

# Promoting Meaningful Adolescent Reading Instruction Through Integrated Literacy Circles

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## HIGHLIGHTS

- The reading model presented in this chapter proposes that proficient reading ability emerges as a reading system, mental system, a set of subject matter systems, and tools are acquired, coordinated, and enacted to accomplish increasingly complex reading tasks.
- Learning-to-read and reading-to-learn instruction should occur in the zone of proximal development.
- Activity in which students acquire and develop skill in coordinating and enacting reading knowledge with the assistance of others is a basic reading activity.
- Basic reading activity, such as a reading skill circle, or in the case of this chapter, the integrated literacy circle, is a way to organize the acquisition and development of skill in coordinating and enacting reading knowledge.

Assessments continue to report that an unacceptable percentage of adolescent students are unable to read, comprehend, critically analyze, and apply information obtained by reading text (Campbell, Hombo, & Mazzeo, 2000; Donahue, Daane, & Jin, 2005; Donahue, Voelkl, Campbell, & Mazzeo, 1999). Riddle and Valencia (2002)

recently reported that although students could decode passages written at their reading level they could not comprehend the passages. Analysis of their strengths and weaknesses showed a variety of skill deficiencies. It was possible to place students into categories, such as struggling word callers, slow comprehenders, and disabled readers. In other words, students in the same classrooms may appear to be similar in terms of test scores; however, their strengths and weaknesses will reveal distinctly different patterns of knowledge about reading and their ability to apply it.

In the future, adolescents will be expected to regularly perform tasks requiring accessing, reading, and critically analyzing information to make important personal, professional, and political decisions. Their world will be a virtual culture of instant access to information disseminated as textual genres, such as books, essays, reviews, position papers, stock market ticker tapes, financial and medical news, and text-scrawks on television and computer monitors. Proficient reading ability, or the lack of it, will determine the extent to which they will be central participants in a world that is informationalized, symbolically represented, and virtualized.

The primary purpose of this chapter is to propose an orientation for thinking about adolescent reading instruction that is derived from cultural–historical activity theory, or CHAT (see Cole, 1996; Cole & Engestrom, 1993). Based on CHAT, we are reconceptualizing the reading circle concept common to the elementary grades and introducing what we are calling the integrated literacy circle as a teacher–peer scaffolded discussion approach to help readers develop proficiency and skill in the content areas. In order to understand the orientation to thinking about adolescent reading instruction we are proposing, it is necessary to thoroughly examine its theoretical underpinnings in the seminal work of Vygotsky, Luria, and others. To that end, we begin with a discussion of traditional reading skill instruction. Then, we review selected principles of CHAT that we consider important to understanding proficient reading ability, followed by a CHAT model of proficient reading ability. Next, we discuss reading instruction and the development of reading skill, followed by an overview of basic reading activity, a conceptual tool for thinking about and arranging instruction that focuses on the acquisition and application of reading knowledge. Then we present a set of sample lessons for convening an integrated literacy circle. We end with comments on the transfer of reading knowledge and skill.

# Traditional Basic Reading Skill Instruction and Adolescent Reading Performance

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There are a number of explanations for why so many adolescents are unable to read, interpret, critically analyze, and understand text. The first explanation is that traditional basic reading skill instruction is grounded in earlier notions of mastery learning (Block & Airasian, 1971; Carroll, 1963), basal reading program management systems (Johnson & Pearson, 1975), and compendia of reading skills that are indexed to instruction, such as the Wisconsin Design for Reading Skill Development (Otto, 1977). The names of reading tasks, such as reading to determine the main idea of a text, became tagged as basic reading skills by publishers and teachers and created a serious misunderstanding. Reading to determine the main idea of a text is a basic reading task, not a basic reading skill. The completion of a basic reading task requires a student to possess skill to coordinate and enact reading knowledge. Students should acquire reading knowledge and the skill to coordinate it through engagement and participation in a basic reading activity, not decontextualized drill and practice.

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Nonetheless, the notion emerged that proficient reading ability consists of a set of discrete basic reading skills that can be (a) isolated and extracted from their enactment in reading activity, (b) broken down into subcomponents, (c) organized into a valid scope and sequence, and (d) easily measured and assessed to determine level of mastery and to make decisions about review, practice, reteaching, and enrichment. Over time, classroom reading instruction began to increase the emphasis on decontextualized scripted instruction and drill and practice, while deemphasizing meaningful instruction that focuses on the enactment and coordination of reading knowledge to accomplish authentic reading tasks (Wenglinsky, 2000).

Second, the traditional approach to basic reading skill instruction continues to be sustained by administrative decision making and classroom practice, through the discourse of scientifically based reading research, No Child Left Behind, standards driven curriculum, statewide testing, and the public posting of graded school performance that is based on students' performance on high-stakes tests. As a result, a clerical approach to classroom reading instruction has emerged. Many teachers have acquired the identity of instructional clerks who view reading instruction as clerking—simply checking off reading skills as they are presented with scripted instruction to students who practice

them in workbooks and other activities. Although quantitative increases in levels of reading achievement may seem to be increasing as a result of this kind of instruction, it is doubtful that significant qualitative changes in levels of literacy are being attained.

