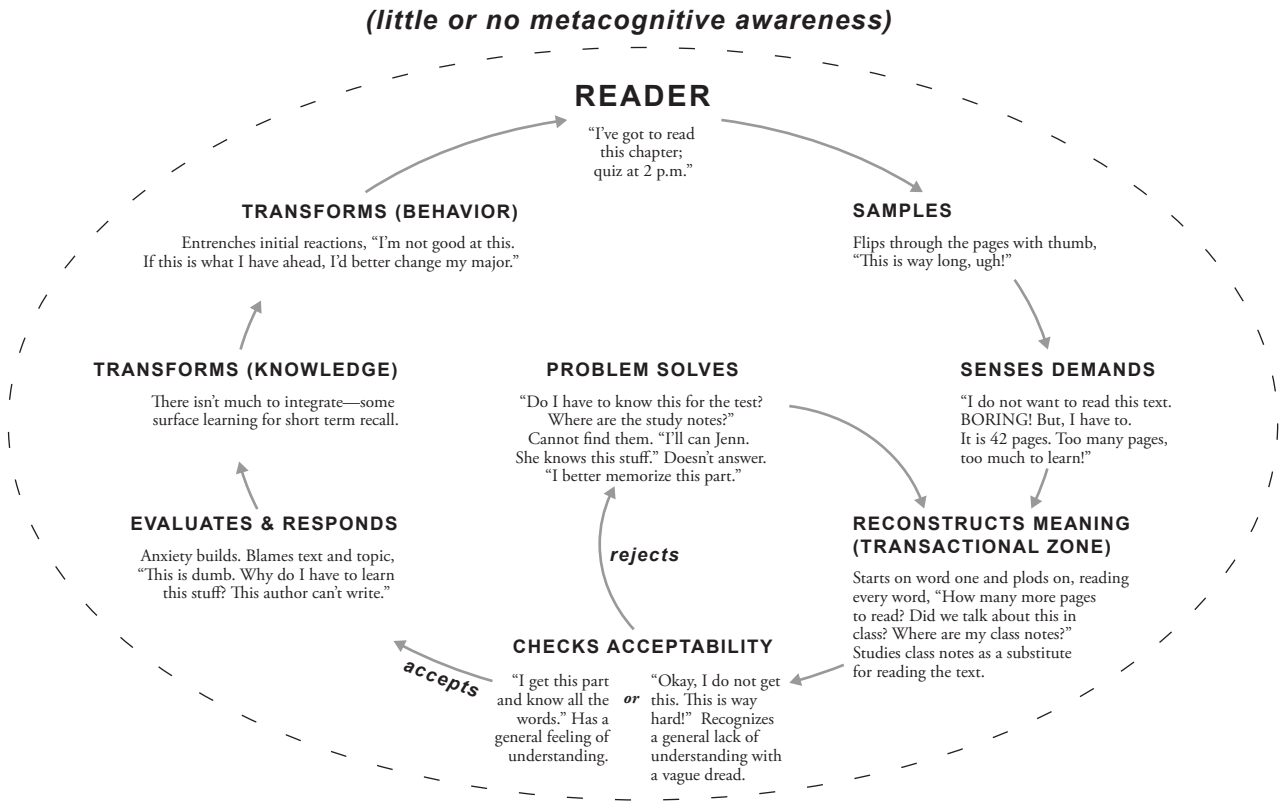


Figure 4: The Less Successful Academic Reader—one who wants to get through the text, to be done.

