

Key Areas of Effective Adolescent Literacy Programs

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Abstract

This paper reviews best practices for effective adolescent literacy programs. A focus is placed on five areas of literacy instruction including word study, fluency, vocabulary, comprehension, and motivation. Each of these areas is discussed as well as how each area is relevant to reading and understanding narrative and content-area text at high levels.

KEYWORDS: adolescent literacy, academic literacy, vocabulary, comprehension, narrative, content-area, fluency, motivation, word study

“**A**t no other time in our history has the ability to read been so important to all members of society” (Coyne, Kame’enui, & Carnine, 2011, p. 50). In fact, learning to read is the most important skill our students can learn in school, serving as the very foundation of all other academic subjects. Consider the following statistics noted by Brozo (2009)—about two-thirds of eighth and twelfth graders read below grade level; 32% of high school graduates are not prepared for college-level English composition courses; 40% of high school graduates do not have the literacy skills required by employers; and 1.2 million students drop out of high school every year with literacy skills lower than those in most industrialized nations. Ensuring adolescents become literate, productive members of society is an undertaking that may not only increase the number of students who graduate from high school, succeed in college, and work in jobs that support a healthy lifestyle, but may also save the nation billions of dollars.

According to Graham and Hebert (2010), \$16 billion a year is spent by universities and businesses due to students’ inadequate reading and writing skills. “Somewhere between one half to two thirds of new jobs in the future will require a college education and higher-level literacy skills” (Graham & Hebert, 2010, p. 7). With regard to the workplace, 40% of high school graduates lack the required literacy skills employers desire (National Governors Association for Best

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Practices [NGA], 2005). For students to be prepared for 21st century higher education and employment opportunities, literacy skills need to be explicitly taught throughout the adolescent years (NGA, 2005).

While some of the problems may stem from a lack of quality literacy instruction in the elementary grades, it is more likely that a lack of instruction to read complex text throughout the upper grades and beyond is the culprit (Greenleaf & Hinchman, 2009). The purpose of this paper is to discuss the research base of best practices for teaching adolescents the advanced literacy skills they need to succeed in high school, college, and the workplace (see Common Core State Standards for important information on college and career readiness literacy skills for students in grades k-5 and 6-12 at <http://www.coresstandards.org>). Recommendations are made based on a review of this research base. This paper should not be considered a meta-analysis or research synthesis of all studies encompassing adolescent literacy.

The Importance of Academic Literacy

Academic literacy is the kind of reading proficiency needed to draw meaning from advanced narrative text and content-area text (Kamil et al., 2008; Kosanovich, Reed, & Miller, 2010; Torgesen et al., 2007). Academic literacy also requires reading proficiencies such as being able to make inferences from text, learning vocabulary from context, making intertextual links, and summarizing the main ideas within a text (Torgesen et al., 2007). Two results should occur from improvements in academic literacy (Torgesen et al., 2007). First, students should be able to respond to more complex questions, thereby demonstrating their deeper understanding of the material. Second, students should be able to master more information from content-area classes.

Similarly, Lee and Spratley (2010) used the term “disciplinary literacy” to describe the idea that adolescent readers typically require more specialized and complex literacy support and instruction in content areas. Beyond the elementary grades, students are expected not only to read and decode effectively but also to read for understanding. Snow and Moje (2010) described the widespread and misguided assumption that we should finish reading instruction by the end of third grade. They used the term “inoculation fallacy” to illustrate the notion that an early vaccination of reading instruction, especially in grades K-3, does not protect permanently against reading failure. Educators must continue to provide reading instruction beyond third grade. In sum, academic literacy goes beyond being able to read—a successful reader should be able to navigate advanced narrative and content-area text with ease and understanding.

Narrative Text

Narrative text describes events that occur through time that are “related through a causal or thematic chain” (Brewer, 1980, p. 223). In general, narrative text involves reading presented as nonfiction (e.g., biographies and memoirs) or fiction (e.g., novels and fables) that tells the reader *who did what to whom and why* (Dymock, 2007; Harris & Hodges, 1995). Research indicates that lower knowledge readers may benefit more from content delivered through narrative text that facilitates interest and builds better background knowledge (Wolfe & Mienko, 2007).

