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Introduction

Today, secondary teachers face many challenges. They feel overwhelmed by the number of students they teach, the range of abilities in their classes, the pressure of high-stakes assessments, and No Child Left Behind (NCLB) requirements. There are also constraints of time and space that impact teaching in secondary schools. Students move through the day, often in short blocks of time, to classrooms that are set up for specific purposes: lab tables in science or individual seats facing the chalkboards in math (Moje, 2006). All of these constraints make it difficult for secondary teachers to feel that they have the expertise or the time to teach their content knowledge *and* literacy.

In addition, many secondary teachers have had workshop sessions on topics such as “Writing Across the Curriculum” and “Every Teacher a Teacher of Reading” where they developed the distinct notion that they were expected to become teachers of reading and writing. Most secondary teachers have not been formally trained to be teachers of reading and writing; they were taught to be content-specific experts. They have been expected to focus only on their particular content and to impart that knowledge to their students. For many secondary teachers, literacy competencies are skills they expect students to have in place prior to coming to secondary school. From this viewpoint, students were to have learned how to read in elementary school, so a focus on reading in secondary content classrooms should be unnecessary. Thus, over the years, many secondary teachers have not embraced the idea of bringing literacy instruction into their content area (Moje, 2006).

We understand the difficulties faced by secondary teachers today and hope this book will provide some direction for the increasingly important role they play in developing adolescent literacy. We take the stance that it is important to develop students as *learners* rather than just as readers or writers. It is the content teacher's focus to help students learn the ways of knowing, doing, and communicating in that content area (Moje, 2006) while also teaching specific content.

In the book *The World Is Flat*, Friedman (2006) refers to two ideas that are important in the development of adolescents and relate directly to our learning stance. The first is that students must learn to work hard and accept the realities of needing to work hard in order to succeed. Second, Friedman believes that the best teachers and schools teach students how to learn and to continue learning throughout life. This means that secondary schools must focus on literacy as a learning tool that will help students develop their ability to be creative and innovative thinkers. Teachers and students must see literacy as a catalyst for learning how to learn new and different concepts—important in a fast-changing world.

The state of adolescent literacy is seen as in crisis today (Graham & Perin, 2007; Heller & Greenleaf, 2007; National Association of State Boards of Education [NASBE], 2006). According to international assessments (Organization for Economic Co-operation and Development [OECD], 2003), fifteen-year-olds in the United States rank fifteenth in the world and are below the international average for engagement in reading and school. Data from the National Assessment of Educational Progress (NAEP) show that one-third of the country's secondary students are proficient in reading, while only 3% of eighth graders and 5% of twelfth graders read at an advanced level. There has been little progress toward improving achievement at the secondary level on this assessment to match the growth seen in fourth-grade results (Perie, Grigg, & Donahue, 2005). While most adolescents do have basic reading skills and strategies in place and can answer basic comprehension questions, few have developed the more advanced ability to interpret, synthesize, and critique expository texts (Balfanz, McPartland, & Shaw, 2002; Moje, 2006).

Writing proficiency is also seen as in crisis in national reports (Graham & Perin, 2007). According to the 2002 NAEP results, gains were made in eighth-grade writing between 1998 and 2002, with 15% below basic and 31% proficient or advanced. The performance of twelfth graders was mixed. In 2002, 26% of twelfth graders were below basic, an increase of those below the standard. However, 24% were proficient or advanced in 2002, a gain of 2% from 1998. While most adolescents can complete basic writing with acceptable form, content, and language usage, they cannot produce high-quality

writing with the complex language and thought necessary for future success (National Commission on Writing, 2006).

While the growth of literacy development in the United States appears to be stagnant at the secondary level, the need for higher levels of literacy to function in the workplace and in life is increasing. Advanced levels of literacy will be needed not only for successful job performance but also for running households, acting as citizens in a democratic society, and coping with everyday life (Friedman, 2006; Heller & Greenleaf, 2007; Moore, Bean, Birdyshaw, & Rycik, 1999). Young people today will need “sophisticated literacy skills to negotiate a rapidly changing global and knowledge-based economy” (NASBE, 2006, p. 8) to live and work in the twenty-first century. Basic levels of literacy proficiency will not be enough. In the report of the New Commission on the Skills of the American Workforce (National Center on Education and the Economy [NCEE], 2007), commission members state that an essential foundation for success in the workplace of the future will include high levels of preparation in reading, writing, speaking, mathematics, science, literature, history, and the arts. This clearly indicates that schools must prepare students to learn how to comprehend material across all areas of the curriculum. What is not so clear is who should do this and how it will get done.

