Secondary Literacy Instruction: Bringing It All Together

Conclusion

I. A Window Into Some Secondary Classrooms

II. General Principles for Secondary Literacy Instruction

All that is covered in this text, from building older students' fluency and vocabulary knowledge to helping students become independent readers of your content area texts, culminates in a real classroom with real students. In order to infuse your own secondary classroom with appropriate literacy instruction, you will need to synthesize what you have read in this text, what you will learn in your institute sessions this summer, and what you will continue to learn as part of your ongoing professional development in your region. Unlike the balanced literacy block found in elementary classrooms, there is no recommended schedule or "recipe" for how to effectively build the reading and writing skills of your secondary students in a fifty minute period while also, of course, teaching the learning goals of your subject matter. As you have gathered from previous chapters and will discover as you delve into the professional literature on the topic, there are numerous ways to integrate reading and writing skills into a content area classroom. The strategies you will choose will depend on a variety of factors, including the subject matter, the day's objective, and your students' reading and writing abilities and weaknesses.

However, in order to give you a clearer picture of what effective literacy instruction might look like at the secondary level, we will peer into secondary English, math, social studies, and science classrooms. These vignettes should provide a vision of the end-goal of this text: **secondary classrooms where content area instruction is intertwined with explicit instruction in reading and writing skills, and where students' literacy skills are consequently improving along with their mastery of the content area.** We will close with some general principles to keep in mind as you consider how to best meet the literacy needs of your students.

I. A Window Into Some Secondary Classrooms

Let's look at a few detailed snapshots of what reading and writing instruction looks like at the secondary level in both English/language arts and other content area classrooms. The various strategies used by our example teachers are all ones that were introduced in earlier chapters.

11th Grade Chemistry

At the beginning of the year Leslie gave her students a "reading inventory," which asked a series of questions about students' reading habits, such as whether or not they agreed with the statement, "reading is thinking," or whether or not they ever "heard" a voice in their head saying, "wait, I'm confused…let me go back and read that" as they read. As a result of this survey and conversations with her students' English teacher, Leslie knows that the vast majority of her students do not apply adequate reading comprehension strategies as they read. Instead of actively engaging with the text by asking questions, making connections to things they are familiar with in real life, and visualizing what is happening in the text, Leslie's students think that reading is simply moving their eyes across the page and being able to pronounce each word.

Leslie realized she might need to shift her students' understanding of what it means to read.

To build her student's active reading skills, when Leslie introduces a major new concept in chemistry such as the scientific method, atomic theory, and chemical reactions, she also introduces a new reading comprehension strategy. Each time, she follows a similar instructional pattern: she explains the comprehension strategy, she models how she applies the strategy using a "think aloud," and she prompts students to practice with the strategy on several reading passages throughout the unit (and encourages them to continue to apply the comprehension strategies they have already learned).

Leslie explicitly teaches her students comprehension strategies, and gives them opportunities to practice using them.

Today, Leslie's primary objective is for students to be able to describe the difference between a physical and chemical change. Her secondary, literacy-based objective is that students will be able to apply the "making connections" comprehension strategy to their reading. In addition to reading the introductory passage to the chapter on physical and chemical changes, Leslie has found two other applicable articles. One brief column, from the Home Section of the *Washington Post*, describes precautions homeowners should take to prevent their pipes from freezing (as water going from the liquid to solid form is a physical change). A selected passage from a *Time Magazine* article describes the process of refinishing the Statue of Liberty after years of corrosion at her copper and iron joints (an example of chemical change). Both articles are fairly high-interest yet low-level, meaning they have simple vocabulary and sentence structure. Leslie follows her pattern of explaining the idea that good readers make connections when they read and modeling the connections she makes to the text, to her life, and to other scientific principles while reading the *Washington Post* article out loud. As a class, they read the *Time Magazine* excerpt, and Leslie notes the connections students make in that text on her overhead version of the passage. Then, students read the opening sections in the chapter on physical and chemical change. They read it through once, jotting the connections they make to what they just read and the physical and chemical changes they see in everyday life on small sticky notes, and affixing them to the appropriate spots on the page. Then, with a deeper understanding of the text and a familiarity with the vocabulary words, students read it through again, completing a Venn diagram that compares and contrasts chemical and physical changes. At the end of the lesson, students write a short statement that summarizes the difference between a physical and chemical change on an "exit ticket."