Adolescent students might struggle to read narrative text for a myriad of reasons. Narrative text encompasses a wide breadth of genres, in both fiction and nonfiction domains. As students progress through grade levels, the narrative text they are exposed to becomes increasingly complex (Dymock, 2007). Moreover, a lack of knowledge about narrative text structure, a skill generally acquired before or during early elementary education (Stein & Glenn, 1979), can broadly interfere with student comprehension across academic areas (National Institute for Child Health and Human Development [NICHD], 2000). Similarly, there may be fewer opportunities for struggling students to read narrative types of text at more advanced grade levels, and what narrative text they are exposed to will generally be comprised of content at a consistently advanced level. Finally, while lower knowledge readers may benefit more from content delivered via narrative text (Wolfe & Mienko, 2007), the majority of academic text for adolescent readers is expository in nature (Sáenz & Fuchs, 2002).

Content-Area/Expository Text

To be academically literate, the ability to read content-area text is an essential requirement. Content area is specific to certain subjects in a school setting. In general, most students can read and decode simple text but struggle with more complicated materials that are often present in middle and high school settings, namely science and social studies textbooks (Heller & Greenleaf, 2007). Therefore, literacy and learning within the content areas has become a critical feature of success for adolescent readers (Kosanovich et al., 2010). Research supports the notion that reading instruction should not end in the elementary grades but should continue throughout school. Adolescent readers need to develop more complex skills in order to learn from the increasingly specialized and complicated texts they will encounter in middle and high school (Fang & Schleppegrell, 2010).

Reading content-area text is difficult for several reasons. First, students typically have fewer experiences with expository text (Lenski, Wham, Johns, & Caskey, 2007). Second, the reading material in content-area text is often denser than the material in narrative text (Coyne et al., 2011). The organization is typically harder to follow (Abadiano & Turner, 2002; Sáenz & Fuchs, 2002), and the vocabulary is increasingly technical (Abadiano & Turner, 2002; Ediger, 2002; Fang, 2006; Sáenz & Fuchs, 2002). Third, reading the cumbersome multipart words found in and associated with science and social studies textbooks can be a significant stumbling block (Fang, 2006). Finally, the content in textbooks is based on the assumption that the readers have some previous knowledge of the topic at hand (Sáenz & Fuchs, 2002). In fact, Lee and Spratley (2010) stated that being able to comprehend written text is not a fixed ability but instead involves an interactive relationship between the text and prior knowledge and skills of the reader.

Adolescent Literacy

Adolescent literacy is focused reading instruction for students in grades 4 through 12. In a survey of reading experts conducted by the International Reading Association, adolescent literacy is considered a “very hot” topic. In fact, this topic “first appeared on the survey in 2001 and in 2006 attained ‘very hot’ status and has remained so ever since” (Cassidy, Ortlieb, & Schettel, 2010/2011, p. 1). Results of this survey illustrate a change in how “instructional business” is conducted in the primary grades (K-3). Instruction has been centered on teaching the basics of reading—*learning to read*. Reading instruction for older students has now shifted from the foundational focus of *learning to read* in grades K-3 to *reading to learn* for students in grades 4 and above. In 1997, Congress asked the NICHD to coordinate a panel to examine the research base and the efficacy of various instructional practices related to early reading (grades K-3). As a result, the National Reading Panel [NRP] was formed. In 2000, the NRP published the *Report of the National Reading Panel* and narrowed reading instruction to alphabets, fluency, comprehension, teacher education and reading instruction, and technology and reading instruction. Armbruster, Lehr, and Osborn (2006) interpreted the NRP findings and made specific instructional recommendations for the classroom. Research-based practices for students in grades K-3 include phonemic awareness, phonics, fluency, vocabulary, and text comprehension (Armbruster et al., 2006).

Following on the heels of focused elementary-based reading instruction, Biancarosa and Snow (2006) developed guidelines for effective adolescent literacy instruction. *Reading Next* specifically

addressed 15 components that best describe instructional practices for adolescent readers (Biancarosa & Snow, 2006). The components encompass instructional and infrastructure improvements necessary for effective literacy programs. The 15 elements include: (a) explicit comprehension instruction, (b) effective principles embedded in content, (c) motivation and self directed learning, (d) text-based collaborative learning, (e) strategic tutoring, (f) diverse texts, (g) intensive writing, (h) technology, (i) ongoing formative assessment, (j) extended time for literacy, (k) professional development, (l) ongoing summative assessments of students and programs, (m) teacher teams, (n) leadership, and (o) a comprehensive and coordinated literacy program. Research reviews and meta-analyses on adolescent literacy instruction followed (see Boardman et al., 2008; Kamil et al., 2008; Roberts, Torgesen, Boardman, & Scammacca, 2008; Scammacca et al., 2007; and Torgesen et al., 2007 for details). Funding on adolescent literacy initiatives became evident. For example, the Striving Readers program was developed. The Striving Readers program is funded and endorsed by the U.S. Department of Education and focuses comprehensive literacy support for students from birth to grade 12.