For several decades, content literacy instruction has been researched and presented to both preservice and inservice content-area teachers as specific strategies to gain information from text (Moje, 2006). Research has also found that many secondary teachers are not convinced that they need to teach reading strategies; rather, they feel they should concentrate on the subject matter of their content area. Many feel that adding literacy instruction as part of their teaching would be time consuming and better left to others. Because secondary teacher preparation has focused on content knowledge, there needs to be a clear understanding of which aspects of literacy are the responsibility of each content area. Teachers need to be encouraged to see that teaching adolescents the literacy strategies necessary for *their* content would develop a deeper understanding and a stronger learning of the content they are teaching. There is a need for secondary teachers to see the intersection of their content knowledge and the pedagogy specific to that content so they can help adolescents develop the advanced literacy skills they will need as well as give them a strong knowledge base (Heller & Greenleaf, 2007).

There are many recommendations from various sources that tell schools ways to improve adolescent literacy, and many feel there is a crisis in adolescent literacy development. However, there has not been the same widespread, systematic focus on developing literacy in secondary schools and districts as has been seen at the elementary

level—especially regarding reading in the content areas and developing higher-level reading ability (Heller & Greenleaf, 2007; Meltzer, Smith, & Clark, 2001; NASBE, 2006). In the past, responses to educational crises have led to the idea that there are quick fixes to literacy issues, with programs being developed and sold as the way to fix the problem. However, there are no quick fixes (Allington, 1995; Alvermann, 2001; Tovani, 2004), but rather a need to mobilize the community, parents, teachers, and students for the hard work needed to improve adolescent literacy.

Many experts feel that secondary schools should take a comprehensive approach to literacy improvement whereby struggling readers receive specialized instruction from highly qualified literacy professionals and content teachers who provide instruction in the higher-level literacy development needed in their respective content areas (Biancarosa & Snow, 2004; Graham & Perin, 2007; Heller & Greenleaf, 2007; Moore et al., 1999; NASBE, 2006). This comprehensive approach should include attention to engagement and motivation, determination of the literacy demands in each content area, ongoing professional development, a focus on critical analysis of print and electronic media, and active student involvement in their own learning (Alvermann, 2001; Heller & Greenleaf, 2007; Moje, 2006). We understand the importance of the comprehensive approach; however, this book will focus on guiding secondary teachers to teach literacy processes in content areas with a focus on learning within that subject area. Our definition of literacy includes the idea that literacy is a tool for learning in any subject.

Because of the focus on high-stakes testing through the No Child Left Behind Act, teachers are concerned about how students will perform on standardized assessments. We believe that if students learn how to process information effectively and learn how to learn, they will also raise their achievement test scores (Wiggins & McTighe, 2005). For this to happen, secondary teachers may have to take a different perspective on literacy—one that is directly related to their content area. They may need to see literacy instruction as a learning tool that will help them instruct students in their respective content areas. If literacy teaching methods are going to succeed in secondary schools, teachers will need to envision that they are helping students comprehend the content in their respective curriculum, thereby becoming a more effective teacher. In addition, secondary teachers need to understand literacy development as a lifelong process, not something that ends in elementary school. This life-span development perspective provides a base for the importance of continuing literacy instruction in secondary schools and throughout the content areas (Alexander, 2005/2006).

Lifelong Literacy Growth and Development

It is important to understand that literacy development grows throughout life and that new learning must take place to meet different and increasingly difficult demands for literacy as children move from the elementary grades to secondary schools. Learning to read is a process that continues throughout life (Alexander, 2005/2006; RAND, 2002). Alexander (2005/2006) went so far as to state that “until we adopt this lifelong perspective, we continue to run the risk of turning out undeveloped, unmotivated, and uncritical readers unable to fulfill their responsibilities within a democratic society” (p. 413). To extend the idea of literacy beyond the basic development of reading acquisition seen in an elementary-school perspective, reading acquisition should be considered only as an initial step to becoming a proficient adult reader.