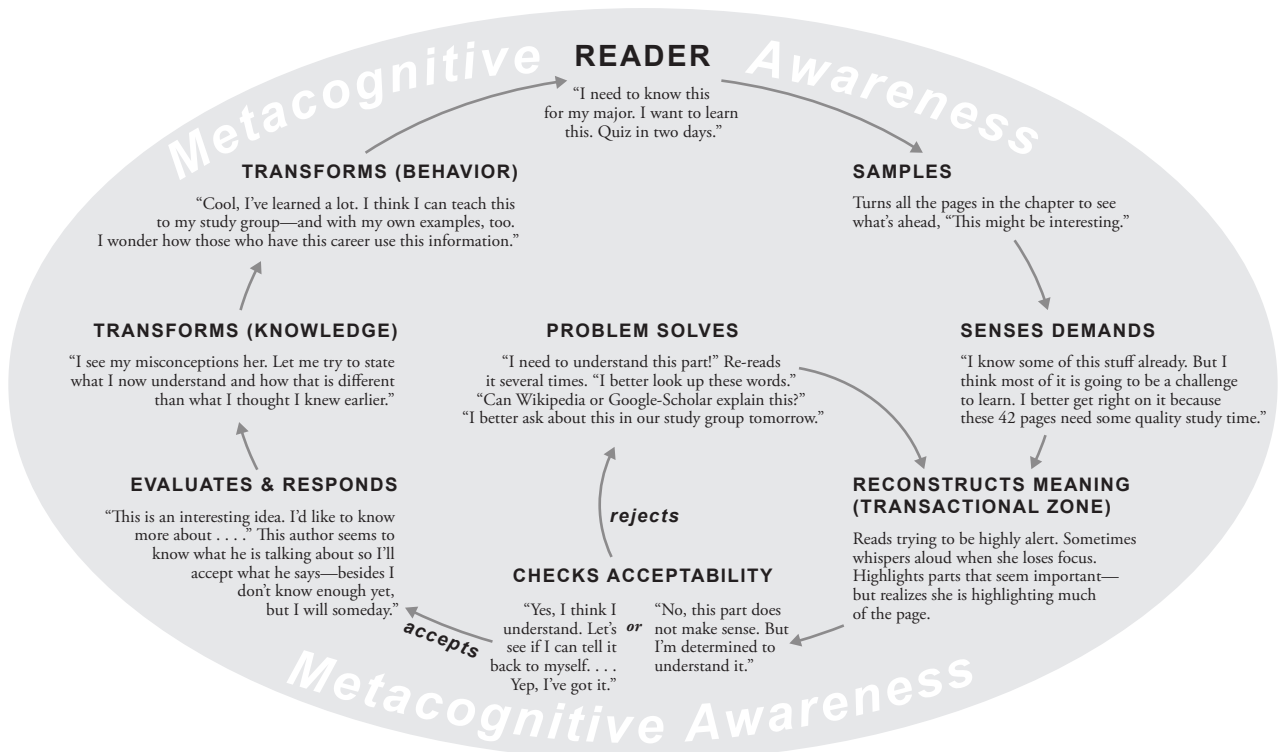


Figure 5: The Somewhat Metacognitive Reader—one who strives to understand the text