Leslie uses a variety of texts, not just the textbook, to teach the concepts of her content area.

Leslie models her use of comprehension strategies through a "think aloud."

Students write informally to process what they have learned.

7th Grade English

Felicia's 7th grade students, who are primarily English Language Learners, will soon begin reading the novel *The Giver*, by Lois Lowry. To prepare them to identify the book's major themes of utopia and conformity (one of the state standards is that students will be able to identify the themes in various literature), Felicia plans two vocabulary development lessons on the concept of utopia and conformity for Monday and Tuesday. On Wednesday and Thursday, students will read short stories with those themes in them (such as "The Fireman" by Ray Bradbury) and apply, as they always do, the "seven habits of highly effective readers" while they read (the

Felicia knows vocabulary knowledge is key to comprehension.

seven habits include making connections, predicting, asking and answering questions, summarizing, visualizing, making inferences, and monitoring one's comprehension).

Students have opportunities to practice using comprehension strategies.

The objective for Tuesday's lesson is for students to be able to describe the concept of conformity, identify examples of conformity in everyday life, and create their own questions about the role of conformity in society. Felicia opens the lesson by reading a few short, real-life scenarios about conformity that students can relate to: wearing uniforms to school, deciding whether to sneak out of the house to meet up with a group of friends, being a new student in Felicia's classroom and observing others to see how they behave. Felicia then guides students through the creation of a concept map for the word "conformity." This graphic organizer has several sections; students must list the word, the definition, an example sentence, synonyms, examples, non-examples, and essential characteristics. Felicia believes a thorough understanding of conformity is critical to students' comprehension of *The Giver* and accurate identification of the book's theme, and knows that her instruction must do more than quickly provide the definition.

Felicia teaches common syllables to help students break down multisyllabic words.

Our word today is conformity. Everyone repeat the word so you get the correct pronunciation. That's right, it has the syllables /con/ /for/ /mi/ /ty/. Good. Look at our "common syllables" chart – some of the syllables in conformity are on that chart. Let's write the word at the top of our graphic organizer. Conformity *is the noun form. Let me use the noun form in a few sentences. I see* conformity *in your uniforms. You acted in* conformity *with your beliefs when you told the person not to use that word. The verb form is* to conform*. Listen to a few sentences in which* conform *is used as a verb, something that people do. In the scenario, Karen* conforms *to the behavior we exhibit in our classroom. A lot of you thought Steven shouldn't have* conformed *to his peers by sneaking out of the house. Given my example sentences, what would be a good definition for the word?*

Students are interacting with the vocabulary on a deep, meaningful level.

Felicia lets students grapple with the definition but ultimately provides students with a definition in clear, student-friendly language. Felicia continues to fill in a concept map on the overhead while students complete their own copy. They slowly move through each section, engaging in rich discussion about the concept and providing students with a deep grasp of its meaning: they begin to see that conformity occurs in necessary ways, in harmful ways, in ways both small ways and on a societal level.

Interesting, Abel. Why do you think one essential characteristic of conformity involves other people? So you're saying if it's just you *doing something, you're not conforming to anyone else. Who agrees and can provide an example of how conformity involves a group of people that are all doing the same thing? And how does that connect to utopia, which we discussed yesterday? Right…Now, what are some examples of conformity in our every day life? Ok, jobs. Tell me more, Nicole. Is just having a job conforming? Ahhh, you conform in a job by behaving in a certain way at the office, wearing certain clothes, meeting deadlines. That's right.*

Once students have completed the concept map, Felicia leads a class discussion to further students' understanding of conformity and activate their opinions on the matter with prompts such as, "Do people conform because they want to, or do they conform out of fear because they are afraid of being different?" and "Do you need conformity for utopia to work?" By the end of the class period, Felicia's students have met the objective and she is convinced they are ready to read and identify the themes of conformity in "The Fireman" tomorrow, and in *The Giver* when they begin the novel.