What does this development process look like? Proficient adult readers read for interest and pleasure in a variety of materials for a variety of purposes and are willing to work hard to understand material that is not easy to understand nor particularly interesting to them (RAND, 2002). This developmental perspective includes the idea that teachers must not only help students develop the strategic processes that allow adolescents to access text, but teachers must also develop students’ background knowledge, vocabulary, understanding of purpose, and self-motivation and efficacy for when the going gets difficult. Additionally, teachers need to develop students’ understanding of how textual material is put together and how this understanding guides the reader. These aspects of literacy change as the challenges of more complex content and higher expectations for deeper understanding grow across the years of schooling. There are developmental changes that occur as readers move from early reading, where novices are processing texts for basic understandings, to becoming proficient or expert readers who use a high degree of knowledge about reading processes and texts as well as strong background knowledge in a variety of areas. The basic processes for proficient readers are unconscious and automatic. This allows them to devote mental energy to synthesizing what they are reading and learning in order to become analytical and critical readers. These are the goals for secondary readers. In order to reach those goals, adolescents must continue to receive instruction in higher-level comprehending strategies, questioning techniques, and vocabulary development, as well as in the development and use of background knowledge. Table 1.1 outlines some aspects of literacy growth that can be seen as young people

Table 1.1 Changes Over Time in Literacy Development

<i>Elementary School</i>	<i>Secondary School</i>
<p>Reading</p> <ul style="list-style-type: none"> • Recognizes and accurately uses a large core of known words • Navigates texts subconsciously • Maintains deep understanding of text • Reads for extended periods of time and reads texts over several days • Responds to text both verbally and in writing • Monitors reading efficiently and able to flexibly problem solve without losing momentum or meaning • Is familiar with a wide variety of genres • Reads expressively in meaningful phrases with natural sounding fluency • Reads in specific areas of interest 	<p>Reading</p> <ul style="list-style-type: none"> • Maintains areas of expertise from previous learning and experiences • Reads fluently both silently and orally • Applies knowledge of content domains while reading in a variety of texts • Applies knowledge of reading process while reading a variety of texts • Expands reading beyond specific areas of interest • Thinks about own understanding and self-regulates • Makes connections, interprets and synthesizes information read • Critiques texts and uses knowledge to determine authenticity
<p>Writing</p> <ul style="list-style-type: none"> • Makes deliberate decisions about form and genre • Writes longer pieces of several pages • Uses more complex sentence structures • Uses most end punctuation correctly; uses others variably (i.e., quotation marks, commas, ellipses) • Writes fluently, yet slows for difficult words • Spells most words correctly • Revises and edits 	<p>Writing</p> <ul style="list-style-type: none"> • Maintains writing fluency • Revises for meaning, organization, audience, and purpose • Revises to use more specific language attending to tone, voice, and style • Edits pieces for grammar and mechanics attending to complex structures and punctuation • Understands audience and purpose and adjusts writing as needed

<i>Elementary School</i>	<i>Secondary School</i>
<ul style="list-style-type: none"> • Gives feedback for revision to other writers • Plans writing • Is forming a sense of audience 	<ul style="list-style-type: none"> • Uses aspects of writers' craft from reading • Critically analyzes own and others' writing
<p>Word Knowledge</p> <ul style="list-style-type: none"> • Has basic phonics under control • Understands structural analysis of words including affixes, root and base words, and multisyllabic words • Has high frequency words under control in both reading and writing tasks • Uses visual analysis and understanding of word structure in spelling • Refines and extends vocabulary 	<p>Word Knowledge</p> <ul style="list-style-type: none"> • Problem solves a wide variety of words while reading • Uses resources as needed for word solving and for meaning • Acquires vocabulary knowledge through reading • Uses more diverse vocabulary in writing • Produces carefully edited pieces with attention to spelling

Source: Adapted from Alexander, 2005/2006; Fountas & Pinnell, 2001; Mahurt, Metcalfe, & Gwyther, 2007.

move from the elementary grades to the secondary grades. This table can help teachers see where students need to be in order to be successful in high school and beyond, knowing that learners enter secondary schools at different places along a developmental continuum.