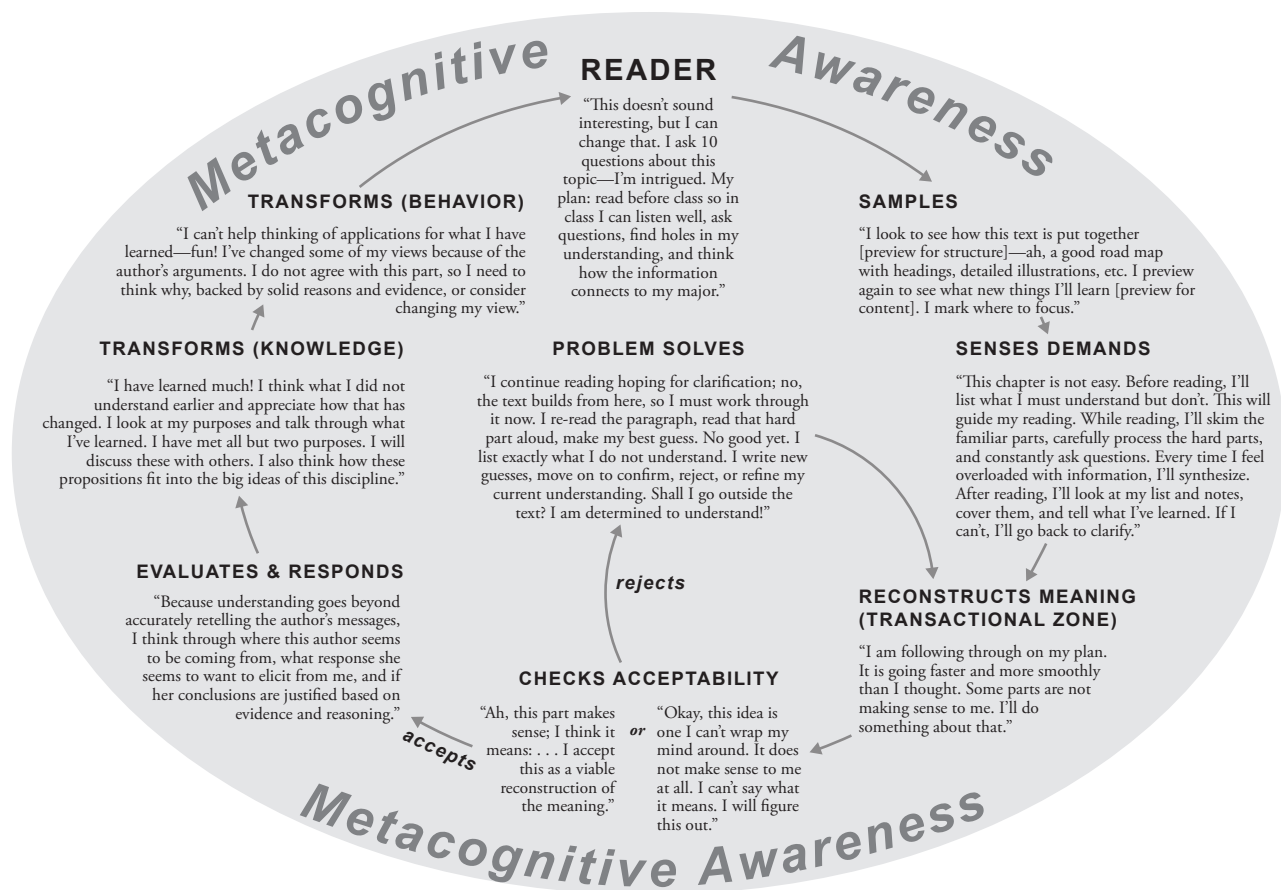


Figure 6: The Expert Reader—one who is highly metacognitive in using effective strategies to meet reading purposes

the above two types of readers toward more expert academic reading behaviors and scholarly mindsets. Study Figure 6 by flipping back and forth from the model’s description of each step (Figure 3) to the example in Figure 6 of this reader related to that step.

What Is Academic Reading?

We define academic reading as reading to learn for an educational purpose in contrast to leisure reading which is reading for a variety of other purposes with little accountability. The purpose for which the person reads rather than the specific text is what differentiates academic from leisure reading. For example, *The Adventures of Huckleberry Finn* can be read for a leisure purpose or for an academic purpose, so can an article on “synaptic transmission” in a science magazine. The distinction between leisure and academic reading has huge implications for reading an academic text well. Part of the difference involves purpose, the set of skills needed, and motivation subdivided into choice, persistence, and performance (Wigfield & Eccles, 2000). Leisure and

academic reading are contrasted in Table 1 (p. 14) along these dimensions. Please, study it now.

If readers approach academic reading the way they do leisure reading, they may do their reading assignments if they feel like it, stop when they feel like it, and not carry away much learning for the required educational purpose. Unfortunately, our research and years of work with college readers reveal that many students do approach academic reading as though it were leisure reading (Isakson & Isakson, in prep). If they do read this way, perhaps they simply do not know how to read an academic text or surely they would not read in such unproductive ways.

Reading a difficult academic text for deep learning demands you have at least three mindsets: 1) having a keen metacognitive awareness to make the strategic decisions for the learning you desire; 2) going beyond a surface understanding to grasp what the author is trying to persuade you to believe and how he or she is doing that (see *Expand Critical Perspective*, p. 203); and 3) approaching the text in discipline-specific ways (see Appendix E, pp. 312–21).