Achievement in Adolescent Literacy

The challenges of adolescent literacy are vast. The 2009 report of the *Nation's Report Card* (National Center for Education Statistics [NCES], 2009) showed that while scores exhibited a slight increase from 2007, there were still a disproportionate number of fourth- and eighth-grade students reading below grade level. The National Assessment of Educational Progress uses the term *basic* and *proficient* to describe levels of reading achievement. The *basic* level indicates only partial mastery of knowledge that is required for that grade level. The *proficient* level shows competence over grade-level material. For fourth grade, only 33% were at or above the proficient level, with 67% scoring at the basic level or below. The results for eighth grade showed only 32% at or above the proficient level, with 68% scoring at the basic level or below. Finally, in the twelfth grade, 38% scored at or above the proficient level, with 62% scoring at the basic level or below (National Center for Education Statistics [NCES], 2010). These numbers are staggering considering that the *basic* level denotes only partial mastery of prerequisite knowledge that is essential to performing at grade level. Students should be performing at proficient levels to handle the kinds of text they will encounter in the upper grades.

Further, about 8 million adolescent students experience difficulty reading at their appropriate grade level (ACT, 2006; Biancarosa & Snow, 2006). In fact, "some 70 percent of older readers require some

form of remediation. Very few of these older struggling readers need help to read the words on a page; their most common problem is that they are not able to comprehend what they read" (Biancarosa & Snow, 2006, p. 3). Too often, reading instruction in middle and high schools is lacking and the curriculum is ill equipped to prepare students to comprehend the material (Greenleaf & Hinchman, 2009).

The Need for Explicit Instruction

When academic literacy skills are taught, explicit instruction should be provided. Explicit instruction involves direct teaching including teacher modeling, guided student practice with feedback, and independent student practice (Hock, Deshler, & Schumaker, 2000; Marchand-Martella & Martella, 2013; National Institute for Literacy [NIFL], 2007). Biancarosa and Snow (2006) and Kosanovich et al. (2010) list explicit instruction as the chief way to promote student learning. This systematic instructional process provides a framework for the gradual transfer of responsibility for student learning from the teacher to the student as the student becomes increasingly successful (Marchand-Martella & Martella, 2013). Each step of comprehension (i.e. strategies, monitoring and metacognition, teacher modeling, scaffolding, and apprenticeship) requires the use of explicit instruction by teachers in order to be successfully implemented by readers (Biancarosa & Snow, 2006). The key to explicit instruction is ongoing interaction and communication between the students and the teacher (Rupley, Blair, & Nichols, 2009). Only then can students learn to comprehend, understand, and interact with written text (Rupley et al., 2009).

Research almost universally supports explicit instructional practices (Archer & Hughes, 2011; Kirschner, Sweller, & Clark, 2006; Klahr & Nigam, 2004; Marchand-Martella, Slocum, & Martella, 2004). Explicit instructional approaches are considered more effective and efficient as compared to discovery-based approaches (Alfieri, Brooks, Aldrich, & Tenenbaum, 2010; Ryder, Tunmer, & Greaney, 2008), particularly when students are naïve or struggling learners.

Vaughn and Linan-Thompson (2003) answered the question, "So what is special about special education for students with LD?" Their answer, again based on a thorough review of the research literature, noted "students with LD benefit from explicit and systematic instruction that is closely related to their area of instructional need" (p. 145). Burns and Ysseldyke (2009) examined the frequency with which evidence-based practices were used with students with disabilities. They found explicit instruction was the most frequently used instructional methodology in their survey of special education teachers and school

psychologists. No matter what research synthesis was reviewed, “the conclusions were clear: Explicit instruction should be a consistent mainstay of working with students both with and without learning difficulties” (Archer & Hughes, 2011, p. 17).

