

Building Comprehension Through Pre-, During-, and Post-Reading Strategies

Chapter Four

- I. Preparing for Comprehension: Teaching Text Structures and Patterns
- II. Activating Comprehension: Pre-Reading Strategies
- III. Constructing Comprehension: During-Reading Strategies
- IV. Extending Comprehension: Post-Reading Strategies

Introduction

In the previous chapter, we discussed our goal of creating “independent” readers. As you recall, independent readers are those who are constantly monitoring their understanding of the text as they read it. These individuals are predicting, questioning, clarifying, summarizing, connecting, and evaluating as they read, essentially engaging in a dialogue with the author and themselves in their minds. One overarching strategy for helping struggling readers see that reading to learn requires active engagement with the text is the teacher think aloud that was discussed in chapter three.

In addition to showing students the inner workings of a good reader’s mind, you will need to provide students with an array of concrete strategies they can use to *practice* the comprehension strategies used by an independent reader. Indeed, struggling readers need to be reminded again and again that they should be “reading with (their) mind as opposed to just reading with (their) mouth.”⁸³ Specific strategies that help students “read with their minds” are the focus of this chapter.

Hand-in-hand with teaching students specific techniques for practicing the skills of independent readers is reiterating to your students that reading is a process that starts before (and that does not end until well after) a student has a text in his or her hands. That is, reading is an active process that requires critical thought before, during, and after engaging the text. In your math, English, science, social studies, or language class, you should teach and model this complete approach to the reading process. In this chapter, we will discuss a variety of strategies that are employed before, during, or after reading a text to help students comprehend. Comprehension is critical: not only is comprehension of what you and your students read the key to reaching the content-specific goals of your long term plan, but helping your students to better read and comprehend the written word will greatly enhance their life prospects.

I. Preparing for Comprehension: Teaching Text Structures and Patterns

Before we discuss specific pre-, during- and post-reading strategies, one overarching key to comprehension is the understanding of a text at the structural and organizational level. As a content area teacher, one of your responsibilities will be to teach students how to learn from a textbook—or other form of reading material—that is replete with structural and organizational elements that either enhance comprehension (if used properly) or simply provide more confusing text on a page. Students who can understand text structures, meaning chapter titles, section headings and subheadings, bolded vocabulary, figures, captions, and keys, are much more able to access the information in a text. Donna

⁸³ Schoenbach, Ruth et al. *Reading For Understanding: A Guide to Improving Reading in Middle and High School Classrooms*. San Francisco: Jossey-Bass, 1999, p. 74.

Pre-, During-, and Post-Reading Strategies

Ogle, literacy specialist and source of the now ubiquitous KWL Chart discussed in the next section, explains:

We also need to help students identify the structure and the organization of ideas in text. With fiction, most students can anticipate the structure of the story, but when they read informational text, even if it's about frogs and toads, readers don't know how the information will be structured. If students preview the materials and get a sense of...how the author decided to organize the information, then they can use that sense of organization and priority in their own learning.⁸⁴

Textbook writers “incorporate text structures believing that readers will use these supports in order to effectively make sense of the text. When students don't understand the purpose of conventional supports, they often miss flags that enable them to focus their reading, monitor understanding, and quickly retrieve text for study purposes.”⁸⁵ To prepare students to comprehend a text with the help of text structures, you should show them the purpose of text structures. For example, the purpose of the chapter title in a social studies, science, or math book is to illustrate the main idea of what students are about to read. In contrast, the purpose of a chapter title in a novel is usually to engage the reader and entice them to keep reading. You might use “hidden text structures” to help students predict and then analyze various text structures and their purposes (see p. 11 in the **Secondary Literacy Toolkit**, which can be found online at the Resource Exchange on TFA.Net). Or, at the beginning of the year you might have students complete a “textbook feature analysis” (see p. 12 in the **Secondary Literacy Toolkit** for an example) to introduce students to how the textbook is physically arranged and how various textual elements are used to cue the reader. ✂

I explicitly taught my 8th grade U.S. History students how to approach an informational textbook. We studied the structure of textbooks, the different signals that textbook authors give readers to show the comparative importance of words and sections, and the most effective ways to use chapter and section headings in previewing content. Once my students became more familiar with how informational texts are put together, they were better able to learn from the text.

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In addition to teaching students to notice the physical “signposts” of a text, you might teach students to recognize patterns of writing that are often contained in textbooks or other pieces of reading. Here is a non-exhaustive list of the various patterns used in writing:

- **Generalization/Principle:** a general statement followed by supporting ideas or arguments.
- **Chronological Sequence:** a chronological list of events or actions. Some examples include historical accounts or the steps to balance a chemical equation.
- **Comparison/Contrast:** a comparison of two or more things, such as the process of multiplication and division, or the role of women in World War I versus World War II.
- **Concept/Definition:** the introduction of concepts such as anarchy, imaginary numbers, or conservation of energy, and then definition through greater detail and examples.
- **Description:** the description of an event, process, or person, with elaboration on key characteristics.
- **Episode:** the “who,” “what,” “when,” “where,” “how,” and “why” of an event.

⁸⁴ D’Arcangelo, Marcia. “The Challenge of Content-Area Reading: A Conversation with Donna Ogle.” *Educational Leadership*, Vol 60 No 3, November 2002, p. 14.

⁸⁵ Allen, Janet. *Tools for Teaching Content Literacy*. Portland, ME: Stenhouse Publishers, 2004.

- **Cause/Effect:** an explanation of various causes and their corresponding effects, such as the discovery of gold as one cause of Westward Expansion, or the addition of salt to water having an effect on the freezing and boiling points of water.
- **Problem/Solution:** a description of a problem (such as a conflict between two characters, or insufficient supplies of petroleum) and a solution (how the characters resolved the conflict, an argument for alternative energy sources).