Third, basal reading programs built on the traditional skill approach continue to be the tool of choice for elementary school reading instruction. Examination of selected basal reading programs reveal that over half of their pages are allocated to narrative text, followed by approximately one-third to information text, and scant space to drama and poetry. As a result of their elementary school instructional experiences, many adolescent students come to the middle and high school classroom with insufficient opportunities to acquire, coordinate, and enact reading knowledge to accomplish reading tasks in a variety of text genres (Duke, 2000; Miller & Blumenfeld, 1993; Pilonieta, 2006).

The amount and quality of information provided in instructional manuals for teachers is another explanation. There seems to be a fuzzy continuum for helping students make the gradual transition from teacher-directed explanation, modeling, assisted practice, and enactment of reading knowledge to student-directed coordination and enactment to accomplish increasingly complex reading tasks. Basal reading manuals do not appear to offer teachers sufficient information to provide students with the quality of instruction expected by many reading professionals. Analyses of manuals and student materials continue to reveal that some reading skills are practiced but rarely introduced, introduced but rarely practiced, practiced immediately after they are introduced, practiced months later, or never practiced (Miller & Blumenfeld, 1993; Pilonieta, 2006).

The assessment provided by most basal reading programs is generally limited to lower-level cognitive tasks that require brief responses, such as circle, underline, draw a line, fill in the blank, or write a few sentences. There appears to be very little cognitive clarity in instruction on the acquisition, coordination, and enactment of reading knowledge that many students receive prior to entering upper grade levels. Very few assessment tasks focus on whether or not students have developed skill to successfully coordinate and enact reading knowledge to understand a variety of text genres. Therefore it is not surprising that the traditional reading skill instruction many students receive in elementary school may be insufficient for the shift students must make from learning to read in earlier grade levels to reading to learn in upper grade levels.

Last is the persistent belief that the proper remediation for students who experience difficulty acquiring proficient reading ability is repeated exposure to the same kind of decontextualized drill and practice contributing to their failure. Corrective reading instruction available to adolescent struggling readers is often organized as pull-out programs. Pull-out programs remove students from subject matter instruction. Consequently, students are left to participate at the periphery of instruction that focuses on reading to learn in a variety of text genres. We maintain that corrective reading instruction can be done in the classroom, by the classroom teacher, and using actual subject area material. However, it is essential that the classroom activity be organized in a way that promotes meaningful, social interaction. That is where an understanding of cultural–historical activity theory comes into play.

## A Cultural–Historical Activity Theory Approach

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In this section, we present four claims drawn from cultural–historical activity theory (CHAT) that are important to understanding the acquisition of proficient reading ability. Based on the theoretical insights of Lev Vygotsky (1934/1978), Alexander Luria (1932, 1973), A.N. Leont'ev (1981) and their students, CHAT refers to a family of theories that include socio-cultural studies (Wertsch, 1985), distributed cognition (Resnick, Levine, & Teasley, 1991), communities of learners (Brown & Campione, 1998; Rogoff, 2003), activity theory (Engestrom, Miettinen, & Punamaki, 1999), and communities of practice (Lave & Wenger, 1991; Wenger, 1998). The focus of these theories is on how the organization of activity, including the focus of the activity, roles of participants, distribution of labor, rules and procedures, community, and instrumental and mental tools, all play a role in attaining outcomes.

The theoretical platform on which CHAT stands is that thinking is the product of the interaction among biology, culture, history, and participation in practical activity. Children begin life with a biological inheritance limited to a set of elementary mental functions, such as attention, perception, and simple memory. Adults are responsible for arranging the environment so that children acquire the cultural legacy of their forbearers and the knowledge, insight, and skill necessary to become members of their culture. Participation in everyday activities results in the acquisition of language, cultural practices, categories of thinking, general word meaning,

and world knowledge (see Cole, Gay, Glick, & Sharp, 1971; Rogoff, 2003; Scribner & Cole, 1981; Tulviste, 1991). Through participation in organized educational activities, they acquire domain-specific knowledge, technical word meanings, metacognition, and the cultural form of literacy.

The first claim of CHAT is that complex systems, such as thinking, reading, writing, and subject matter systems are not stand-alone functions. Rather, they are continuously changing intercoordinated systems of knowledge and skill that emerge and unfold as one participates in culturally mediated activity (Luria, 1932, 1973). Through participation in learning activities, elementary functions that first operated independently are restructured to work together and perform more complex tasks (Vygotsky, 1987).

The next claim is that the development of complex systems, such as human thinking and reading ability, are culturally mediated. Humans cannot interact directly with their environment. Rather they interact indirectly with it by mediating their activity with both tangible and psychological tools (Vygotsky, 1934/1978). Culture enters into learning and development in that tools are artifacts produced by previous human activity and carry the cultural code for their use (Cole, 1996). For example, the invention and use of the printing press prompted changes in thinking about how to represent human knowledge, a need for instruction in writing and reading, the reorganization of the division of labor for printing and distributing text, and a need for copyright laws. Similar effects are currently being observed with computers, optic fiber, the Internet, search engines, and global conferencing platforms (see Friedman, 2005). The insertion of tools into activity can shape thinking and bring about new functions connected with their use (Vygotsky, 1981). Humans have been making tools directly available to future generations through organized education and discovery (Tomasello, 1999).