Five Areas of Effective Adolescent Literacy Programs

Based on the research reviews and meta-analyses on adolescent literacy instruction, recommendations can be organized into five general areas: word study, fluency, vocabulary, comprehension, and motivation (Boardman et al., 2008; Kamil et al., 2008; Roberts et al., 2008; Scammacca et al., 2007; Torgesen et al., 2007). Figure 1 illustrates these areas. Each of these areas is crucial to the reading improvement of older readers. Conspicuously absent from this list are phonemic awareness and phonics. If older students lack skills in phonemic awareness and phonics, these skills should be taught in an explicit and systematic fashion (see Armbruster et al., 2006 and Boardman et al., 2008 for a discussion on the importance of teaching these foundational skills).

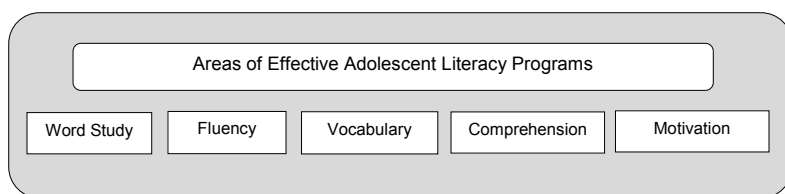


Figure 1. Five areas of effective adolescent literacy programs.

Word Study

Instruction that focuses on reading at the word level is referred to as word study (Boardman et al., 2008). Deficits in word study negatively impact students' comprehension, vocabulary, and fluency (NIFL, 2007). Word study can benefit readers of any age and is best used when accompanied by materials appropriate to the age level of the student. It relies on word analysis and word recognition strategies in addition to identifying words that are irregular and unpredictable. By identifying words based on component elements that share certain commonalities such as the prefixes *un-*, *non-*, and *dis-*, students can learn groups of words and skills that no longer necessitate the memorization of individual words and meanings (Hennings, 2000). Instructional practices include teaching students how to use strategies to aid in reading words by breaking them into parts and identifying syllable types. Boardman et al. (2008) recommend teaching students: (a) to identify and break words into syllable types, (b) to read

multisyllabic words, (c) to identify irregular words that do not follow typical patterns, (d) the meanings of word roots, bases, endings, prefixes and suffixes; and (e) when and how to use what they know about the structure of words to decode unknown words. Word study can be useful when content-area words are integrated and studied in a language arts classroom (Invernizzi, Abouzeid, & Bloodgood, 1997).

Decoding multipart or multisyllabic words is critical to success in reading content-area and narrative text in middle and high school. Many adolescent readers have basic decoding skills and can read simple texts; however, there is a significant population that struggles with decoding the more complex vocabulary (Boardman et al., 2008). Multisyllabic words are almost entirely responsible for understanding the meaning of most content-area text (Archer, Gleason, & Vachon, 2003). As previously noted, Boardman et al. (2008) suggested explicit teaching in breaking down words into their parts, blending the sounds in multisyllabic words, recognizing irregular words, suffixes, prefixes, endings and roots, and finally, teaching students how and when to use the above structural analysis skills when trying to decode unfamiliar words. Diliberto, Beattie, Flowers, and Algozzine (2009) suggested that since many struggling readers do not have the letter-sound correspondence mastered, explicitly teaching syllable chunking is an appropriate tool for struggling readers to use to decode multipart words.

Fluency

Fluency is the ability to read words “accurately, quickly, and with proper expression” (Malmgren & Trezek, 2009, p. 3). When students read fluently, they can devote their efforts toward understanding what is being read and spend less time decoding (Boardman et al., 2008). Fluency is a critical component of reading because it provides the connection between simply reading the words and actually understanding their meaning (Malmgren & Trezek, 2009). To improve fluency, Boardman et al. (2008) suggested (a) tracking students’ progress in fluency and providing feedback on a frequent basis, (b) providing models of fluent reading and giving appropriate feedback, (c) allowing students to be proactive learners by letting them self-monitor their fluency, (d) using teacher-selected passages that include vocabulary that has been studied and previously taught or passages that can be read independently, (e) gradually increasing the difficulty of the passages as students demonstrate improved performance, and (f) using repeated oral reading with feedback.