Signal Words: Clues to Structures

Good readers and writers play close attention to “signal words,” written cues that reveal the author’s intended text pattern and help the reader navigate a text. For example, signal words such as “as opposed to” and “even though” may indicate a Comparison/Contrast text pattern. Signal words such as “accordingly” or “may be due to” would indicate a Process/Cause-Effect text pattern. For a list of words that might indicate different text patterns that you can use with your students, see “Signal Words for Determining Text Patterns” in the **Secondary Literacy Toolkit** (p. 13); this Toolkit can be found online at the Resource Exchange on TFANet. ✕

As a further example, consider the first of these, the “Generalization/Principle” pattern. This text structure—the idea that one starts with a general proposition and then provides several more specific supporting ideas for that topic—is fundamental to almost all expository writing and is illustrated in the following paragraph:

Teaching students to recognize particular text structures has an immense impact on their reading comprehension. These patterns help students comprehend what is most important in a text, see connections between ideas, and later apply these same text structures to their own writing.

Obviously, this simple (and true!) statement follows a basic pattern of written communication. We begin with the thesis and then we support it. As discussed above, students have to be taught such patterns. Students who understand them have a great advantage in being able to comprehend content-area reading, and they can then apply similar structures to their own writing, as we’ll discuss in chapter five.

So, how do I teach these “text structures” to my students?

Most successful literacy teachers use explicit instruction and graphic organizers to teach students text structures. As explained elsewhere, graphic organizers are visual depictions of ideas and their relationships to one another. As Brad Baxendell (North Carolina ’94) explains in his article, “Consistent, Coherent, Creative: The 3 C’s of Graphic Organizers,”

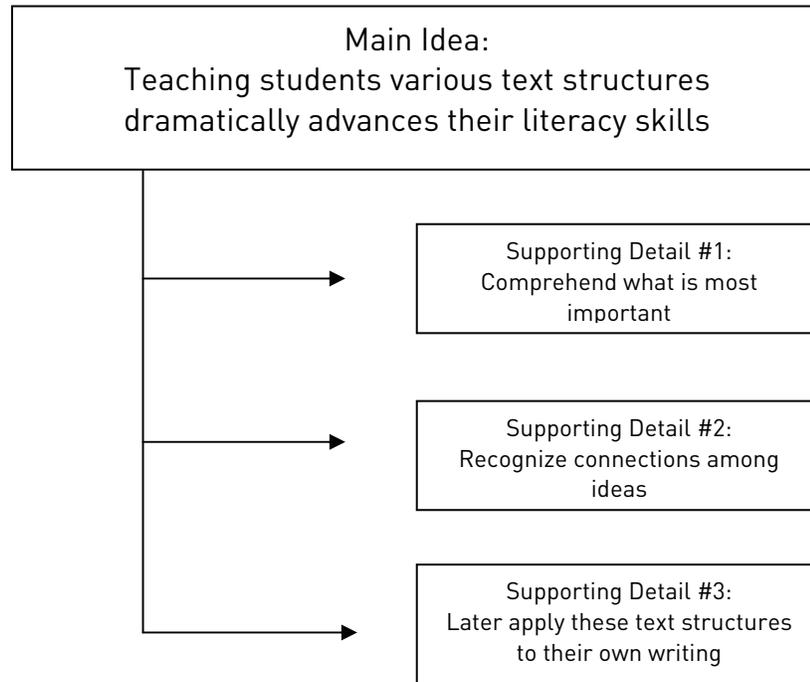
Graphic organizers help students see how ideas are organized within a text or concept. Learners can then apply this structure to their own ideas. Learners are thus better able to understand relationships between complex ideas or to arrange information to facilitate retention and recall.⁸⁶

⁸⁶ Baxendell, Brad. “Consistent, Coherent, Creative: The 3 C’s of Graphic Organizers.” *Teaching Exceptional Children*, Jan/Feb 2003, p. 46.

Pre-, During-, and Post-Reading Strategies

For example, for the Generalization/Principle pattern illustrated by the paragraph above, the following graphic organizer would be a useful structure to help students analyze passages in the text with this text pattern:

Generalization/Principle

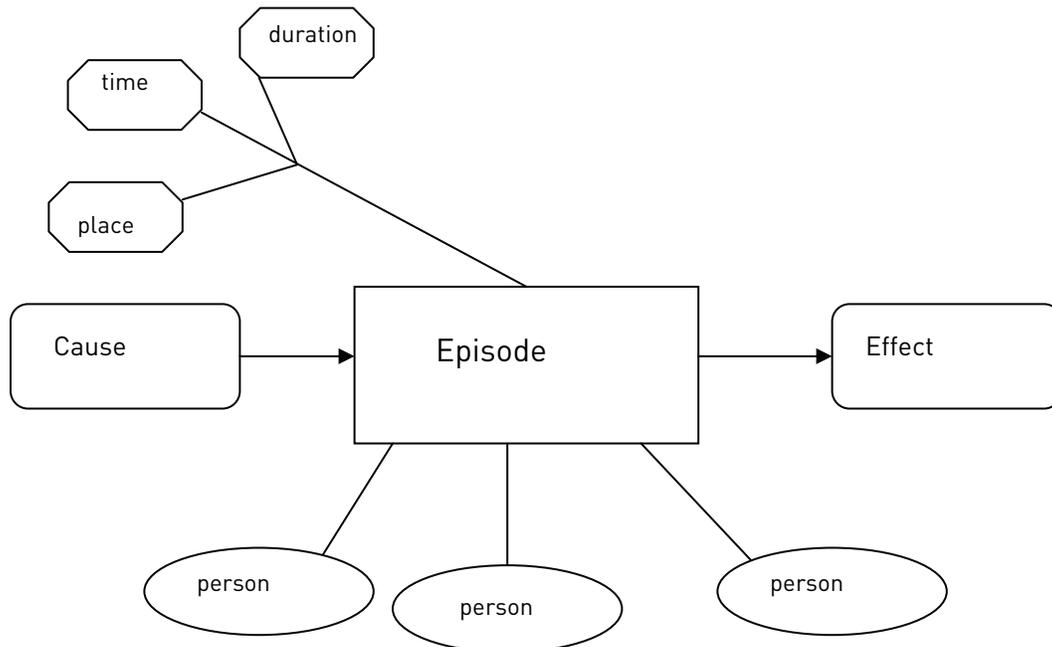


This Generalization/Principle text structure is one that certainly appears in all subject areas. Through practice reading texts and mapping the ideas with a graphic organizer such as this, your students will be come very familiar with (and therefore more adept at using in their own writing) the Generalization/Principle text structure. Engaging with reading and writing in this active manner will lead to longer and deeper memory of the content of the writing as well.