The third claim is that children develop their thinking processes and the ability to regulate themselves and others from the outside. Through the process of internalization, thinking processes come to reside on the inside (Vygotsky, 1934/1978, 1987).

Internalization does not mean making an exact copy of the outside world and placing it inside one's head. Internalization is a process that reconstructs systems, such as thinking, reading, and subject matter (Leont'ev, 1981; Wertsch, 1991, 1985). As the language mediating social activity is internalized, it is edited into a set of inner languages (Radzikhovskii, 1991). One language is a meta-language for self-regulation and the direction of

personal thought. The other coordinates communication within and among systems, such as mental functions, reading, and writing.

The fourth claim of CHAT is that the zone of proximal development (ZPD) explains how social structures are internalized from the outside to the inside, which results in the reconstruction of systems, such as thinking, reading, and mathematics. The ZPD is

the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (Vygotsky, 1934/1978, p. 86)

A ZPD is not a thing located inside the heads of children. It is the social organization for learning that occurs when children participate in activity that is motivated by and organized around their interests and goals. Children work together with adults and more accomplished peers in pairs or groups and share responsibility for accomplishing tasks leading to accomplishment of a goal. The goal to be attained is just beyond their current ability and requires the support of others to be attained. To optimize learning, guided assistance is provided, as needed, but only as much as needed, to do tasks leading to the accomplishment of the goal. Each and every participant learns from the mutual contributions of the other participants (Chaiklin, 2003; Newman, Griffin, & Cole, 1989; Wells, 1999).

A significant outcome of participation in a ZPD is learning to focus, or direct, one's attention. When left to direct their own activity, children generally attend to and interpret what they think is important. In organized activity, others (such as teachers in educational settings) may direct their attention. As participants externalize their thinking processes through language, gesture, diagrams, and other tools, implicit processes are made explicit. This lets participants "see" how the pieces of a task and its accomplishment fit together as a meaningful whole that represents a model of their future performance. Next we will see how the principles of CHAT align with proficient reading and ultimately lead to our integrated literacy circle concept described later.

## A Cultural–Historical Model of Proficient Reading

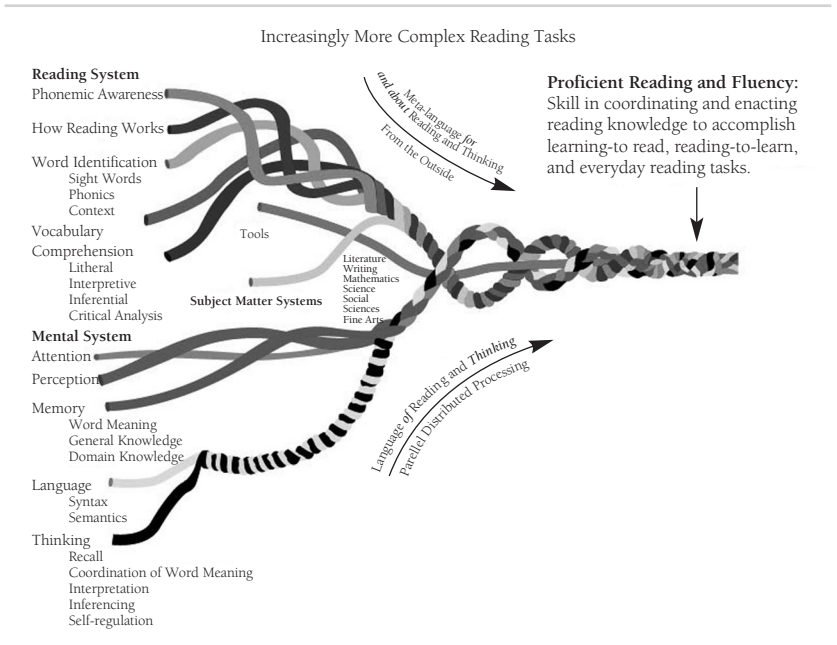
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Even before participating in formal reading instruction, children can observe, interpret, and think about the world around them. This provides a

foundation for the acquisition of reading ability (Donaldson, 1978). Once formal reading instruction begins, children start the long journey to proficient reading so that they can accomplish increasingly complex reading tasks. These tasks include discriminating letters, learning about letter-sound correspondence, blending sounds to identify words, and retrieving the meanings to which the words refer to generate an interpretation and understanding of text about people, things, and events in their environment.

Figure 12.1 presents a model of proficient reading. This model proposes that there are three main systems that operate simultaneously in proficient reading. Beginning at the top, the reading system is a set of intercoordinated strands composed of phonemic awareness, word identification, word meaning (vocabulary), comprehension, and the knowledge of how reading works—the ability to regulate all of the previously mentioned strands to achieve meaning while reading (Adams, 1990; Crowder & Wagner, 1992; National Institute of Child Health and Human Development, 2000; Scarborough, 2001; Snow, Griffin, & Burns, 2005). Next, the mental system includes the attention, perception, memory, language, and thinking strands. Third are the subject matter systems.