What to Teach

Before thinking about literacy practices in content area classrooms, teachers must first think about student engagement and motivation. Secondary teachers may say that students aren't motivated, yet the main method of instruction in secondary classrooms is the transmission model, which requires little student participation (Alvermann, 2001; Moje, 2006). The transmission model sets up a passive learning stance in students that is often not engaging; students tune out this daily transmission and the teacher then sees them as unmotivated. Schmoker (2007b) suggested that if students are going to develop the

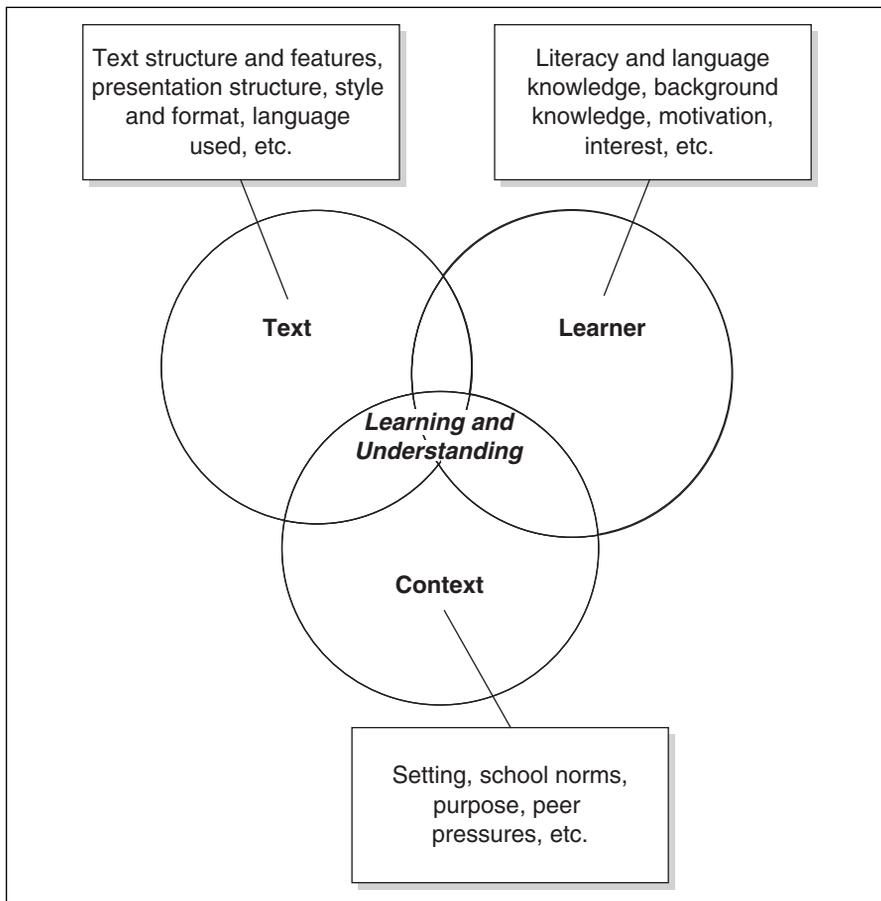
intellectual capacity to read and utilize the essence of the message in textual material, they must be active seekers of information who use reading as a tool in the quest for knowledge. This is a dramatic departure from the transmission model, where the teacher tells students information. Instead of using listening as the predominant way of learning, students can become the seekers of information rather than simply the receivers of information. Seekers of information are more likely to be interested and motivated to learn new things. Guthrie and Wigfield (2000) found that level of student engagement was one of the most important factors to affect outcomes in reading. Their research showed that a base for motivation and engagement was formed by engaging students in literacy events, providing opportunities for social interaction, and helping students set goals.

There are many factors that impact whether a learner takes in information and understands it. Not only do motivation and engagement impact learning in individuals, learners must also bring with them their knowledge of language, that particular content, and their background experiences. Additionally, the context in which the learning takes place—including the social interactions between students, the classroom norms, and the classroom environment—can impact learning. How material is presented—through written text, visually, or orally—has an impact on the learning that takes place as well. Figure 1.1 outlines these factors that teachers need to think about as they plan lessons and engage students in learning activities.