The best method of improving reading fluency is through repeated oral reading (Hasbrouck, 2006; Hasbrouck & Tindal, 2006; Therrien, 2004). Fluency is a crucial element in adolescent literacy because if readers can devote less time and effort to decoding the words they are reading, they can spend more time understanding the words. Repeated reading typically requires students to read a particular passage several times until a desired goal is met (e.g., 100 correct words per minute [cwpm]) or for a certain length of time (e.g., 10 minutes). When using repeated oral reading, Boardman et al. (2008) recommended using passages with previously taught vocabulary that are at the students' reading level. In effect, repeated readings lead to increased vocabulary recognition with sight words and general vocabulary words, provide more practice opportunities for struggling readers, and are useful for fluency timings to monitor students' reading progress.

Vocabulary

Boardman et al. (2008) defined vocabulary development as knowing the meaning of words. When students understand the words they read and have strategies to figure out unknown words, they can make greater gains in understanding the meaning of what is being read. Many struggling students enter the classroom with grossly limited vocabularies compared to other classmates; without intervention these students are in danger of falling even further behind in the content areas (Rupley & Slough, 2010). However, when given the support and strategy-based vocabulary instruction, students are able to take previously unknown words and determine ways to glean the definition from the surrounding context or from other sources (Armbruster et al., 2006). Vocabulary knowledge is complex and multidimensional because it requires several layers of information including definitions, inter-word relationships, and differing connotations based on context (Lesaux, Kieffer, Faller, & Kelley, 2010). Students who struggle with reading often lack the "word consciousness" necessary to succeed and move forward (Boardman et al., 2008).

Specific-word and word-learning strategies are necessary for increasing students' vocabulary. Specific-word instruction teaches individual words to students. Words are divided into three different tiers (Beck, McKeown, & Kucan, 2002). Tier 1 words are words students are likely to already know (e.g., baby, happy). Tier 2 words are words that appear often in text and are more complex though not uncommon (e.g., coincidence, absurd). Tier 3 words are words that are specific to different content areas (e.g., spelunker, hydrogenous).

Beck et al. (2002) suggest teachers focus vocabulary instruction on tier 2 words while also explicitly teaching tier 3 words to relevant content areas. McEwan (2007) offered several guidelines to teach vocabulary to mastery. First, teachers should post the vocabulary in the classroom to serve as a visual aid for those who may have trouble with the pronunciations. Second, teachers should provide student-friendly definitions of the words and suggest synonyms and antonyms of the words. Third, teachers should put the words into context and make connections to familiar aspects of students' lives. Fourth, teachers can use word games and concept maps to help students gain familiarity with the words and a conceptual framework to build around each word. Finally, teachers should ask questions and incorporate new vocabulary into everyday language.

Word-learning strategies, such as context clues and the use of references aids, are ways of accessing word meaning in an independent manner. Because teachers cannot teach students every word they need to know, it is vitally important students use strategies to learn the words themselves (Armbruster et al., 2006). Context clues involve defining unknown words using the surrounding words or sentences to derive their meaning (Carnine, Silbert, Kame'enui, & Tarver, 2010; Edwards, Font, Baumann, & Boland, 2004). Through careful and explicit teaching, a context clue strategy can be learned and vocabulary increased. Reference aids are helpful tools students use to determine word meaning (e.g., glossary, dictionary, or online dictionary) (Armbruster et al., 2006; Vaughn & Bos, 2009).

Comprehension

Comprehension is a skill that allows readers to understand and remember content that has been read. Previously mentioned areas of literacy—word study, fluency, and vocabulary— all serve as catalysts to remembering and understanding content on the written page (Boardman et al., 2008). Comprehension is “a complex cognitive endeavor and is affected by, at least, the reader, the text, and the context” (McKeown, Beck, & Blake, 2009, p. 218). At the secondary level, reading comprehension is arguably the most important component of reading instruction (Boardman et al., 2008). Readers who are successful at comprehending what they have read employ a variety of strategies before, during, and after they read. Therefore, more in-depth coverage of these comprehension strategies will be provided in this paper.

Activate prior knowledge. A key strategy for enabling readers to make connections with text is activating prior knowledge of the subject matter. Boardman et al. (2008) reported using strategies

including previewing headings and concepts or making predictions and charting the results to increase students' interest. Students are encouraged to use their interest to make valuable connections with the text. To comprehend texts at deeper levels, students need to make inter-textual links connecting ideas from one text to another. Lenski (1998) surmised that when teachers plan and strategically compile texts with related issues or topics, they are giving the students the tools to make the necessary connections. Similarly, Lee and Spratley (2010) noted possessing prior knowledge of topics can influence what students comprehend, what attracts students' interest, and even what influences their opinions and perspectives.