Table 1 Differentiating Academic Reading from Leisure Reading³

Aspect of reading	Leisure reading	Academic reading
Purpose	Usually an entertainment purpose not a “learning” purpose	Deeper learning results for a study purpose than for an entertainment purpose
Choice	Free selection of what to read	More prescribed (assignment, performance expected, etc.)
Persistence	Relatively relaxed; can stop whenever you feel like it	More like work, willpower usually needed; reading has to be sustained to meet learning purposes; requires perseverance and commitment
Performance	None or possibly to share with friends for fun	Central to academic reading such as learning for discussions, tests, presentations, problems to be solved
Set of skills needed	Basic comprehension skills usually suffice	Presupposes and often goes beyond basic comprehension to learning at a deeper level, i.e., identifying what is most important, evaluating arguments, applying the concepts in new situations. A set of strategies are typically employed to facilitate such higher order thinking

Below is a summary of the strategies to help you process your academic texts well. Some strategies may also be used in leisure reading, to be sure, but often inadvertently rather than intentionally. These strategies can become part of your toolbox for learning from challenging texts and can facilitate reading comprehension of complex, academic texts. All are to be modified and integrated depending on your text situation.

BEFORE READING

PREPARE Your Mind to Learn from the Text

Previewing—looking over a text before reading it to form an idea of its structure, what you will be learning from the text, and what parts might be most relevant for your purposes.

Building anticipation—making yourself become enthused about learning the content in the text—that is your task, not the text’s, not the professor’s, but yours.

Setting purpose—determining what you want to gain from reading, then following through by checking during and after reading to see that both the text and the way you are reading it meet your goals. Refining the purposes is sometimes needed as you process the text.

Reading for a quick overview—doing a fast, superficial reading to see the big picture which is more than a preview can provide and to identify the parts to come back to read more carefully.

Activating prior knowledge—relating what you are reading to what you already know about a subject. This awakens your mind to the learning experience and connects and facilitates your learning.

DURING READING

DEMAND of Yourself and the Author Understanding of the Text to the Degree Needed

Synthesizing along the way—using metacognitive awareness to know when your mind is feeling overloaded so you can pause and process what you just read by stating in your own words the essential meaning from that part of the text.

Asking questions—actively seeking information you have decided to learn from a text, both what the professor expects and what you want to know. Being full of curiosity is the essence of becoming a scholar.

Making connections—integrating what you are reading with what you have experienced and already know and thereby modifying your cognitive structures to account for the new ideas/information.

Marking the text—place-holding your thinking for later review and reflection about what you are learning.

Inferring and predicting—using your prior knowledge and clues in the text to reason what the author means but doesn’t state, to derive deeper meanings and logical extensions of the text, to deal with what is hard, and to anticipate where the author is headed.

Determining importance—predicting the most important, essential points needed from the text according to your purpose and your perceptions of what your professor expects, and then tracking these guesses as you read to confirm, reject, or refine what seems to be most important.

Troubleshooting—recognizing a break-down in comprehension, identifying the hard parts, and dealing with them until the text makes sense to you.

³ Isakson, R.L. et al., (2016, p. 115-116).

Visualizing meaning—seeing images in your mind or creating visual representations of meaning.

Interpreting visual and technical documents documents (charts, graphs, equations, photos, drawings, etc.)—analyzing non-prose texts, explaining them, and seeing how they fit into and influence the message of the whole text.

AFTER READING

TRANSFORM Yourself by Processing the Messages of the Text

Checking purposes—proving to yourself that you have met your purpose(s) for reading an academic text.

Reviewing—going over the text again in ways to solidify what you have learned and to put meaning into long-term memory.

Synthesizing—taking the parts of the text and forming a succinct, original statement of the overall meaning of the whole text.

Explaining—providing justifiable accounts of what was read enhanced with your examples and support and by reframing the underlying arguments or propositions in your own words and giving evidence for these.

Analyzing—seeing the big message of the text and finding the important parts, dissecting them, and relating them to each other and to the whole.