Similar pairings of text patterns and graphic organizers can be created for each of the text structures listed above. As another example, consider the "Episode Pattern." This text structure discusses the who, what, when, where, how, and why of an event. Those elements are indicated by the following questions:

- What event is being explained or described?
- What is the setting where the event occurs?
- Who are the major figures or characters that play a part in this event?
- What are the specific incidents or events that occur? In what order do they happen?
- What caused this event?
- What effects has this event had on the people involved?
- What effects has this event had on society in general?

One possible graphic representation of this text pattern, which could be a nice complement to a social studies lesson, might therefore be:



By providing opportunities for students to make a graphic representation—whether a picture, a model, a graphic organizer, or a mental image—researchers have found that the creation of these “non-linguistic representations” stimulates activity in the brain and boosts academic achievement by improving comprehension. This apparently is due to the fact that humans store data in two ways: through words and through images. By having students create graphic organizers or make pictures, rather than only relying on traditional written or oral forms of communicating facts and concepts, students will have multiple avenues for accessing the information they need and building comprehension as they read to learn.⁸⁷

The techniques of teaching your students about text structures and patterns are not tied to a specific phase of the reading/time continuum, but rather are overarching strategies for preparing your students to comprehend a multitude of texts. In the next section, we will take a closer look at a number of more discrete strategies, organized by the phase of reading in which they are most appropriately used.

II. Activating Comprehension: Pre-Reading Strategies

Some teachers might think simply *telling* students about a text is a sufficient pre-reading strategy, but it is incorrect to assume that only a brief lecture about the reading will push struggling readers to engage with the text in their own minds. In fact, relying solely on such a practice will only enable struggling readers to continue to be dependent on the teacher to make meaning of the text. In addition to fostering self-sufficiency, you must remind struggling readers “that comprehension begins prior to reading and extends into the discussions they have after they’ve finished reading. Many dependent readers think of comprehension only as answering questions correctly after reading the text. That’s too late. Pre-reading

⁸⁷ Marzano, Robert. *Classroom Instruction That Works*. Alexandria, VA: ASCD, 2001, p. 73.

Pre-, During-, and Post-Reading Strategies

strategies that focus on active engagement with the text help struggling readers do what good readers do—think all throughout the reading process, not just at the conclusion.”⁸⁸

As the name suggests, pre-reading strategies actively involve students in the themes, concepts, and vocabulary of the text before they even pick up the article, textbook passage, or piece of literature. Effective pre-reading strategies also stimulate students’ prior knowledge about a topic; when the knowledge that we already have in our heads about a topic or a related topic is pushed to the forefront of our minds, it is easier to make connections between what we are learning from the text and what we already know, make predictions about what will happen next, and organize what we read into the mental file folders that already exist in our brains.

We have selected five pre-reading strategies that will draw students into the reading process before they even open the text. With the exception of the Character Quotes strategy (which may be less helpful for math and science), all of these are appropriate for any content area.

Pre-Reading Strategies	Math	Science	Language Arts	Social Studies
KWL or KWL Plus	x	x	x	X
List-Group-Label	x	x	x	X
Anticipation Guide	x	x	x	X
Probable Passage	x	x	x	X
Character Quotes			x	X

1. KWL or KWL Plus Chart. The “KWL” chart is a staple in most reading-focused classrooms, from Kindergarten through high school. This simple, three-column chart is a way to (1) bring students’ prior knowledge about a topic to the forefront of their minds, (2) identify questions that they will look to answer while reading the text, thereby establishing a purpose for reading and building motivation to read, and (3) organize the information learned while reading. The basic directions for constructing a KWL chart with your students are straightforward:

- a. Write the main topic of the unit, selection, or story on the top of the chart.
- b. Ask to students to contribute what they **know** (K) about the topic. Some teachers give each student a copy of a KWL chart, providing time for students to individually brainstorm what they know before compiling the responses of the entire class on a larger class chart.
- c. Once you have established a fairly comprehensive list of what students already know about a topic, ask students to consider what they **want to know** (W) about the topic. Students often struggle with the (W) section, perhaps in part because they are not used to asking questions about what they are about to read, or perhaps because they don’t want to reveal things they don’t know to their peers. As you lead students to complete this chart, it will be important to draw out questions *based on what students have already contributed to the K column*. Therefore, instead of asking the broad question, “Ok, so what do we want to know about Rattlesnakes?” you might ask, “Several of you noted that Rattlesnakes have sharp fangs. What sorts of things do you want to find out about their fangs?” If students are still non-generative, model the asking questions process for them: “I wonder how similar their fangs are to our teeth, and how different they are from our teeth? Is anyone else interested in finding out the answer to that question?” Once you or a few students start to provide questions, usually more and more questions will emerge.
- d. Next, read the selection or begin the unit. As students read, encourage them to record answers to their questions or new information in the **learned** (L) column on their individual KWL charts. When the class is finished with the unit, work together to complete this column on the class chart.

⁸⁸ Beers, Kylene. *When Kids Can’t Read: What Teachers Can Do*. Portsmouth, NH: Heinemann, 2003, p. 101.

The “plus” version of the KWL chart requires students to go a step farther and categorize what they have learned into various groups (an excellent way to categorize information learned in preparation for writing). The learned statements can then be transferred to a graphic organizer, which would serve as an outline for the students’ writing.