Figure 12.1. A Model of Proficient Reading





These are composed of discipline knowledge generally thought of as subject matter that students are expected to acquire. Tools—such as discourse, books, teacher manuals, lesson plans, tests, grouping patterns, and computers—are used to conduct, or mediate, learning activities.

By participating in reading instruction and engaging in reading, these systems begin to work in unison. However, these systems are not static. They are continuously reorganized as necessary. Some knowledge disappears and new knowledge emerges, allowing students to perform increasingly more complex reading tasks, such as reading to learn from multimedia and the generation of interpretation, critical analysis, and understanding of text.

The language of reading and thinking, a form of the internalized social language, has two main functions. The first is coordination of communication within and among the reading, mental, and subject matter systems. The second function is turning experience into word meanings that are stored in memory.

Experiences are represented in memory as a network of coded relations among meanings and words that are retrieved, sampled, and integrated with the reader's world knowledge and domain knowledge to generate an interpretation and understanding of text. As an illustration, in reading the word *dog* a reader might identify it as a sight word or by coordinating knowledge of rules to decode letters and blending the sounds to spoken language representing the word. The interpretation of *dog* is limited by the experiences of the reader and the number of meanings indexed to *dog* that the reader has stored in memory. The pool of meanings may include the dog that bit me; a mongrel; Rex, my pet dog; canine; Mark Antony's angry cry in *Julius Caesar*, "Cry Havaoc and let slip the dogs of war!"; the slang term *dawg* as in "What's up dawg?" which is used to refer to a friend; or General George Patton's bull terrier, William the Conqueror. The coordination of these meanings mediates the generation of an interpretation and understanding of *dog*. Additional contexts might limit the number of meanings to coordinate or point to additional meanings. Words and the meanings to which they refer also link to other words, sentences, phrases, and longer text, and create expanded networks that create an infinite pool of meanings available for a reader to draw from and coordinate.

Parallel distributed processing (PDP) is a seemingly endless network of neurons that activate and deactivate in infinite combinations (McClelland, 1989; Plaut & McClelland, 1993; Rumelhart & McClelland, 1982). During engagement in reading activity, PDP coordinates the in-

terplay within and among the reading, mental, and subject matter systems to accomplish top-down (reader-based) and bottom-up (text-based) reading processes (Rumelhart, 1994; Stanovich, 1980). The meanings words refer to are simultaneously retrieved from memory, coordinated across sentences and longer text, and integrated with world knowledge to confirm the interpretation of the text (Hagoort, Hald, Bastiaansen, & Petersson, 2004).

In terms of classroom practice, vocabulary is understood as words that refer to the meanings given to experiences, objects, events, concepts, emotional states, and procedures. Access to a large store of word meanings makes it possible for the reader to construct subtle differences of interpretation and understanding of text. Participation in discussion extends the interpretation, critical analysis, and understanding of the text and makes additional word meanings available to coordinate the continuous construction of other interpretations and understandings. Eventually, a public interpretation and understanding of the text may be negotiated with others and the readers may integrate this interpretation and understanding with their prior knowledge.

## Reading Instruction and the Development of Reading Skill

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Thus far we have discussed some of the problems with traditional reading instruction, a CHAT approach to the acquisition of proficient reading, and a reading model based on key principles of CHAT. Now we turn to reading instruction. Social interactions and attention to that interaction make the reading knowledge, thinking processes, and meaning-making resources that occur implicitly during a reading lesson explicit to students. The externalization of the thinking processes and reading knowledge used by each student affect the thinking process of the reading group. In turn, every member of the group internalizes the group's thinking processes and knowledge about reading. The role of students is to participate in the group's discussion of the reading knowledge and tools used, synthesize the contributions of others, and integrate the results with their prior knowledge. It is with this premise in mind that we now present some principles for effective reading instruction.

To become proficient readers, students must acquire and develop skill in coordinating a reading system comprising declarative, procedural, and conditional knowledge of reading. Declarative knowledge

(knowing what) represents knowing the tasks related to phonemic awareness, word identification, and vocabulary that are performed to construct the interpretation, understanding, and critical analysis of text. Procedural knowledge (knowing how) is composed of the steps involved in coordinating and enacting reading knowledge to perform the tasks. Conditional knowledge (knowing when and why) reflects an understanding of particular situations, text genres, problems, goals, and reading tasks that cue the need to coordinate and enact certain reading knowledge to accomplish particular reading tasks. Reading skill is demonstrated when a student can independently coordinate and enact the actions needed to apply declarative, procedural, and conditional knowledge to successfully perform reading tasks during learning-to-read, reading-to-learn, and personal reading activity.

The acquisition of proficient reading ability requires that students receive sufficient opportunity to (a) participate in systematic instruction aimed at assisting them with the acquisition of knowledge constituting a robust reading system, (b) receive assisted practice in developing skill in coordinating the knowledge comprising their reading system with other systems and tools used to accomplish increasingly complex reading tasks, (c) participate in reading-to-learn instruction that focuses on coordinating and enacting reading knowledge and tools to accomplish tasks, such as reading-to-learn subject matter presented through textbooks and other media (d) participate in substantial discussions of the interpretation, critical analysis, and understanding of material read, synthesize those discussions, and integrate the results with their world knowledge and domain knowledge, and (e) receive the long-term assistance necessary for the gradual transition from teacher-directed reading activity to student-directed reading activity.