9th Grade U.S. History

Carl's students are significantly below grade level in reading, and they particularly struggle with fluency, phrasing, and comprehension. To help his students better comprehend the U.S. history textbook and supplementary readings, Carl has taught his students to use graphic organizers to chart the "text patterns" that are common to writing in the social sciences and regularly found in the course's text. Those text patterns include describing an episode, comparing and contrasting, cause and effect, and sequences of events. Carl began the school year with several lessons that gradually taught his students to identify various text patterns by noting "signal words" (for example, the words *although*, *similarly*, *yet*, and *compared with* are often sprinkled throughout a passage that is comparing and contrasting two historical figures or events) and then organizing the ideas and information in the passage into a graphic organizer (for example, a Venn Diagram could be used for comparison-contrast passages). Carl has found that consistent bundling of reading a passage, noting signal words, determining text patterns, and recording the information in an appropriate graphic organizer greatly increased his students' comprehension of the material.

By teaching text structures and signal words, Carl is equipping his students to navigate the texts of his content area.

To build his students' fluency, Carl models fluent, expressive reading through a read aloud.

Today, Carl's objective is for students to be able to describe the key elements of Pickett's charge, a brutal battle that many regard as a turning point in the Civil War. While students follow along in their textbook by sweeping their pencil under the phrases as Carl reads them (a practice that highlights for students the speed and phrasing that good readers use), Carl dramatically reads the three pages in the textbook that describe the battle. Afterwards, he asks students to determine signal words that would point to a particular text pattern. Students quickly assert that the passage describes an episode, and point out the sequence of events, cause and effect, and key descriptive elements. Looking at the various models of graphic organizers Carl has enlarged on the wall, most students vote to use the "Episode" graphic organizer to record the key elements of the battle. Students then read the passage again, this time alternating reading out loud with a partner. They work together to fill in their "Episode" graphic organizer when they come across certain key facts, noting the time, place, and duration of the battle, the key people involved, and the causes and effects of the battle. Students share their responses as Carl fills in a class organizer for students to compare to their own. Then, students are asked to write a "mini summary" of the battle that integrates all of the key elements they have identified.

This informal writing activity allows students to practice the skill of summarization.

8th Grade Geometry

Jonathan strives to integrate writing into his math classroom on an almost daily basis. Each day, his students respond in writing to a prompt in their math journal as part of the warm-up. Each prompt relates to what students learned the day before. For example, "Determine the shapes that would come next in the following sequences. Write a one-sentence explanation of the geometric pattern and your answer," or "Write a word problem that would require the person solving it to use the equation for the area of a circle. Then, solve the problem yourself, and explain your process for doing so." Jonathan has found that writing about math helps students organize, clarify, and reflect on their understanding of mathematical processes. When he reviews their math journals on a weekly basis, he gets a better sense of what his students understand and still find challenging.

Jonathan uses informal writing to extend and assess comprehension.

Today, as part of their unit on polygons, the objective is for students to be able to determine if two polygons are "similar." The journal prompt today asks, "1. What does the word *similar* mean? 2. Please list three synonyms and three antonyms for the word *similar*. 3. Draw pictures of two things that you would describe as similar – either things that you would encounter in math class or in every day life." After the timer goes off for the warm-up, students read their responses:

Similar means that things are the same…Similar things are like each other, but don't have to be identical…Some synonyms are alike, the same, matching, related*…Some antonyms are* dissimilar, different, opposite, unequal*. The two similar things I drew were a polka dotted shirt and a striped shirt, which are similar because they are both shirts, but not identical because they have different patterns…I drew my fluffy cat and my short-haired cat…I drew a plus sign and a multiplication sign, because multiplication is a quick way to do addition, so they are related…I drew a square and a rectangle…I drew two squares that are slightly different sizes.*

As Jonathan hoped, the examples provides a perfect segue into the lesson. He begins by explaining that the word *similar* has a specialized meaning in math that is different from the meaning of *similar* in "ordinary" English. He draws a large t-chart on the board and writes "Similar in ordinary English" at the top of the left column. Under that, he jots down most of what students reported drawing in their journals. On the other side of the t-chart, he writes "Similar in Math." In that column, he draws similar squares, triangles, and other polygons. He steps back and asks students to make observations about the similar polygon pairs in the "Similar in Math" column.