Consider the following example of a KWL Plus chart from a sixth grade science class in which the topic of study was rattlesnakes:

Topic: Rattlesnakes		
Know	Want to know	Learned
<ul style="list-style-type: none"> • Sharp fangs (D) • Poisonous (A) • Live in deserts (L) • Live in holes (L) • They make a rattling sound before they bite (A) • Diamondback is one type (D) • Eat mice (A) 	<ul style="list-style-type: none"> • How are their fangs different from our teeth? • Are all rattlesnakes poisonous? • Will you die if a rattlesnake bites you? • Where does the rattling sound come from? • What medicine stops the poison? • Do any live in my city? 	<ul style="list-style-type: none"> • Some rattlesnakes have hollow, hinged fangs that can swing forward and inject poison. (A) • All rattlesnakes are poisonous (A) • Often warn before biting by shaking the “rattles” on the end of their tail (A) • Rattle is a set of horn-like pieces joined together, made of keratin (D) • Member of pit viper family (D) • 28 varieties from Canada to South America (L) • Many found in Texas (L) • Some bites can be fatal, especially to small children (P) • The only way to stop the poison is to administer an antivenom (P)
<p>Categories: Where they live—Location (L), What they do—Abilities (A), How they look—Description (D), How they affect people (P)</p>		

The benefits of a KWL chart are far-reaching. Giving students the opportunity to think about what they know up front and to hear what their classmates know brings prior knowledge to the surface and fosters connections between old and new information. The chance to ask questions and wonder aloud about other information establishes a purpose and builds motivation for reading. The record of specific information they have learned not only hammers home the content but also reinforces the purposes of reading generally. Finally, the categorization process helps students organize the information they have read and is fantastic practice for students learning to write more clearly and logically.

The universality of the KWL chart (both across subject matters and age groups) makes it a highly important tool to meld content area and reading/writing instruction.

2. List-Group-Label.⁸⁹ Similar to the KWL chart, the List-Group-Label strategy gives students a forum for accessing prior knowledge before reading a text or beginning a unit of study. Here are the steps:

- a. **List:** Determine a word or phrase that connects to your reading or unit of study that students will have some familiarity with already. For example, prior to reading a passage on the three branches of government, you might ask students to list words they associate with *leading a country*. Before beginning a unit on the standard units of measurement in a seventh grade math classroom, a teacher might ask students to brainstorm 15 words they associate with the word *measurement*. Require students to list at least a minimum number of words (10 or more).

⁸⁹ Allen, Janet. *Tools for Teaching Content Literacy*. Portland, ME: Stenhouse Publishers, 2004.

Pre-, During-, and Post-Reading Strategies

- b. **Group:** Put students in pairs or groups and ask them to combine their individual lists. While they do this, they should create categories for similar words on everyone’s lists and group their words into these categories.
- c. **Label:** Students should determine an appropriate label for each group they have created.

An example of the results from a List-Group-Label exercise done prior to beginning a 9th grade biology unit on viruses is below:

List-Group-Label: <i>Getting Sick</i>	
<p><i>People/places who help people who get sick</i></p> <ul style="list-style-type: none"> ● doctors ● nurses ● hospitals 	<p><i>How people get sick:</i></p> <ul style="list-style-type: none"> ● coughing and sneezing near someone ● sharing cups and utensils ● eating food that has spoiled ● they don’t dress warmly enough
<p><i>Stuff that happens because people get sick</i></p> <ul style="list-style-type: none"> ● People feel really bad ● People stay home from school or work ● People get high fevers ● People get strange rashes ● People throw up ● People die sometimes 	<p><i>Types of sicknesses</i></p> <ul style="list-style-type: none"> ● The flu ● A cold ● Chicken pox ● Bronchitis ● AIDS

The teacher, by previewing students’ charts, would obtain a sense of students’ levels of understanding, various misconceptions (i.e. not understanding the relationship between getting cold and getting sick), and prior experiences with the issue that could serve as instructional “hooks.”

3. Anticipation Guide. An Anticipation Guide provides a structured forum for students to think carefully about a text’s key themes or concepts before they actually read the text. Students mark whether they agree or disagree with a series of statements and discuss their stance with their classmates. As a result, while reading, students are more likely to compare what they already think to the themes or concepts expressed in the text. In a sense, an Anticipation Guide helps students see that “instead of simply an assignment, reading...becomes part of an ongoing conversation students have joined.”⁹⁰ Your brief statements should be those that aren’t obviously true or false, but are purposefully debatable, as those will most powerfully engage students in deliberation and ready their minds to engage with the text. For example, true debate could occur with a statement such as, “People living near power plants should be able to recommend limits on the levels of pollution produced by the power plants” as opposed to, “Burning coal in power plants produces pollution and causes acid rain.” The directions for implementing an Anticipation

In order to get my students—especially my struggling readers—more involved in the text, I’ll do a lot of frontloading strategies before we read. For instance, I’ll engage the students in a discussion about some of the main themes of the text by using an Anticipation Guide. For this strategy, I come up with three main statements that relate to the theme of the story (“It is never ok to steal,” or “Parents must always support their child, no matter what the child does”). Students then decide whether they agree or disagree with the statement, and discuss their reasons for doing so. This prompts the students to engage in the theme of the story before they even pick up the text.

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⁹⁰ Daniels, Harvey and Steven Zemelman. *Subjects Matter: Every Teacher’s Guide to Content-Area Reading.* Portsmouth, NH: Heinemann, 2004, p. 108.

Guides are simple:

- Identify major themes or concepts in the text that the students will be reading. Focus especially on experiences and perspectives held by your students that will be supported or challenged by the reading.
- Create statements that will provoke discussion. A few statements will suffice, no more than ten should be used, and five or fewer is preferable.
- Prior to reading, present the guide on the overhead or give students a copy; ask them to reflect on their beliefs about the statements. Engage the class in a discussion about students' responses, being careful to neither affirm nor deny students' positions.
- Read the text.
- After reading the text, discuss how students' stances were either strengthened or challenged as a result of how the themes or concepts were approached in the text.

Consider the example Anticipation Guide shown below, which might be given to high school English students prior to reading Shakespeare's *Romeo and Juliet*.

***Romeo and Juliet*⁹¹**

Read each of the following statements and write whether you agree or disagree with each one.