Evaluating with critical perspective—considering the truth of what you are reading and not only using the author's information but where that author is coming from: intentions, underlying messages, stylistic maneuvers, and beliefs, etc. Also, you consider the adequacy of your understanding, probe your biases regarding the ideas in the text, and ponder what your intellectual and emotions reactions to the author's messages say about you.

Generating new thinking—taking inspiration from the meanings gained from reading to stimulate creative applications, problem solving, and divergent thinking.

These ways of processing academic texts become natural with reflective practice. Comprehending a text is a challenging process but a captivating one as well. “Comprehension is a consuming, continuous, and complex activity, but one that, for most readers, is both *satisfying and productive*” (Duke & Pearson, 2002, p. 206, italics added).

The Impact of Personal Beliefs about Reading

A strong link exists between what you think reading is and the actions you take as you read (Simpson & Nist, 2002, p. 370). The purpose of the following self-assessment is to open your hidden assumptions about what reading is for you. Then you can recognize why you do what you do when you read. This realization might be the impetus to rethink your personal definition of what reading is if it will make you a better academic thinker and reader than you are now.

Your beliefs about reading have developed over time and have changed depending on content, experience, and task (Schommer-Aikins, 2002). They can likewise be altered by new experiences learning from academic texts. Michael McKenna (2001) speaks to this issue: “Each incidence of reading is predicted to have a small but real effect on attitudes” (p. 139). Accumulated successful experiences with academic reading have been found to nourish a positive attitude (Fresko, 1997; McCabe & Miller, 2003). When you understand the link between what you think reading is and the actions you take while reading, you become empowered to adapt those beliefs and actions to positively impact your growth as a scholarly reader.

Take the self-assessment (pp. 17-18.). Rate yourself along each continuum as per the instructions. Who are you as an academic reader at the time of the assessment? If you took it at the beginning of the course, compare your answers from the two experiences—think of this as a pre-test and a post-test of your growth as an academic reader. Where are you on the path of becoming a judicious, spirited learner when reading academic texts? What can you discover about yourself?

References

- Adler, M., J., & Van Doren, C. (1972). *How to read a book: The classical guide to intelligent reading*. New York: Simon & Schuster.
- Afflerbach, P. (2007). *Understanding and using reading assessment: K-12*. Newark, DE: International Reading Association.
- Bain, K. (2012). *What the best college students do*. Cambridge, MA: Harvard University Press.
- Bear, M. F., Connors, B. W., Paradiso, M. A. (2007). *Neuroscience: Exploring the brain* (3rd Ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Chesterton, G. K. (n.d.). Gilbert K. Chesterton quotes. Brainy-Quote. Retrieved January 25, 2023, from <https://www.brainyquote.com/authors/gilbert-k-chesterton-quotes>
- Christiansen, N. L. (1994-2001). *The critical reader: A rhetoric for reading across the curriculum*. A compilation of lessons for the