Research in Literacy

What does research say about the literacy practices that help adolescents learn? Students learn through a variety of contexts in secondary schools, including texts, teacher direct instruction, and past and evolving media. They need a reliable and structured process to be able to navigate through the variety of resources in order to gather, remember, and understand information. Research shows that an understanding of how information is structured, connected, and presented is critical to comprehending the intended meaning of the information (Simonsen, 1996). Whether a student will be reading, listening, or viewing information, the student needs to follow a process to understand the structure, connections, and presentation of a set of information.

Being able to understand what they are reading, hearing, or viewing at the secondary level requires that students have sophisticated comprehension abilities that require continuing instruction. There

Figure 1.1 Factors That Impact Learning

are several important areas of instruction that have been shown to be effective in working with adolescents in the content areas. One of the most frequently mentioned areas is that of developing comprehension strategies (Alvermann, 2001; Biancarosa & Snow, 2004; Moore et al., 1999; Tovani, 2004). Comprehension strategies that students need to learn include using their background knowledge, asking questions, determining the important ideas, monitoring and fixing up thinking when things aren't making sense, creating sensory images—both in-the-head as well as in graphic representations—and synthesizing. Each of these can be taught through explicit instruction with opportunities for the teacher to do think-aloud modeling of the processes she or he is using.

Using background knowledge on a specific topic for comprehension, thinking, and understanding is crucial to the higher-level thinking

adolescents need to do (Willingham, 2006). Background knowledge provides a structure for thinking. Using the analogy of a closet, people need hangers in their closets in order to better find clothes and even to think about the clothes they have. In their brains, they need hangers to categorize and use new information. For example, to truly understand the civil rights movement in the United States, students have to have a clear, in-depth understanding of slavery and its underpinnings—the hangers in the closet. This background knowledge allows them to think more critically about how and why the civil rights movement got started and why there was so much resistance to the idea of integration. In addition, background knowledge provides a base for thinking when text becomes difficult. Background knowledge gives the reader something to stand on while they access new information.

Learners should be actively engaged readers. Actively engaged readers ask themselves questions before they read, while they are reading, and after they read. They wonder about things and hypothesize about the author's meaning, intent, and style (Keene & Zimmerman, 2007). Readers may also ask themselves questions to help remember new information. For example, a reader might turn textbook headings into questions and then read to find the answers as a way to remember the important points of that section of the text. At times, readers may have questions that are not directly stated in the text and may continue reading to find possible answers to their questions or move to other resources to find answers. Often, experienced readers don't realize that they are asking questions as they read. That is why it is important to make visible to students how to ask good questions and how to train their mind to attend to the questions they are asking.

Being able to determine what is important is critical when learning new information—whether from texts, lectures, or other media. Oftentimes, in order to engage the learner, authors and speakers will add interesting facts to their books and lectures. For example, in Jean Fritz's (1997) book *Shh! We're Writing the Constitution*, she included interesting facts, such as that George Washington had wooden false teeth and that Ben Franklin was carried to the Constitutional Convention in a chair held above the muddy streets. The section of the book that includes these interesting details also tells about the grievances of the colonists and the events that led up to the convention. In several classes, students remembered the interesting facts but not the overall importance of why the colonists began their journey to freedom from Britain—the more important idea to remember. Determining what is important is also critical when listening and

taking lecture notes. Even when listening, knowing which points are important or critical to understanding is necessary as they must be sorted from lecturers' asides and stories.

Summarizing, another important comprehension strategy, builds directly on being able to determine what is important. In order to summarize, a person must take the relevant information and pull it together in a cohesive way. Using the Jean Fritz book example, a summary of information about the Constitutional Convention would not include information about Washington's teeth. In the same way, a summary of a lecture would include only the salient points.

Proficient learners monitor their understanding. They know when they lose track of the meaning and take action to get it back. If reading, they might reread to gain understanding or discuss the difficult section with others. They might also use their background knowledge, or go to other sources to gain background knowledge, before tackling the difficult part again. Often, adolescent readers give up when a text becomes difficult. That is why it is important to explicitly teach several actions students can take to assist with comprehension (Keene & Zimmerman, 2007; Tovani, 2000). Several of these fix-up actions include changing the pace of the reading: slowing down for tricky parts, stopping to think about what has been read to determine what was important, or thinking about questions. Sometimes it helps to summarize orally or in writing what is known and understood up to that point. This might focus a rereading or point the reader forward. Visualizing or sketching a graphic organizer can help refocus a reader as well. These fix-up strategies can be explicitly taught and are useful before, during, or after reading.