Before Reading		Statement	After Reading	
Agree	Disagree	It is acceptable to disobey your parents.	Agree	Disagree
Agree	Disagree	It is always wrong to commit suicide.	Agree	Disagree
Agree	Disagree	It is right to seek revenge if someone treats you wrong.	Agree	Disagree
Agree	Disagree	It is appropriate to marry without the blessing of your parents.	Agree	Disagree
Agree	Disagree	If you accidentally kill someone, you should be punished.	Agree	Disagree

If you wanted to use the Anticipation Guide to bring to light the misconceptions that students may have about the concept at hand (which may be especially helpful in a math, science, or social studies class), your statements *would* take more of the true/false form than of the debatable form. In this case, using the Anticipation Guide serves more as a pre-assessment of student knowledge. Consider the following example prepared for a math class assigned to read a section of their textbook on multiples and divisors:

Multiples and Divisors		
Directions: In the column below labeled "Me," place a check next to any statement that you think is true. After reading the text, compare your opinions on those statements with information contained in the text.		
Me	Text	Unknown statement
		(1) Multiples relate to multiplying and divisors relate to dividing.
		(2) Zero is a multiple of any number.
		(3) Zero is a divisor of any number.
		(4) Multiples of 2 are called even numbers.
		(5) Multiples of 1 are called odd numbers.
		(6) Every number is a multiple of itself.
		(7) Every number is a divisor of itself.

Regardless of the specific form your Anticipation Guide takes, it should serve to get students actively thinking about the text they are about to read, thereby priming the pump for connecting their own thoughts and beliefs to the themes or concepts of the text.

⁹¹ Modified from Allen, Janet. *Tools for Teaching Content Literacy*. Portland, ME: Stenhouse Publishers, 2004.

Pre-, During-, and Post-Reading Strategies

4. Probable Passage.⁹² This technique engages students in contextual study of vocabulary before reading a passage, which is much more effective than giving students a list of words and requiring them to use a dictionary to define them one by one. The Probable Passage exercise asks students to work collaboratively to place 8–15 key terms, phrases, or proper nouns from the piece they will read into various categories determined by the teacher. Some of the terms should be familiar to students while others should be new. As illustrated in *Subjects Matter*, the word list from a news article on the spread of the disease SARS might include: *Hong Kong, SARS, respiratory, epidemic, coronavirus, genetic shift, travelers, virulence, Center for Disease Control and Prevention, quarantine, death rate, and co-evolution*. Students would then need to group those words into the following categories: *Problem, Setting, Causes, People, Solutions, and Unknown Words*.⁹³

Word List	
<i>Hong Kong</i>	<i>genetic shift</i>
<i>SARS</i>	<i>travelers</i>
<i>respiratory</i>	<i>virulence</i>
<i>epidemic</i>	<i>quarantine</i>
<i>coronavirus</i>	<i>death rate</i>
<i>Center for Disease Control and Prevention</i>	<i>co-evolution</i>

Categories		
Problem	Setting	Causes
People	Solutions	Unknown Words

Then, students must use a certain number of the terms to create a “gist statement” that summarizes what they predict the reading will be about. In a final step, students note questions they have based on unfamiliar words or questions that arose as part of writing the gist statement in the “To Discover” section. This multi-step process helps students engage in several metacognitive strategies used by good readers: accessing prior knowledge, focusing on key vocabulary, forming visual pictures about what will be discussed in the text, and predicting what the text will be about. The specific steps for leading students through a Probable Passage are below:

- a. Choose 8 – 15 key words from the text students will read.
- b. Determine categories into which students should sort the words. When doing a Probable Passage prior to reading a short story in English class, the categories could be *Setting, Characters, Problem, Outcomes, and Unknown Words*.
- c. Tell students that the *Unknown Words* category is only for terms the group has no idea about – if they have a sense that a word should go in a certain category, they should place it there.
- d. Also, determine before hand if you want students to use all of the words in their gist statement, or only a certain portion. Assure them that if their gist statement doesn’t match the reading, or if they categorize words incorrectly, that is okay. The point is to make categorizations and predictions prior to reading, and then to use the reading process to check their thinking against the text.
- e. Remind students to complete the “To Discover” section at the end, noting specific questions that have arisen as a result of identifying unknown words or considering the gist statement.

⁹² Daniels, Harvey and Steven Zemelman. *Subjects Matter: Every Teacher’s Guide to Content-Area Reading*. Portsmouth, NH: Heinemann, 2004, p. 112.

⁹³ Ibid.

A sample completed Probable Passage is shown below. Consider how a teacher could glean information about students' current mastery of the vocabulary words in the text (given that they may have incorrectly categorized words) and misused vocabulary in the gist statement. Regardless of the accuracy of students' responses, they are activating their background knowledge and setting themselves up to compare their gist statement to the content of the text. Most adolescents will enjoy seeing if their predictions are accurate.

Probable Passage		
Problem <i>SARS epidemic</i> <i>death rate</i>	Setting <i>Hong Kong</i>	Causes <i>respiratory (?)</i>
People <i>Center for Disease Control and Prevention</i> <i>travelers</i>	Solutions <i>Quarantine</i> <i>genetic shift</i>	Unknown Words <i>co-evolution coronavirus</i> <i>virulence</i>

Gist statement: *In Hong Kong, there is an epidemic of SARS, which is causing a high death rate among people who live there and among travelers. The Center for Disease Control and Prevention is trying to quarantine people and give them a genetic shift to stop their respiratory problems.*

To Discover:

- 1. What is a coronavirus? Is that the type of virus that SARS is?*
- 2. What does co-evolution mean? Is that a good or a bad thing? Does it cause a genetic shift?*
- 3. What does virulence mean?*

5. Character Quotes. This pre-reading strategy pulls students into predicting the perspectives, personalities, and behavior of a character or characters they will soon meet in the reading. This strategy, which is usually not applicable to math and science instruction, can be used to introduce characters in fictional literature or to start discussions about historical figures.

- Preview the selection or unit to identify key pieces of information about a character or historical figure.
- Then, pinpoint and select quotations by or about the character that are interesting enough to generate discussion.
- Organize students into groups of three or four. Give each group a different quotation to consider. Each group must generate as many words as it can that might describe the character based on the person's quote.
- Finally, each group should predict what they might learn as they read more about this character or historical figure, recording its predictions and returning to them to evaluate accuracy while reading.

For example, in American History, you might start a lively and informative conversation with General John Stark's quote (and the New Hampshire state motto), "Live Free or Die," or Franklin D. Roosevelt's assertion that, "The test of our progress is not whether we add more to the abundance of those who have much, it is whether we provide enough for those who have little."