Reading knowledge and coordinating skill to enact it to accomplish reading tasks cannot be told to or handed over to students. The role of instruction is to arrange for student participation in learning activities that facilitate the acquisition, reorganization, and intercoordination of their reading, mental, and subject matter systems to accomplish increasingly more complex learning-to-read and reading-to-learn tasks.

In Vygotsky's (1926/1999) words,

Though the teacher is powerless to produce immediate effects in the student, he is all-powerful when it comes to producing direct effects in him through the social environment. The social environment is the true lever of the educational process, and the teacher's overall role re-

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duces to adjusting this lever.... Thus, it is that the teacher who educates the student by varying the environment.... (p. 49)

Proficient reading ability is an outcome of the acquisition, coordination, and enactment of reading knowledge and thinking processes that are located in the social interactions of students when they participate in reading lessons and discussions. Students internalize the structure of a teacher's lesson plan, the language mediating how reading knowledge and tools are used, and the thinking processes of the reading group. Over time, the organization of reading lessons—or lack of it—is reflected in the extent to which students acquire and develop skill in coordinating their reading system with other systems to accomplish reading tasks and to regulate their participation in future reading instruction, reading-to-learn activity, and personal reading activity.

In essence, an effective reading lesson is a ZPD that is co-constructed by a teacher and students to acquire knowledge of a reading system and develop skill in coordinating that knowledge with other systems to accomplish reading tasks. It is important that the teacher is able to identify reading tasks that are just beyond students' current level of independent performance but capable of being completed with the guided assistance of others, or a true conceptual understanding will not occur.

Intervening during instruction is a major instructional decision. Teachers must be attuned to their students' strengths and weaknesses in order to anticipate patterns of behavior indicating that a task is too difficult. They must decide when to intervene and how much assistance to provide. If intervention is too soon, students may become dependent on the teacher. If intervention is too late, students may be overwhelmed by the level of difficulty of the task set for the reading lesson.

Even adolescents who have failed to acquire proficient reading ability in school regularly participate in activities they mediate with a multiplicity of tools, such as print, personal computers, advertisements, magazines, newspapers, comic books, interactive gaming, catalogues, cell phones, and instant messaging. As a result of participation in activities of this kind, many students acquire enough basic reading knowledge and skill to coordinate and enact it to read, interpret, and understand technical manuals, websites, teen magazines, and other special publications related to their interests (Moore & Hinchman, 2006). They acquire reading knowledge and skill to coordinate it to achieve personal goals, with the assistance of their peers. We have come

to think of activities of this kind as basic reading activity (Griffin & Cole, 1987). With this notion that reading proficiency develops through peer interaction and meaningful activity, we introduce the integrated literacy circle, a discussion-based approach to teaching and learning content area concepts while acquiring basic reading skills.

## Integrated Literacy Circle

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With a little imagination, traditional drill and practice of the skills needed for proficient reading can be repurposed as basic reading activity, through an integrated literacy circle. This concept is similar to the reading circles seen in many elementary classrooms in that students are assigned to groups for an instructional purpose. When applied to the middle- or secondary-level classroom, the circle concept provides a means for students to discuss the content under study while simultaneously learning how to apply a needed literacy skill. An integrated literacy circle is a way to organize the acquisition, coordination, and enactment of reading knowledge in authentic reading activity.

In this way, the integrated literacy circle provides a vehicle for teacher scaffolding of the concepts to be learned while enabling peer groups to co-construct the information through discussion. This process of co-constructing knowledge enables students to reach toward and function in their zone of proximal development. Typically, a teacher and eight or so students form a reading skill circle. The teacher provides an explanation of a particular reading task and the reading knowledge to be used, and then models and thinks aloud when and how the knowledge is used to accomplish the task. Students are assigned a reading task to complete with the assistance of the teacher, followed by a discussion of the results. The text selected can be short or long, so long as it is of interest to students and can stimulate meaningful discussion. Students are encouraged to recruit help from the teacher and others when necessary. Students are then assigned additional material to read with the purpose of coordinating and applying the knowledge to accomplish the task independently. Instruction on the task culminates with the teacher coordinating a discussion of how the knowledge “worked,” how to conduct the activity better next time, and how it might be used inside and outside school.

Through discussion, students are able to interact with each other about the task and reading knowledge they used; difficult words they needed to identify; word meanings, concepts, ideas, and content that were

challenging or unclear; and their interpretation and understanding of the text. However, the focus of the discussion typically remains among the students, with the teacher monitoring from the background. In this way, reading lessons can be more meaningful and increase the likelihood that students will transfer their reading knowledge to other reading tasks.