- BYU Reading Center. In possession of the author, English Department, Brigham Young University. <http://ctl.byu.edu/critical-reading-mini-lessons>
- Christiansen, N. L. (2003). The master double frame and other lessons from classical education. In M. Helmers (Ed.), *Intertexts: Reading Pedagogy in College Writing Classrooms* (pp. 71-100). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Christiansen, N. L. (2013). *The Figuring style: The legacy of Renaissance rhetoric*. Columbia, SC: University of South Carolina Press..
- Crismore, A. (1981). *The role of tone in processing prose*. ERIC ED227461. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1023.9560&rep=rep1&type=pdf>
- Cummings, C. (March 6, 2008). The art of making text explicit: The processes of comprehension. Presentation at the 1st Biannual Conference of the Brigham Young University-Public School Partnership and the David O. McKay School of Education Alumni Association.
- Dewey, R. (2007). Analysis by synthesis. In *Psychology: An introduction*. Retrieved from http://www.intropsych.com/ch07_cognition/analysis_by_synthesis.html
- Duke, N. K., & Pearson, P. D. (2002). Effective practices for developing reading comprehension. In A. E. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction*. (3rd ed., pp. 205-242). Newark, DE: International Reading Association.
- Fisher, D., & Frey, N. (2014). *Close reading and writing from sources*. Newark, DE: International Reading Association.
- Flaubert, G. (1857). *Madame Bovary* (using an edition published around 1940).
- Fresco, B. (1997). Attitudinal change among university student tutors. *Journal of Applied Social Psychology*, 27(14), 1277-1301. *Doi:10.1111/jasp.1997.27.issue-14*.
- Galda, L., Cullinan, B. E., & Strickland, D. S. (1993). *Language, literacy and the child*. Orlando, FL: Harcourt Brace.
- Genug, J. F. (1901). *The working principles of rhetoric*. Boston: Ginn, Athenæum Press.
- Goodman, K. (1976a). Behind the eye: What happens in reading. In H. Singer & R. B. Ruddell (Eds.) (1976). *Theoretical models and processes of reading* (2nd ed., pp. 470-496). Newark, DE: International Reading Association.
- Goodman, K. (1976b). Reading: A psycholinguistic guessing game. In H. Singer & R. B. Ruddell (Eds.) (1976). *Theoretical models and processes of reading* (2nd ed., pp. 497-508). Newark, DE: International Reading Association.
- Grossman, L. (2013). Rowling thunder: Harry Potter's creator rocks the book work, again. *Time*, 182 (5), 57.
- Harris, T. L. & Hodges, R. E., (1995). *The literacy dictionary: The vocabulary or reading and writing*. Newark, DE: International Reading Association.
- Hofer, B. F. & Pintrich, D. R. (Eds.) (1997). *Personal epistemology: The psychology of beliefs about knowledge and knowing*. Mahwah, NJ: Erlbaum.
- Holschuh, J. P. & Aultman, L. P. (2009). Comprehension development. In R. F. Flippo & D. C. Caverly (Eds.), *Handbook of college reading and study strategy research* (2nd ed., pp. 121-144). New York: Routledge.
- Huey, E. B., (1968) *The psychology and pedagogy of reading*. Cambridge, MAA: MIT Press. (Original work published 1908).
- Isakson, M. B., & Isakson, R. L. (in prep). *How undergraduates and professors read academic texts with implications for teaching*.
- Isakson, R. L., Isakson, M. B., Plummer K. J., & Chapman, S. B. (2016). Development and validation of the Isakson Survey of Academic Reading Attitudes (ISARA). *Journal of College Reading and Learning*, 46(2), 113-138. DOI:10.1080.10790196=5.20'16.1141667.
- Isakson, R.L. & Miller, J.W. (1976). Sensitivity to syntactic and semantic cues in good and poor comprehenders. *Journal of Educational Psychology*, 68, 787-792.
- Kirby, D., & Kuykendall, C. (1991). *Mind matters: Teaching for thinking*. Portsmouth, NH: Boynton/Cook.
- Korzybski, A. (1941). *Science and sanity, an introduction to non-Aristotelian systems and general semantics* (2nd ed.). Lancaster, PA: Science Press.
- McCabe, P. P., & Miller, P. M. (2003). Attitude changes reported by college students who tutored children in reading *Journal of College Reading and Learning*, 34(1), 44-60. DOI:10.1080/10790195.2003.10850155.
- McKenna, M. C. (2001). Development of reading attitudes. In L. Verhoeven & C. Snow (Eds.). *Literacy and motivation: Reading engagement in individuals and groups* (pp. 135-158). Mahwah, N. J.: Lawrence Erlbaum Associates.
- Neisser, U. (1967). *Cognitive Psychology*. New York: Appleton-Century-Crofts.
- Paris, S. G. & Hamilton, E. E. (2009). The development of children's reading comprehension. In S. E. Israel & G. G. Duffy (Eds.), *Handbook of research on reading comprehension* (pp. 32-53). New York: Routledge.
- Pawan, F. & Honeyford, M. A. (2009). Academic literacy. In R. F. Flippo & D. C. Caverly (Eds.), *Handbook of college reading and study strategy research* (2nd ed., pp. 26-46). Mahwah, NJ: Lawrence Erlbaum Associates.
- Pearson, P.D. (2009). The roots of reading comprehension instruction. In S. E. Israel & G. G. Duffy (Eds.), *Handbook of research on reading comprehension* (pp. 3-31). New York: Routledge.
- Pressley, M., & Afflerbach, P. (1995). *Verbal protocols of reading: The nature of constructively responsive reading*. Hillsdale, NJ: Erlbaum.
- Rich, G. L. (May 30, 2013). In raising scores, 123 comes easier than ABC. *New York Times*, A1, A3. http://www.nytimes.com/2013/05/30/education/reading-gains-lag-improvements-in-math.html?pagewanted=all&_r=0
- Rosenblatt, L. (1978). *The reader, the text, and the poem*. Carbondale, IL: Southern Illinois University.
- Schommer-Aikins, M. (2002). An evolving theoretical framework for an epistemological belief system. In B. K. Hofer & D. R. Pintrich (Eds.), *Personal epistemology: The psychology of beliefs about knowledge and knowing* (pp. 103-118). Mahwah, NJ: Erlbaum.
- Shanahan, C., Shanahan, T., & Misischia, C. (2011). Analysis of expert readers in three disciplines: History, mathematics, and chemistry. *Journal of Literacy Research*, 43(4), 393-429. DOI: 10.1177/1086296X11424071. <http://jlr.sagepub.com/content/43/4/393>.
- Simpson, M. L., & Nist, S. L. (2000). An update on strategic learning: It's more than textbook reading strategies. *Journal of Adolescent and Adult Literacy*, 43(6), 528-541.
- Simpson, M. L., & Nist, S. L. (2002). Active reading at the college level. In C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 365-379). New York: Guilford Press.
- Strunk, W., & White, E. B. (1979). *The elements of style* (3rd ed.). New York: Macmillan.
- Whimbey, A. (1975). *Intelligence can be taught*. New York: Dutton.
- Wigfield, A., & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology*, 25(1), 68-81.