We've discussed five pre-reading strategies that will serve to actively engage students in a text before they even begin reading. Numerous pre-reading strategies exist, and you will surely add more to your

Pre-, During-, and Post-Reading Strategies

instructional repertoire over time. Regardless of the specific strategies you use, all secondary teachers should make time to help students activate their background knowledge, engage with the vocabulary words of the passage, predict what will be learned in the text, or otherwise get the mental juices flowing before even picking up the text. Without employing these strategies, any reading to learn in your classroom will prove less than successful.

III. Constructing Comprehension: During-Reading Strategies

During the reading process, students should be required to continually practice and apply the comprehension strategies that good readers employ almost subconsciously, such as making connections, monitoring understanding, stopping to summarize, asking questions, etc. While teacher modeling of a “think aloud” is a critical step to helping students “see” what happens in a good reader’s mind when reading, specific during-reading strategies provide a necessary structure for helping students to practice these strategies effectively. When students engage in these during-reading strategies, a teacher also gets a view into the thought processes of his or her students, as their “thinking” becomes visible on paper and in classroom discussion.

Here we have gathered four common methods of during-reading strategies that encourage active reading skills and help students make sense of a text. Of course, this list is by no means exhaustive, but rather is meant to give you some concrete examples of the types of exercises you might develop to build independent readers in your classroom. The five strategies are:

During-Reading Strategies	Math	Science	Language Arts	Social Studies
Coding text	x	x	x	x
Encouraging Student-to-Student Conversations (Say Something, Save the Last Word for Me)	x	x	x	x
Re-Reading (Reading from Different Perspectives)		x	x	x
Story mapping			x	x

1. Coding Text. Coding text involves teaching students a method of margin marking that helps them practice the metacognitive processes that happen naturally for independent readers. You might teach students to place a question mark next to an underlined statement they don’t understand, an exclamation point next to something that surprised them, and a double-headed arrow and brief statement next to something that prompts them to make a connection to something they already are familiar with. If the book belongs to the school, students can use small post-it notes to meet the same objective. You wouldn’t require students to use all of the margin marks in a particular text, but instead you should choose a few active reading skills and corresponding marks for students to employ during the reading, based on particular aspects of the text. The Coding Text strategy can be applied to all content areas and a variety of texts, and it is a highly effective during-reading strategy to help students engage in metacognitive comprehension strategies. A sample of codes are explained in the table below,⁹⁴ but really any can be used as long as they are appropriately symbolic and you teach them to your students.

✓	Confirms what you thought	*	Strikes you as very important
X	Contradicts what you thought	→	Is new or interesting to you
?	Puzzles you	R	Reminds you of something
??	Really confuses you	A	Answers a question you had

⁹⁴ Modified from Daniels, Harvey and Steven Zemelman. *Subjects Matter: Every Teacher’s Guide to Content-Area Reading*. Portsmouth, NH: Heinemann, 2004, p. 115.

2. Encouraging Student-to-Student Conversation. Classroom talk during or after reading traditionally involves teachers posing comprehension questions and students responding (or not responding) in a form of verbal ping-pong, which does little to build comprehension. Instead, students need to be encouraged to talk with their peers about the reading *while* they are reading, and they need to be taught a structure for doing so. Because students need all the practice they can get applying comprehension skills, their conversations shouldn't simply focus on plot development, sequence of events, or key concepts, but instead on predicting what will happen next, asking questions, making connections, etc. The following strategies will help students construct meaning with their peers while reading by using comprehension strategies in a discussion.

Say Something. This strategy builds in frequent but brief student-to-student conversations while reading. Per your directions, students stop after every stanza, paragraph, section, or set number of pages to engage in structured dialogue about what they are reading, to clear up any confusion before moving on, and to break the habit of reading without stopping to think. When implementing this strategy, students can work in pairs or small groups; either one person reads each section aloud, then "says something" to the group that others then respond to, or all students can read silently and a designated person must start the Say Something process. Kylene Beers recommends creating specific "rules" for participating in Say Something (rules which you should model, explain, and allow students to practice). Beers displays the following poster in her room:⁹⁵

Rules for Say Something

1. With your partner, decide who will say something first.
2. When you say something, do one or more of the following:
 - a. Make a prediction
 - b. Ask a question
 - c. Clarify something you misunderstood
 - d. Make a comment
 - e. Make a connection
3. If you can't do one of these five things, then you need to reread.
4. Your partner should comment on what you have shared, by doing one of the following:
 - a. Agreeing/disagreeing with your prediction
 - b. Answering your question or asking a follow-up question
 - c. Making an additional comment or connection

To further structure this process, some teachers provide "stem starters" for Say Something comments. For example, students could refer to a list of Make a Connection stem starters, such as "This character makes me think of..." or "This reminds me of..." to help them get started in their statements. A list of stem starters can be found in the **Secondary Literacy Toolkit** (p. 14); this Toolkit can be found online at the Resource Exchange on TFANet. ✖

Save the Last Word for Me. This discussion technique "helps students see how the meaning of any piece of reading is recreated by the reader, and not just funneled into her head from off the page."⁹⁶ While reading, students select three to four key statements or passages from the text that are particularly interesting or meaningful to them. They write these statements directly

⁹⁵ Modified from Beers, Kylene. *When Kids Can't Read: What Teachers Can Do*. Portsmouth, NH: Heinemann, 2003, p. 107.

⁹⁶ Daniels, Harvey and Steven Zemelman. *Subjects Matter: Every Teacher's Guide to Content-Area Reading*. Portsmouth, NH: Heinemann, 2004, p. 133.

Pre-, During-, and Post-Reading Strategies

from the text on one side of their note cards, and then their reactions (a connection to something in their own life, a statement about why they think the passage is important, a summary, etc.) on the other side of the cards. In groups, a student reads one of his direct quotations to his peers, and other students in the group must respond to it first. “The author of the card gets the last word by reading his own reaction from the back of his card—or stating a fresh view, if hearing the others has altered his interpretation...instead of being drawn into a defensive debate, each card-reader gets the face-saving protection adolescents often need, as he listens and decides for himself whether to stick with his interpretation or, free of others’ criticism and judgment, to revise it.”⁹⁷

Of course, student-to-student conversation can be as simple as, “turn to the person next to you and explain what you just learned/read/saw in your own words.”