There are seven phases of instruction in a reading skill circle: exploration, explication, translation, modeling, guided practice, application, and closure. During the exploration phase, teachers probe students' prior knowledge about a reading task to be performed. In the explication phase, the teacher explains declarative knowledge (what the task is), procedural knowledge (how the task is completed and with what knowledge), and conditional knowledge (when the knowledge can be applied and why). This is also the phase in which students take their first steps toward internalizing the meta-language of the lesson. During the translation phase students are asked to explain the task in their own words. This gives teachers an opportunity to judge how well students are interpreting and understanding the meta-language for enacting the knowledge for completing the task. The next phase requires the teacher to model how the knowledge is coordinated to complete the task. This process makes implicit thinking processes and meaning-making resources of the lesson explicit. In the guided practice phase, students work with partners or small ensembles to coordinate and enact the knowledge to accomplish the reading task. The externalization of the thinking processes of each student affects the thinking process of the group. In turn, every member of the group internalizes the thinking processes of the reading group, resulting in the transformation of their thinking processes and reading system. Afterward, students are asked to apply and enact the knowledge to independently accomplish the task in similar material. Finally, during the closure phase, students summarize what they have learned about performing the target task. The role of students is to attend to and participate in the discussion about the knowledge they used, their understanding of how it was used, synthesize the contributions of others, and revise their understanding of the task and how they might perform it better next time.

In Figures 12.2 and 12.3, we provide sample lessons that demonstrate basic reading instruction through integrated literacy circles. In Figure 12.2, the lesson focuses on text structure and sequence. In Figure 12.3, the major focus is on the understanding of context clues. Although the integrated literacy circle can be conducted with narrative texts, these examples use information texts, thereby maximizing opportunities for

## Figure 12.2. Integrated Literacy Circle: Sequence and Text Structure

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### PHASES

#### Exploration

The purpose of our lesson today is to learn about a text structure called sequence. Text structure is the way an author organizes the ideas in his writing. Who can tell me what we mean by sequence? Why is it important to understand the sequence of events? What are some hints that authors give to help you follow the sequence of events?

#### Explication

*Declarative knowledge.* The sequence text structure is the way an author writes information to show you the order in which things happen. The authors can show you the order of things in explicit and implicit ways. Sometimes they separate the steps into short paragraphs. At the beginning of each paragraph they will put a number to show which idea comes first. This is an explicit, or clear way (look for an example in *Cell to System*, p. 12). Other times the author has statements and matching pictures in the order in which they happen. This is more implicit (look for an example in *Cell to System*, p. 15). Another way, one of the more difficult and most implicit ways, is when the author just writes all of the steps in a paragraph (look for an example in *Meet the Beetles*, p. 7). When authors do this, it is important to look for keywords—such as first, then, next, after—to figure out the order of the steps.

*Procedural knowledge.* The first thing you need to do to find the text structure is look at the section you are reading. Are there numbers to indicate sequence? If not, check to see if there are paragraphs with corresponding pictures. Do the pictures seem to go in order? Read the paragraphs and look for keywords (first, then, next, after, ordinal numbers). If the information is written as one big paragraph, you are going to have to read it and look for the keywords. It might be helpful to write down numbers, starting with one, over each keyword to help you better follow the order.

*Conditional Knowledge.* Understanding the order of events and recognizing the sequence in text are important for several reasons. First, it will help you understand how a process works or occurs. It will also help you to perform the task. Knowing about sequence text structure can help you when you're following directions for a science experiment or recipe. It can also help you understand how events occurred in your social studies textbooks. Using these keywords in your writing can also help you organize your ideas more clearly.

#### Translation

Using your own words, who can tell me what the sequence text structure is? How do you figure out if a text is organized in sequential order? If it's in one big paragraph, what can you do to help? When do you think it might be important to understand the sequence of something?

#### Modeling

Let's start with an easy example. What did you do to get ready for class today after the bell rang? To figure out the answer, let's think about what we did first. You

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## Figure 12.2. Integrated Literacy Circle: Sequence and Text Structure (continued)

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probably came in, sat down, and put your backpack on the floor. Then you took out your folder, and finally your pencil. What keywords did we use?

Let's look at another example (*Searching for Lost Tombs*, 2006, p. 17). Look at page 17 where they show you how to make a mummy. The first thing I notice is the short paragraphs with numbers next to them. The numbers must tell me what happens first when you make a mummy. Now let me read the paragraphs, paying special attention to the keywords. What keywords do you notice?

### Guided Practice

Read the experiment described on page 7 (*Meet the Beetles*, 2006). Work in pairs to figure out if the text structure is implicit or explicit. Work together to look for keywords that indicate order. Write a short summary describing the steps in the experiment.

Once all of the pairs are done with their summaries, they can share the keywords and summaries with the class. The teacher can then assign another passage so that students can highlight the keywords and summarize the information independently.

### Application

We have been talking about the sequence text structure these past few days. Today I want you to apply this strategy as we read our social studies lesson. As you read, I want you to make a note of the keywords that indicate order. Think about how these words help you understand what is happening. Afterward, we will discuss the order of events together.

During the next week, I want you to find two examples of text written in sequence from either magazines or newspapers.

### Closure

Last week you were asked to collect two examples of text written in sequence. Working in pairs, share your examples with your partner. Explain why you believe they are examples of the sequence text structure, and briefly describe the information.

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## Figure 12.3. Integrated Literacy Circle: Context Clues

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### PHASES

#### Exploration

The purpose of our lesson today is to learn different ways to find the meaning of an unknown word. What are some things you can do to figure out what a word means? Do you need to know the meaning of every single word you read to understand the passage? How do you know which words you definitely need to understand in your textbooks (they tend to be bold or highlighted)?