Making connections through an activation of prior knowledge helps to foster motivation and reading engagement (Lenski et al., 2007; Tovani, 2000). Moreover, students who make connections during reading can better understand the relationship between the concepts being presented (Lenski et al., 2007). Many teachers provide students with structured text-connection activities to encourage better understanding of the material.

Monitor comprehension. Another important comprehension skill that should be taught to adolescent learners is comprehension monitoring. By monitoring their own comprehension, students are able to oversee their understanding while they read, implementing corrective strategies when necessary (Boardman et al., 2008). Boardman et al. recommended teaching strategies that enable students to identify confusing or hard words and how to fix their misunderstandings when reading text. Slowing down when reading and rereading difficult texts are two more ways students can monitor their comprehension and improve their understanding (Robb, 1995; Schoenbach, Greenleaf, Cziko, & Hurwitz, 1999). For readers to become successful, employing these strategies and being aware of when to use them are essential skills.

Ask and generate questions. An effective tool for activating student engagement with text is asking questions before, during, and after reading (Boardman et al., 2008). When teachers develop comprehension questions and activities, Bloom's Taxonomy should be considered (Anderson et al., 2001). The Taxonomy of Education Objectives was originated by Benjamin S. Bloom in 1956 and is commonly called Bloom's Taxonomy (Kratwohl, 2002). Originally, Bloom's Taxonomy had its purpose in creating a common language with regard to goals in education and also lends itself to the decision-making process related to curriculum. Recently, Bloom's Taxonomy was revised and is divided into six categories of cognitive processes: remembering, understanding, applying, analyzing, evaluating, and creating. Bloom's

Taxonomy is important because it can be helpful in creating questions that support or encourage higher order thinking in students.

Question generation requires students to develop and ask their own questions based on what they are reading (Hashey & Connors, 2003; Rosenshine, Meister, & Chapman, 1996; Vaughn & Bos, 2009). When students generate questions, they are typically more motivated to read the text, clarify information they do not know, and exhibit inferential thinking (Tovani, 2000). Evidence also suggests that writing questions and answers makes the information easier to remember and provides more opportunity to interact with the content of the text (Graham & Hebert, 2010). Readers who struggle often fail to understand that deriving meaning from text requires active probing for meaning (Duffy, 2003).

Graphic organizers. Graphic organizers are visual aids that help students remember, organize, and identify key information from their reading. Some examples of graphic organizers include Venn diagrams, concept maps, and story maps. Boardman et al. (2008) give several suggestions for the use of graphic organizers in the classroom. They can be used before reading to introduce information and to make predictions. During reading, they can be used to evoke discussions and to represent connections as well as to record information. After reading, they are useful for writing summaries and reviewing information. A research review (Vaughn & Edmonds, 2006) examined the effectiveness of graphic organizers for students with disabilities and noted improved reading comprehension.

Mnemonic strategies. Mnemonic strategies are helpful comprehension strategies to teach to students; they are systematic procedures for enhancing memory and devices that aid students in remembering and retrieving important information (Lenski et al., 2007; Mastropieri & Scruggs, 1996). These strategies can help students take control of their learning (Glynn, Koballa, & Coleman, 2003). They can be useful scaffolding aids in content-area classrooms and serve to organize information into a systematic framework that is easy to remember (Glynn et al., 2003). The key to mnemonic strategies is to relate new information to what students have previously learned (Mastropieri & Scruggs, 1998). Mnemonic strategies have been found to be effective in bolstering students' story recall (Saczynski, Rebok, Whitfield, & Plude, 2007), vocabulary (Bryant, Goodwin, Bryant, & Higgins, 2003), and comprehension (Uberty, Scruggs, & Mastropieri, 2003).

For example, SQ3R is a questioning and mnemonic strategy that assists students in acquiring information from content-area text. SQ3R stands for Survey, Question, Read, Reflect, and Review, although other Rs are noted (e.g., Recite). The SQ3R strategy is one of the most

prominent techniques for gleaning information from text (Vaughn & Bos, 2009). When students survey text, they should scan text features, looking at such parts as the beginning, the main part, and the end of a chapter, examining titles and subheads, sidebars, and visuals with captions. These features are components of a textbook that are added to enhance interest or understanding (Fisher, Frey, & Lapp, 2008).