3. Re-Reading. Consider the following dialogue between Kylene Beers and one of her students:

Me: What’s wrong, Ben?

Ben: I didn’t get the story.

Me: Did you reread the parts you didn’t get?

Ben: Why?

Me: To help you understand them.

Ben: Why would reading the same stuff again help me get it?⁹⁸

Ben illustrates the viewpoint of many struggling readers: “Why would reading the same stuff again help me get it?” However, independent readers often stop to reread sentences and passages that don’t initially make sense. When we reread, we move at a slower pace, reflect on what we have read, and in our effort to make meaning of the text, flip back a page or two to see where else that vocabulary word was mentioned. Struggling readers first need their misconceptions about the value of re-reading broken down—a great opportunity to reinforce the value that “hard work leads to success” as discussed in *Classroom Management & Culture*. Struggling readers also need structured opportunities to reread (as opposed to just giving them the vague instruction to “reread it”) in order to continually build comprehension in the during-reading phase.

To help students see the value of re-reading, you might assign them a short passage and ask them to read it three times. After each reading, ask them to rate their level of understanding of the text on a scale of one to ten. Afterwards, debrief with students, asking them to share their comprehension levels and why they think they increased from the first to the third reading. Most likely, students will share statements such as, “the second time I already had a general idea of what the passage was about, so I could pay more attention to the details” or, “I knew what the hard words were, so by the second or third time I could focus on using the context clues to figure out what the words meant.” You might also relate the re-reading process to the re-listening or re-watching process that students constantly—and eagerly—engage in with music and movies. Adolescents will easily articulate why they listen to songs repeatedly: with each new hearing they discern more of the words, master more of the melody, and are able to focus more on the emotions the lyrics produce. Similarly with movies: adolescents don’t avoid re-watching movies or music videos because they already know the ending. They re-watch them to catch more details each time around and because they enjoy anticipating what is going to happen next.

⁹⁷ Ibid.

⁹⁸ Beers, Kylene. *When Kids Can’t Read: What Teachers Can Do*. Portsmouth, NH: Heinemann, 2003, p. 110.

Showing students why re-reading is important is only half the battle. You also have to give them guidance on *how* they should reread. Consider the following directions:

Teacher: Alright guys, let's look at the beginning of Chapter 5; that's what you're going to read tonight. [The students are reading a novel called *Stick and Whittle* by Sid White.] Before you get into your literature circles to discuss what you read last night, I want us to talk a moment about something I want you to do tonight as you read this chapter. Okay, this chapter is only eight pages so I want you to read it three times tonight. When you get to the end of it the first time, I want you to stop and jot down any questions you have, predictions you have, or responses you have. Then read that same chapter. This time, I want you paying specific attention to information about Stick. What do you know about him at the end of that chapter that you didn't know before? Finally, I want you to read the chapter one more time, this time focusing on finding out about Whittle. After each reading, jot down notes about what you learned about those two characters.⁹⁹

Students might ask why they can't do all three things in one read through, or scoff that it seems like you want them to memorize the passage. Reiterate that you want them to shift their attention to something different with each re-reading, and that doing so will result in a more rich understanding of the text.

Another re-reading strategy, called **Reading from Different Perspectives**, applies to a variety of different subject areas, especially language arts, social studies, and science. When using this technique, students must engage with the text thoroughly, so that they can view the events in the text from more than one perspective. One formulation of the directions for this approach is as follows:

- a. Have students read through the story, article, or selection for the first time.
- b. Identify a number of perspectives that could be connected to important ideas or concepts of the passage. (With narrative text, assign students a particular character or the narrator.)
- c. Divide the class into groups of three or four students and assign each group a different perspective. (For instance, someone teaching this *Secondary Literacy* text could have people read sections from the perspectives of a student, a new corps member, a veteran teacher, a principal, etc.)
- d. Have each group read the passage again, this time looking for statements that reflect the needs and concerns of their assigned character or perspective. Have each group list the concerns that someone with their perspective might have about the topic, as well as the needs a person of that perspective might have.
- e. Then, have them record how they would react to each statement from the text—in character, as if they were actually there.
- f. Finally, students create a one or two-sentence summary statement that conveys their perspective.

For an example of such an organizer, see the **Secondary Literacy Toolkit** (p. 15: "Different Perspectives Graphic Outline"); this Toolkit can be found online at the Resource Exchange on TFANet. ✖

In addition to helping students add additional layers to their comprehension each time they re-read the passage, remember that repeated readings of a text will build fluency, a key skill to concentrate on with our struggling readers.

⁹⁹ Ibid p. 111.

Pre-, During-, and Post-Reading Strategies

4. Story Mapping. A Story Map is essentially a graphic organizer that helps students note and track the essential elements in a narrative while reading. In its traditional form, the Story Mapping approach is most applicable to an English class where students are learning about the basic elements of a story's format (Setting, Characters, Mood, Events, Resolution, and Theme). However, content area teachers could modify the "story map" format in a variety of ways. In a math class, an Equation Map might require students to note the steps to solving an equation (with spaces for each step required to determine the solution and a box for the mathematical processes used); in social studies an Event Map could track the sequence of events, major characters, and ultimate resolution of an event in history; biology students could fill out a Process Map that charts the steps involved in transcribing DNA and noting the organelles involved. As you may have gathered, all of these "maps" are simply graphic organizers that help students actively process a sequence of events or actions described in either narrative or expository text, something that struggling readers would tend to gloss over. For an example of a completed story map, see the **Secondary Literacy Toolkit** (p. 16: "Sample Story Map"); this Toolkit can be found online at the Resource Exchange on TFANet. ✕

In summary, while there are multiple during-reading strategies—many more than mentioned here—all serve to give students continued and structured practice in applying the comprehension strategies that good readers employ and are necessary for true comprehension. In the next and final section of this chapter, we'll discuss ways to help students practice applying comprehension strategies even after the reading has been done.