#### Explication

*Declarative knowledge.* Vocabulary words are words you need to know to understand the passage you are reading. Vocabulary words are usually written in bold print or  
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## Figure 12.3. Integrated Literacy Circle: Context Clues (Continued)

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are highlighted in textbooks. To find the meaning of vocabulary words you can do a structural analysis of the word, look for context clues, or look at the glossary or dictionary. To do a structural analysis you need to look for prefixes, suffixes, or familiar parts of words. Context clues can be found in the sentence where the vocabulary word is in or the sentence before or after. Most textbooks have a glossary, but if it doesn't you can use a dictionary to find the meaning of the word.

*Procedural knowledge.* The first thing you should do when you come across a word you don't know is do a structural analysis. That means look to see if there are clues inside the word. The clues can be prefixes or suffixes you know, or parts of words you recognize from other words. For example, look at the word *chloroplast* (*Cells to System*, p. 6). I don't really know what *chloroplast* means, but I remember the word *chlorophyll* has something to do with plants. So maybe *chloroplast* does too. Not all words have clues inside them; there is nothing inside the word *larvae* (*Meet the Beetles*, p. 4) to help you figure out its meaning.

The next thing to look for is context clues. Context clues are clues that help you figure out what a word means. They are usually found in the sentence where the unknown vocabulary word is, in the sentence before, or in the sentence after. Look at this example, "the beetle's 'weapon factory' is made up of two *glands*, or small organs, inside its body," (*Meet the Beetles*, p. 26). From the sentence you can tell that a *gland* is a small organ inside the beetle's body.

However, not all words have context clues to help you figure them out. Look at this example, "they are part of a foolproof system that lets the *Melanophila* beetle *detect* a fire from many miles away," (*Meet the Beetles*, p. 20). The sentence doesn't give you a lot of help; neither did the sentence before or after. The next thing you can do is use the glossary at the back of the book. A glossary is like a dictionary. If your book doesn't have a glossary, you can use a dictionary. When I look up the word *detect* in the glossary, it says, "notice or sense something" (*Meet the Beetles*, p. 31). So that means that the *Melanophila* beetle can sense fire from far away.

*Conditional Knowledge.* Knowing how to find the meaning of an unknown vocabulary word can help you become an independent learner. By following the three steps—using structural analysis, using context clues, or using a glossary or dictionary—you will be able to find the meaning of almost every word. You can use these three steps in any class, with any textbook, to help you find the meaning of unknown vocabulary words.

### Translation

Using your own words, who can tell me how you know what the vocabulary words in your textbook are? How do you figure out what a vocabulary word means? How do you do a structural analysis? How do you use context clues? When do you use a glossary? When do you use a dictionary? When should you use these three steps?

### Modeling

Let's start with an easy example. "It's made of the same hard material as a beetle's *exoskeleton*, or outer skin" (*Meet the Beetles*, p. 21). First let's do a structural analysis:

(Continue)

## Figure 12.3. Integrated Literacy Circle: Context Clues (Continued)

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*ex* in *exoskeleton* usually means out. So maybe an *exoskeleton* is a skeleton that is outside of the body. Now let's look at context clues. The sentence indicates that an *exoskeleton* is outer skin, and that it's made out of hard material. When I look at the glossary, it says that an *exoskeleton* is "the hard outer shell or skin of an insect and some other animals," (*Meet the Beetles*, p. 31). Mmm, that means that insects and other animals have *exoskeletons*.

Let's try another example:

The team started *excavating* the tomb later that year. It was hard, hot work. They used pickaxes to pound rocks. They used shovels and hoes to remove dirt. As they dug, they discovered that the tomb had been partially destroyed. (*Searching for Lost Tombs*, p.10)

First we'll do a structural analysis of the word *excavating*. Again, the *ex* in *excavating* probably has to do with out. But I still don't know what the word means. Let me look for some context clues. People are using pickaxes, shovels, and hoes to remove dirt. Maybe *excavating* means to take out dirt, or to dig. Let me continue reading. "As they dug...." They are digging! Let me just check the glossary to make sure I'm right. It says, *excavate* means "dig up" (*Meet the Beetles*, p. 31).

### Guided Practice

Read the section on New Arrivals (*Come to Florida!*, p. 14). Work in a small group to do a structural analysis of the three vocabulary words. Then jot down the context clues for each word. Finally, look at the glossary and see if you were able to figure out the meaning of the words just from the context clues and the structural analysis.

Once all of the groups are done finding the meaning of the three vocabulary words, they can share their work with the rest of the class. The teacher can then assign another passage where students highlight the context clues and define the words independently.

### Application

We have been talking about how to find the meaning of unknown vocabulary words. Today I want you to apply this strategy as we read our social studies lesson. As you read, I want you to make a note of the structural analysis of the vocabulary words. Then use the context clues to help you find the meaning of the word. Use the glossary if you still don't know what the word means. Think about how doing these steps helps you understand what is happening. Afterward, we will discuss the definitions of the words together.

During the next week, I want you to find three examples of vocabulary words from another class. Write down how the structural analysis helped you (if it did), write down the context clues, and then verify with the glossary to see if you were right.