“What Kind of Academic Reader Am I?”

Use this continua to assess your current position on the path to becoming an astute, courageous learner when reading academic texts. The continuum for each belief ranges from passive, surface thinking (on the left) to active, deep thinking (on the right). Rate yourself along each continuum with an X. The numbers from 1 to 6 help create a simple reference for discussion, but you may mark anywhere on the continuum that captures your perception of your current self when reading academic texts. Revisit these continua over time to assess your growth as an academic reader.

<i>Passive, surface readers</i>	READER'S JOB	<i>Active, deep, metacognitive readers</i>
Receive knowledge from text (idly absorb print)	←————→ 1 2 3 4 5 6	Actively reconstruct the author's meaning as accurately as possible
Learn by saying back without actually understanding (at best can restate, translate, and remember short term—for an exam)	←————→ 1 2 3 4 5 6	Learn by understanding, (can supply examples, relate ideas to prior knowledge, evaluate arguments, infer, & remember long term)
Go through the motions of reading, get it done; skip trouble spots, having few options if comprehension breaks down	←————→ 1 2 3 4 5 6	Read with purpose and desire to learn; address trouble spots fearlessly, having a plethora of strategies and tools to draw on
Give little attention to purposes for reading; move through pages with little thought	←————→ 1 2 3 4 5 6	Have purposes at forefront of thinking, willing to stray from purpose with good reason and change it if needed
Seldom consider applications, unless directed; are not stimulated by the reading to think beyond it	←————→ 1 2 3 4 5 6	Consider applications and uses for the information; explore ideas stimulated by the text
Accept what the dominant group says	←————→ 1 2 3 4 5 6	Make independent decisions justified by reasoning, and by considering evidence and diverse perspectives

<i>Passive, surface readers</i>	READER'S BELIEFS about the nature of knowledge and learning	<i>Active, deep, metacognitive readers</i>
Consider knowledge as unchangeable, permanent	←————→ 1 2 3 4 5 6	Consider knowledge as fluid, incomplete, and tentative
Gain new knowledge by imprinting text information into the mind	←————→ 1 2 3 4 5 6	Construct knowledge by considering, interpreting, evaluating information, finding evidence, and using text information
Regard intelligence and learning abilities as fixed and unchangeable	←————→ 1 2 3 4 5 6	Regard intelligence and learning abilities as expandable with hard work
See restating text information as evidence of having read well	←————→ 1 2 3 4 5 6	See applying the text information to new settings as evidence of having read well

Your beliefs about knowledge certainly have an impact on how you read. These beliefs develop over time and change depending on content, experience, and task (Schommer-Aikins, 2002). You must understand the link between your personal theories toward how to read and the actions you take while reading (Simpson & Nist, 2000).