IV. Extending Comprehension: Post-Reading Strategies

As you realize, and as you will need to explicitly teach your students, the process of actively engaging with a text does not end once you have completed the reading. To truly foster the active reading and writing skills that will carry your students to academic achievement in all content areas, you must guide students as they process the information they have read and help them to systematically exercise their ability to clarify, connect, summarize, and evaluate. The stage of the reading process *after* students have read is ripe with opportunities to build students' metacognitive muscles in these areas. Here we will describe three examples of specific post-reading strategies that teachers have found effective in continuing to build and extend students' thinking about and comprehension of a text:

Post-Reading Strategies	Math	Science	Language Arts	Social Studies
Scales		x	x	x
Very Important Points	x	x	x	x
Somebody-Wanted-But-So			x	x

1. Scales are essentially the post-reading form of the Anticipation Guide discussed in the pre-reading section; scales also provide students with opportunities to articulate an opinion based on the themes, events, or concepts of a text. Once again, the best statements are those that aren't clearly true or false, but are somewhat debatable. A few statements will suffice – certainly fewer than 10, and 3-5 are probably sufficient. The purpose is to help students reflect on a text and engage in discussion with their peers afterwards. A sample scale for *The Watsons Go to Birmingham—1963* is on the following page:¹⁰⁰

¹⁰⁰ Ibid p. 140.

The Watsons Go to Birmingham—1963

Determine how much you agree or disagree with each statement and mark that point on the continuum with an X. You will be asked to defend your statements in a group discussion, so think carefully!

1. Kenny and his family should not have gone to Birmingham, Alabama when they did.

Strongly disagree *Disagree* *Agree* *Strongly agree*

2. You can do some bad things and still be a good person. Consider Byron as you answer this.

Strongly disagree *Disagree* *Agree* *Strongly agree*

3. Throughout the book, Kenny calls his family The Weird Watsons. This was an accurate description of his family.

Strongly disagree *Disagree* *Agree* *Strongly agree*

4. After the bomb goes off at the church and kills two little girls, Byron tells Kenny, "How's it fair that even though the cops down there might know who did it nothing will probably ever happen to those men? It ain't. But you just gotta understand that that's the way it is and keep on stepping'." Byron's advice to Kenny to accept what happens and just get on with life is good advice.

Strongly disagree *Disagree* *Agree* *Strongly agree*

2. Very Important Points (VIPs). This exercise holds students accountable for picking out the key concepts in a passage by having students share their notes on the ideas after the class has read a text. This strategy is similar to the Save the Last Word for Me activity discussed above. Among the many ways to implement this strategy is the following approach:

- As students read, they write questions on sticky-notes about what they have read. In addition, encourage students to mark the three most important points of the text.
- Then, as a post-reading activity, put students into groups of three or four and have them discuss the answers to their questions or why they chose to mark a point as very important. It is critical to have students justify what they have answered or marked as important.

3. Somebody-Wanted-But-So. Struggling readers often find it quite challenging to summarize a text, as they tend to either have very little to say (not being able to sort through all the events and characters) or they relate too many unimportant details in the text (as they can't discern the most important). The Somebody-Wanted-But-So strategy gives students a structured forum for summarizing the key events of a text. Students must decide who goes in the *Somebody* column (thereby determining the major characters in a text), *What* they wanted, *But* what happened that kept them from getting what they wanted (again, forcing them to focus on certain details) and, *So*, the eventual outcome of that particular conflict. When students are finished, they have created a short summary of the text. (Note that if the text is long, they may end up having several SWBS rows filled in, that will be connected with transition words such as *then*, *and*, etc.)

You can introduce the SWBS charting strategy using a simple poem or short story, such as "Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out" by Shel Silverstein.¹⁰¹ You would explain the chart, read the poem, and then model the process to create the following:

¹⁰¹ Ibid p. 149.

Pre-, During-, and Post-Reading Strategies

Somebody <i>Sarah Cynthia Sylvia Stout</i>	Wanted <i>Wanted to avoid taking the garbage out</i>	But <i>But the garbage piled up to the ceiling, out the door, and up to the sky</i>	So <i>So her neighbors moved away, and no friends would come to play</i>
THEN			
Somebody <i>Sarah Cynthia Sylvia Stout</i>	Wanted <i>Wanted to take the garbage out</i>	But <i>But by then it was too late</i>	So <i>So Sarah met an "awful fate"</i>

The headings for a SWBS chart are best suited to narrative texts, but you could use different headings, such as *Something Happens...Then This Occurs* to help students summarize the chain of events in a scientific process, or *Something Happened...Then This Occurred* to help students summarize cause and effect relationships that are common in social studies classes.

Conclusion and Key Concepts

This chapter surveyed a wide variety of strategies that can be used at different points on the reading/time continuum to help students practice various comprehension skills with structure and support.

- Two overarching strategies to prepare your students to comprehend a text include teaching text structures, such as chapter titles, section headings, figures, and their purposes, and text patterns, such as Generalization/Principle, Comparison/Contrast, Description, etc. Teaching both through explicit instruction and graphic organizers will give your students a familiarity with the common road signs that good readers use to navigate a text.
- Pre-reading strategies, such as KWL Charts, List-Group-Label, Anticipation Guides, Probable Passage, and Character Quotes, stimulate students' prior knowledge about a topic and involve students in the themes, concepts, or vocabulary of a text before they even open the book. Pre-reading strategies prepare students to ask questions, make connections, form predictions, and categorize new information in the during-reading stage.
- During-reading strategies, such as Coding Text, Encouraging Student-to-Student Conversations, Re-Reading, and Story Mapping, are all examples of ways you can help students practice the comprehension strategies that good readers employ while reading. Such during-reading strategies give students a structure for continual, active engagement with a text and force them to grapple with comprehension while they are reading, as opposed to simply moving their eyes down the page.
- Post-reading strategies, such as Scales, Very Important Points, and Somebody-Wanted-But-So, drive home the fact that the process of actively engaging with a text does not end once students have completed the reading. Struggling readers especially will need to be given opportunities to continue to flex their metacognitive muscles by debating themes in the text and summarizing the key points after they have done the reading.