While forming sensory images is useful as a fix-up strategy, it is also useful in helping learners develop deeper insights into what they are reading. Thinking about feelings, smells, and sounds can bring something to life—whether it is science, social studies, or any other content area. Tovani (2004) uses an example of a description of smallpox's effect on people from a book used in a science classroom, where the students were asked to draw pictures of the effects they read about. They could have been asked to write about the sounds they may have heard in the hospitals filled with victims of smallpox, or they might have been asked to talk about the emotions of the scientists and doctors working to cure the disease. Bringing sensory images into play deepens understanding.

Another form of visualizing that is helpful in deepening understanding is graphic representation of information and information relationships. Graphic organizers can take many forms, such as KWL

(Know, Want to know, Learned; Ogle, 1986), comparison charts, chains (for chronological listings), webs (for description and relationships), and so on. Being able to take information and see how it can be organized in different ways using a visual representation helps readers connect and categorize information in ways that are meaningful.

Being able to synthesize information is a high-level strategy. Synthesizing means going beyond summarizing what has been read or learned to come up with new ways of thinking that build on past understandings and newly learned information. Synthesis requires the learner to take a variety of ideas from different sources of information and their background knowledge to come up with newly constructed knowledge. It includes understanding theme, revising opinions, adding to something they already know, understanding a different perspective, or coming up with an original idea (Harvey & Goudvis, 2007).

In addition to comprehension strategies, learners need to understand the terminology of the different content areas as well as the general vocabulary often used in academic settings. Vocabulary development is a critical part of content literacy. However, vocabulary is more than listing words with definitions for students to study before a reading, a video, or a lecture. For vocabulary development to make a difference, students must be actively engaged in using the words in a variety of ways. They also need to discuss the nuances and shades of word meanings to understand how a word is used in a particular context and why that specific word was chosen. Showing the connections of words to other words through semantic organizers allows for greater access to precise meaning. Understanding vocabulary has a direct effect on comprehension.

When learners are reading to gain content knowledge, understanding how expository texts are structured and how they may be structured in various content areas is important for understanding. There are basic patterns of expository text that include sequence, description, comparison, and cause and effect. Understanding these structures—what they look like and what key words signal the structure—can aid in understanding. Using the knowledge of text structure to construct mental maps or graphic organizers provides organization for information. For example, knowing that a text section is structured as a comparison/contrast allows the reader to mentally or graphically organize what they are reading in that way.

It is important to remember that texts are tools for learning, and simply reading a textbook will not provide for the depth of understanding in content areas that secondary students need. Having a variety of texts written from a variety of perspectives allows for the

synthesis of knowledge. This also allows for thinking that goes beyond simple recall of information. In addition, there are many resources available today for gaining information. Using electronic media and understanding how it is structured is also important—whether text-based, oral, or visual in nature.

How This Book Helps

In this chapter, we outlined both the issues surrounding adolescent literacy today and some important areas for developing literacy and content knowledge. In the rest of this book, we will provide a framework for an instructional process that focuses on before, during, and after reading activities that include a variety of whole-group, small-group, and individual activities to engage students in their own learning. The instructional practices within the structured plan can lead students not only to be better readers, writers, and learners, but also to have greater mastery over the content being taught. We hope that our combined understandings—through Dan’s expertise in instructional knowledge at the secondary level and Sarah’s knowledge of literacy processes—will provide a base for helping secondary students to learn.

We also hope that by using the processes outlined in this book, teachers will find useful methods for facilitating both student learning and engagement in literacy and in the content areas. The process follows the basic concepts found in much of the literature about successful literacy development and is in a format that takes teacher time into consideration. In these processes, students are engaged in prereading, during-reading, and postreading activities. We are using the term *reading* broadly here to include not only reading but also listening to a lecture, watching a video, or engaging in any other types of learning activities in the classroom. Students should be engaged in the before-, during-, and after-learning process even if other means of accessing information beyond reading are used. In this book, we will focus on reading in particular; however, many of the examples could be useful when instruction includes listening, viewing, or multimedia learning.