These continua have ideas adapted from Bain (2012), Christiansen (1994-2001), Christiansen (2013), Genung (1901), Hofer & Pintrich (1997, p. 92), Holschuh & Aultman (2009, p. 127-8), Kirby & Kuykendal (1991, p. 72), and Pawan & Honeyford (2009, p. 28).

<i>Passive, surface readers</i>	READER'S MINDSET	<i>Active, deep, metacognitive readers</i>
Tend to procrastinate and then cram; can dread the act of reading	←————→ 1 2 3 4 5 6	Make time to think, elaborate, connect, and integrate; look forward to the learning experience
Have intention to get by; shallow understanding okay	←————→ 1 2 3 4 5 6	Have intention to learn deeply, to see underlying principles and problems, to critique, innovate, and develop expertise
Rush to certainty and permanence	←————→ 1 2 3 4 5 6	Deal with ambiguity through inquiry, flexibility, and imagination
Have an unquestioning stance; ask inauthentic or no questions	←————→ 1 2 3 4 5 6	Have a questioning stance, born of genuine curiosity
Stay with the familiar, avoid disturbance of values and prior understanding	←————→ 1 2 3 4 5 6	Tolerate disturbance of values and prior understanding, expecting this as part of learning; willing to entertain diverse perspectives
Are satisfied with first attempts; comfortable with a single explanation, “one-shot” answers	←————→ 1 2 3 4 5 6	Look for alternative explanations; feel compelled to consider different views, “What else could explain this?”
Are annoyed by trouble spots while reading	←————→ 1 2 3 4 5 6	Are intrigued by problems while reading; enjoy the challenge
Need frequent prodding by self and others to read, “Something I have to do and get done”	←————→ 1 2 3 4 5 6	Approach text with initiative, enthusiasm, self-direction, “Something I value, glad for opportunity to explore this”
Give up easily: “Can’t do this alone” or “Not worth the effort”	←————→ 1 2 3 4 5 6	Persevere, are deliberate and reflective, willing to search extensively
Are afraid of being wrong, view failure as sign of inadequacy and weakness, are hesitant to try	←————→ 1 2 3 4 5 6	Realize power of error in learning, seek feedback, view failure as a step to success—as an opportunity to go in a different direction; continue to take risks; change thinking willingly with good reason
Do not want challenges to their world view, avoid or discount the new ideas	←————→ 1 2 3 4 5 6	Accept cognitive confrontation, and work through this disequilibrium to consider adapting their world view

<i>Passive, surface readers</i>	READER'S BELIEFS about the text's role	<i>Active, deep, metacognitive readers</i>
View text as being right	←————→ 1 2 3 4 5 6	View text as the medium the author uses to argue for a perspective
Regard text as words that convey meaning	←————→ 1 2 3 4 5 6	Regard text as an author's construction of meaning built with linguistic and pragmatic cueing systems for the reader to reconstruct the author's meaning
Blame author if text isn't immediately understandable	←————→ 1 2 3 4 5 6	Realize that many factors impact the difficulty of the text—not just author's writing ability

ThinkSheet about

What Is Reading?

Answer the following questions after reading the above essay and studying the figures therein.

1. Find evidence in the above writings and Figure 1 to support this statement: “Reading is an ACTIVE process.”
2. Using the comments of the literacy researchers (pp. 2-4), explain how reading for meaning is “a goal-directed activity,” “a selective process,” and “an event.”
3. What is in your “mental backpack” to use as a reader to make sense of your difficult, academic texts?
4. Using the explanation of “cueing systems” (pp. 5-7), create your own explanation of how reading works and end with a useful definition for you.