Hedin and Conderman (2010) suggested using text features in rereading could be a useful tool. They argued that because the text is organized in a predictable way, using the text features can aid striving readers to reread paragraphs with greater understanding and, ultimately, greater meaning.

After scanning for text features, students should develop questions from the titles, subheads, or bold and highlighted words and read to answer these questions. Note taking helps students learn important information. When taking notes, students generally comprehend better because they are actively attending to the information. Writing about a text theoretically should enhance comprehension because it “provides students a tool” for recording, connecting, analyzing, and personalizing key ideas (Graham & Hebert, 2010, p. 13). Additionally, Graham and Hebert (2010) asserted that when students write about the material they read, their reading skills are enhanced. Also, when students are reviewing their notes, they are more likely to remember the material because they can spend more time with it (Robinson et al., 2006). Research suggests teaching strategic note taking is effective for aiding students with disabilities to recall and learn a greater amount of information (Boyle & Weishaar, 2001). Students then use these notes as study guides (Ogle, 1996; Santa, Havens, & Harrison, 1996). After students take notes, they should reflect on their written notes, making important text-to-text, text-to-self, and text-to-world connections (Tovani, 2000). Finally, students should review their written notes. This review serves as an important study strategy (Lenski et al., 2007).

Text structure. An emphasis should be placed on text structure. Text structure refers to the way in which the text is organized (Montelongo, Berber- Jiménez, Hernández, & Hosking, 2006; National Education Association [NEA], 2006). Noting the text structures used by authors is one way for readers to organize information (Fisher et al., 2008). Expository text structure is usually organized in the following ways: (a) compare and contrast, (b) problem and solution, (c) cause and effect, (d) order or sequence, and (e) description/list. Recognizing text structure causes students to interact with the text to identify how the text structure and concepts are related (Montelongo et al., 2006; NEA, 2006). Authors use this text organization to communicate

information to the reader. Additionally, Montelongo et al. (2006) found that identifying text structure helps students organize the most important information in science and social studies textbooks as well as identify the main ideas and help with recalling vital facts from the text.

Story grammar or story structure is “an attempt to construct a set of rules that can generate a structure for any story” (Rayner & Pollatsek, 1989, p. 307). In narrative text, the structural organization of the content contains common story elements—characters, settings, events, conflict, climax, and resolution (Duffy, 2003; Lapp, Flood, Brock, & Fisher, 2007). Faggella-Luby, Schumaker, and Deshler (2007) suggested narrative text structure analysis be introduced in a routine that includes three steps. First, students use self-questioning during pre reading. Next, students analyze the story structure during reading. Finally, after the reading, students summarize what they read.

Summarization. Summarization should be a key focus of instruction. In summarizing, students must identify, extract, and combine the most important information in the text (Schoenbach et al., 1999). Explicit instruction that teaches students how to summarize information is an important step in increasing students’ comprehension. Graham and Hebert (2010) found that writing summaries about what was being read showed marked improvements in reading comprehension. They also stated that writing summaries about text is better than simply reading and rereading it. Teachers should provide examples and non-examples of quality summaries following instruction of how to write summaries of information. Summarization is a key strategy in getting students to remember and understand material they have read. Teaching students to summarize text ensures comprehension, given that students need to recall essential details encountered while reading (Carnine et al., 2010).

Reciprocal teaching. Reciprocal teaching is a cooperative learning, scaffolded instructional procedure developed by Palincsar and Brown (1984) to bolster reading comprehension. Ideally, it is used with students at any grade level who score 35% or below on standardized reading assessments (Biancarosa & Snow, 2006). Reciprocal teaching consists of four strategies: questioning, clarifying, predicting, and summarizing. Questioning is the process of asking (silently, orally, or written) questions regarding recently read or reviewed text. Clarifying requires that the students clear up any questions about vocabulary or content in the text. When students guess what might happen next in the text, they are employing the predicting strategy. Finally, the summarizing strategy is a skill in which students take what they have read and condense the information identifying the gist of the

content. The teacher models each skill then asks the students to implement the strategies in small groups. The students each take turns being the “teacher” and progressively work through each strategy with multiple texts (Biancarosa & Snow, 2006).