One looks just like a bigger or smaller version of the other…It looks like all the angles are the same in those two triangles you drew…

Jonathan is building up to a student-friendly definition of the term *similar*.

Using student observations, Jonathan and his students create the criteria for whether or not two shapes are similar in math. On the overhead, he guides students through determining if various shapes meet those criteria and are therefore truly similar polygons. Finally, he gives students rulers and protractors to determine if various shapes on a handout are similar as part of their independent practice. In the last five

Adding the word to the word wall, and referencing it in the future, will allow students multiple exposures to the word.

minutes of the period, students return to their math journals and write their own "math-version" of the word similar, with a corresponding, annotated picture of two similar polygons. Later that afternoon, Jonathan adds *similar* to his math word wall, with an illustration of two similar triangles beside the term.

II. General Principles for Secondary Literacy Instruction

Clearly, there are numerous ways to integrate reading and writing skills into a content area classroom that depend on the subject matter, the day's objective, and your students' reading and writing abilities and weaknesses. But what are some general principles to keep in mind as you determine how to most effectively interweave specific reading and writing instruction with specific content area instruction?

1. **Recognize the importance of explicit literacy instruction at the secondary level.** The first principle involves more of a mind shift, as opposed to a specific action. Given how far behind our students are, we cannot afford to avoid explicit instruction in vocabulary knowledge, reading comprehension strategies, or the writing process. Students will not learn those skills by osmosis; they must be explained, modeled, and practiced. More importantly, if students don't build their word recognition, fluency, vocabulary, and comprehension skills, their ability to understand the texts of your content area will be severely hampered.

> *Not only did I think I would not have to teach literacy skills to my seventh and eighth grade science students, but I avoided teaching those skills in my first semester. I avoided the science textbook and used demonstrations, labs, and short lectures to help students master the science content. However, when it came time for students to display their knowledge on a mock-standardized test, they fell dramatically short of where their performance in my class had been. Why? I hadn't taught my students how to read scientific information and process it independently. It became obvious that literacy was the key lever in allowing my students to showcase their knowledge and potential.*
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> **Aaron Pomis, North Carolina '02**
> **Founding Science Teacher, KIPP Charlotte**

2. **Show your students how good readers read.** You'll recall that almost all struggling readers at the secondary level have a fundamental misconception of what it means to read. Most of these students, when asked, would report that reading is simply being able to pronounce all the words on the page, or the ability to get through a whole bunch of words to reach the end of a book. You must explicitly teach your students that their view is a far cry from reality. This important aspect of reading can be approached, as shared in chapter three, through "thinking aloud" about the metacognitive strategies you employ while reading. Students must hear what goes on in a good reader's mind. From the beginning of the year, you should tell students your goal of helping them become better readers of your course's texts, explain the various metacognitive strategies that good readers use, model those strategies through "think alouds" while reading sections of your content area texts, and give students opportunities to practice those strategies as they read the texts of your content area.

3. **Give students structured opportunities to apply comprehension strategies.** In chapter four we shared specific methods for helping students apply comprehension strategies before, during, and after reading. Some of those methods include constructing a Probable Passage to help students predict what a text will be about before they even begin reading, teaching students to "code" a text with symbols that chart their metacognition as they read, or summarizing and reflecting on the key points of a passage through identifying the "very important points." While you probably wouldn't use a pre-, during- *and* post-reading strategy every time you read a text, you should employ at least one strategy each time your students engage with a text, at least until students start to use these

processes automatically and you see a dramatic increase in their reading comprehension. Also, remember that good readers use text structures, such as section headings, bolded vocabulary words, and captions, to support their comprehension. At the beginning of the year, teach these "sign posts" to your students so they too can leverage them for deeper understanding. Helping students to be on the look out for signal words and their corresponding text patterns (chronological sequence, episode, cause/effect) will allow students to navigate a text and apply those same patterns to their writing.

4. **Build students' knowledge of content area vocabulary.** You can almost assume that your students will need significant instruction in the "tier three" vocabulary of your content area. All secondary teachers should look for opportunities to explicitly teach key content area terms and the academic language of their course. Remember the three principles of effective vocabulary instruction: 1. Carefully choose a limited number of words and provide a direct, student-friendly explanation of their meanings, 2. Create meaningful interactions with the words in a variety of formats and contexts, and 3. Ensure the students have multiple exposures to the new words. Explicit vocabulary instruction should occur on a daily basis. You might need to provide more time-intensive instruction, such as deep exploration of a word's meaning as exemplified in Felicia's vignette above, or you could merely work in exposure to words you have already introduced through integration in your own speech or reference to the word on the word wall. Regardless of how you do so, seize every opportunity to build your students' vocabulary.

5. **Address weak word recognition or fluency when necessary.** Chapter two of this text shared strategies for building students' word recognition and increasing the fluency with which students read texts. Remember that most of our students who struggle with word recognition need help breaking down multisyllabic words and recognizing the words of the content area with automaticity. Although you could do a more formal diagnostic to determine if your students have weak word recognition and/or fluency skills, you can quickly ascertain if this is a problem area for your students simply by listening to them to read aloud. If a student frequently stumbles over words as she reads, or reads haltingly and without expression, you may need to work with that student individually. That might involve teaching them word parts so they can "chunk" large words, giving them their own personal word wall to build automatic recognition of words, or providing them with texts on their instructional level. If many of your students struggle in this same way, this instruction can intermingle with your content area instruction, as Carl did above with repeated readings of his texts and Felicia accomplished through reference to a common syllable chart.

6. **Establish a classroom environment with a wide range of texts.** We have alluded to this final principle at various points when talking about providing students with texts on their instructional and independent level. Students should be reading material in genres besides "the textbook" in order to build their knowledge of the content area, and those materials should be at varying levels of difficulty. You will need to remain an avid reader of the texts in your content area so you can identify newspaper articles, editorials, magazines, primary sources, biographies, historical fiction, non-fiction books, novels, plays, and poetry that will meet your students' needs. For your reference, several middle school and high school book lists, with texts in a variety of genres and at a variety of levels, are included in the **Secondary Literacy Toolkit** (pp. 22-43); this Toolkit can be found online at the Resource Exchange on TFANet. 🛠 Also, if we are "constantly scouring newspapers, magazines and

My textbook is on average at about a tenth grade reading level, while my students are on average at a fourth grade reading level. I use the textbook as the backbone of information and I use supplemental texts constantly.

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> websites for relevant pieces for our kids, realizing that every school subject gets 'covered' in the popular press…we can feed class discussions with articles about air pollution in the community, the role of serotonin in brain function, the latest genetic engineering breakthrough, racial quotas in police department hiring, or a controversial art exhibit."[106] As Leslie demonstrated above, the shorter articles found in the popular press are often of perfect length to model comprehension strategies and provide students opportunities to practice. In addition, they are often higher-interest and lower-level than your textbook, allowing you to draw more reluctant readers in and provide students with reading material they can engage with.

As articulated in the introduction to this text, one of our greatest opportunities to alter our students' life prospects comes through teaching our students to read, write, and communicate effectively. Although literacy instruction may seem like an additional burden, the learning goals of your content area are a fantastic vehicle for helping your students become better thinkers, readers, writers, and communicators. We leave you with a statement from Alan Giuliani (Mississippi Delta '94), an alumnus who teaches high school math in Mississippi and concurs with this point:

> My mission for my classroom is actually based on literacy: "We will communicate at high levels about challenging mathematics." That is because, to me, math is largely about communication, not just about getting the right answer. As I tell students, when they find the cure for cancer or finalize research that could win them the Nobel Prize, it will not be enough to just know the answer. They must communicate it effectively to others. Thus, this class is great practice for communicating difficult concepts. "Oh, yes—this is an English class," I remind them.

[106] Daniels, Harvey and Steven Zemelman. *Subjects Matter: Every Teacher's Guide to Content-Area Reading*. Portsmouth, NH: Heinemann, 2004, p. 60.