Metacognition. Metacognition is the process of thinking about one’s own thinking. (Klingner, Vaughn, Dimino, Schumm, & Bryant, 2001). When students demonstrate metacognitive skills, they have the ability to discriminate between skills and strategies that are appropriate to use and under what conditions to use them. Ultimately, students need to think about what comprehension strategies they are using and if those strategies are necessary and useful. Biancarosa and Snow (2006) named metacognition instruction as an effective approach toward improving comprehension by saying that it is necessary to teach students to learn how they understand while they are reading. Successful learning in content-areas requires students be aware of how they understand a concept and how to “adjust their thinking to ensure learning” (Wilson, Grisham, & Smetana, 2009, p. 709). Wilson et al. (2009) also asserted that content learning and metacognition are executed by interactions with the text and through other experiences with the content.

Motivation

Struggling readers frequently lack the motivation to read (Boardman et al., 2008). Reading comprehension can be hindered by a lack of motivation and can limit the development of strategies that could make students more successful readers. An absence of motivation can have a spiraling and cyclical effect on struggling students. Students have difficulty reading and understanding advanced text and, as a result, lack the motivation to read (Boardman et al., 2008). Biancarosa and Snow (2006) listed motivation as one of the 15 critical elements of adolescent literacy. Based on a summary of research, Boardman et al. (2008) outlined four features that can bolster students’ motivation to read. These include: (a) providing content goals for reading, (b) allowing and supporting student autonomy, (c) using text interesting to the student, and (d) increasing social interactions related to reading.

The main difference between motivation as compared to the other elements of reading instruction is that motivation is not taught explicitly; teachers promote motivation based on what and how they teach and the interactions they promote with text (see Boardman et al., 2008, Kamil et al., 2008, and Torgesen et al., 2007 for details). Therefore, motivation should not be seen as a stand-alone component of effective reading instruction but as an integrated part of an effective adolescent literacy program. Brozo and Flynt (2008)

described six evidence-based principles for increasing motivation specifically in content-area classrooms. These include (a) elevating self-efficacy, (b) creating interest in new learning, (c) making an inside/outside literacy connection, (d) expanding choices and options, (e) offering an abundance of interesting texts, and (f) offering structured collaboration. With implementation of these six principles teachers can begin to create an engaging and motivating environment of learning for their students in content rich classes such as science and social studies.

Collaborative learning is a motivational method that allows students work in small groups to work out a problem or discuss a topic. All cooperative learning methods operate on the notion that students work together to learn the content and all are responsible for each other's learning (Slavin, 1996). The research supports the usefulness of collaborative learning at all grade levels because of increased student achievement as well as improved relationships and increased self-esteem (Slavin, 1996). The number of opportunities struggling students have to respond to text is increased when the students can collaborate with their peers. Similarly, when struggling students are grouped with successful classmates, their chance of success is greater (Boardman et al., 2008). Another important step in collaboration is the explicit teaching of how collaborative groups work—this is critical to the success of collaborative groups (Boardman et al., 2008). The *Reading Next* report (Biancarosa & Snow, 2006) lists text-based collaboration as one of the 15 essential elements of adolescent literacy instruction. Collaborative groups can be used across academic settings and across skill ranges. Collaborative groups can also be used to increase motivation thereby increasing understanding (Boardman et al., 2008).

Conclusion

A review of the research concerning content-area and narrative text reveals some critical instructional components of adolescent literacy achievement. Explicit instruction is key in teaching important skills and strategies in word study, vocabulary, comprehension, and fluency. Additionally, motivation must be an integral part of an effective adolescent literacy program. Educators have an enormous responsibility to create learning environments that are tailored to each student's needs and interests. It is required that the skills and strategies paramount to the enhancement of students' learning are applicable to authentic classroom scenarios where students will encounter challenging and unfamiliar content-area and narrative texts. Research

has given educators the tools they need to bolster their instructional practices and they need only to review such documents to greatly increase students' academic achievement. If educators responsibly and reliably follow the 15 essential elements of effective literacy programs (Biancarosa & Snow, 2006) as well as focus their attention on the five areas of effective adolescent literacy instruction (Boardman et al., 2008), student achievement is likely to rise.

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