### Closure

Last week you were asked to find the meaning of three vocabulary words from other classes. Working in pairs, share your definitions, structural analysis, and context clues with your partner. Explain how you developed your definition.

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students to acquire reading knowledge while learning subject matter. These lessons assume that students are being introduced to the particular reading task and related knowledge for the first time and are conducted over a couple of weeks.

Several texts were used for these lessons. The first text, *Cells to Systems* (Stewart, 2003), presents information about cells, DNA, cellular systems, and the relation of cells to the continuation of life. Next, *Meet the Beetles* (Stewart, 2006), explores the features and habits of arthropods, their anatomy, how they adapt to their environment, and the potential of arthropods to improve human lives. The third, *Searching for Lost Tombs* (Granahan, 2006), introduces students to archaeological investigation and the artifacts of early Egyptian and Chinese civilizations. The last, *Come to Florida!* (Vierow, 2005), discusses the diverse groups of people who come to Florida, the relation between modes of transportation and population increase, and interesting places, activities, and living styles that attract people to the state of Florida.

Simply being able to identify words and derive their meanings will not reveal the interpretation hidden in a text. As students participate in reading instruction, they need to coordinate and enact the knowledge they are acquiring in authentic reading activity. They need to think about, discuss, and argue the facts, interpretation, ideas, and understandings that can be derived from the text (Anderson et al., 2001).

Discussion is the primary way that reading knowledge, meanings, concepts, interpretations, and understandings are passed around and learned. The richer the discussion, the greater the likelihood that subject matter will be understood, integrated with prior knowledge, recalled, and applied in the future (Guthrie, Anderson, Alao, & Rinehart, 1999; Rivard & Straw, 2000).

Thus an important feature of the sample lessons is their use of discussion. Discussion occurs during each phase of a reading skill circle with the teacher providing a model and then releasing the concept to the students with scaffolding. During the explication phase of each sample lesson the teacher introduces the meta-language to be used, through explicit modeling and thinking aloud, to enact and coordinate the necessary reading knowledge in order to accomplish the reading task. Over time, students internalize the meta-language of the teacher and use it to mediate their participation in discussions of reading tasks, reading knowledge used, how it was enacted, and its application to other reading tasks.

It is imperative that students master the academic discourse and technical vocabulary of subject matter disciplines, such as earth science,

biology, physics, law, literature, and literary criticism. The understanding of subject matter is significantly enhanced through public discussion of the meanings of technical vocabulary, symbols, graphs, text structure, and other tools that specialized disciplines use. A plethora of research supports providing students with rich experiences with the technical vocabulary of subject matter areas to improve the interpretation, critical analysis, and understanding of text (Davis, 1983; Nagy, 1988).

Technical words do not frequently appear in the narrative texts that students encounter during reading instruction in earlier grade levels. However, technical vocabulary is common in information texts at upper grade levels, and it is critical to the understanding of the text. A teacher must take special care to draw students' attention to the technical vocabulary in information texts that refers to similar meanings and processes they acquired in earlier instruction focusing on narrative texts. The words *evidence*, *hypothesize*, and *record* encountered in science texts and the words *clue*, *predict*, and *write down* encountered in narrative texts point to similar meanings.

## The Transfer of Reading Knowledge and Skill

The limited transfer of reading knowledge and coordinating skill to reading tasks beyond classroom instruction continues to pose problems for researchers and teachers (Beach, 1999; Bransford, Brown, & Cocking, 1999; Bransford & Schwartz, 1999; Singley & Anderson, 1989). Reading knowledge generally transfers to similar reading tasks and conditions, such as the next reading unit or the same text genre. However, it does not seem to easily transfer to significantly different reading tasks, text genres, and conditions.

The acquisition and transfer of reading knowledge and coordinating skill does not effortlessly emerge fully developed. Rather it develops incrementally, as the result of participation in well-organized reading instruction that provides explicit explanation, guided and independent practice, and the coordination and enactment of reading knowledge in authentic reading activity. When students participate in disorganized reading instruction, receive insufficient explanation, modeling, and social support, they acquire a fragmented and incomplete reading system. Consequently the transfer and application of the target knowledge is limited.

Skill in coordinating basic reading knowledge to accomplish basic reading tasks has two levels. The first is the independent level of skill performance. At this level, a student has achieved the ability to coordi-

nate and enact particular declarative, procedural, and conditional knowledge to independently accomplish a particular reading task. The second is the assisted level of skill performance. At this level, a student can be expected to gradually acquire, coordinate, and enact particular declarative, procedural, and conditional knowledge to accomplish a particular reading task, with the explicit instruction of a teacher and the guided assistance provided by a teacher or accomplished others. Although a student may reach the independent level of performance, a change in conditions, such as reading an unfamiliar genre or engaging in a more complex text, may cause a student to drop back a level and require assistance. When this occurs, it is important to give the student as much assistance as needed, but only as much as needed.

Understandably, when new reading knowledge is initially used to perform a task, students require frequent opportunities to coordinate and enact that knowledge to accomplish the task, with the support of the teacher or others. To be sustained and transferred, the new knowledge must be coordinated and enacted with similar tasks and discussed repeatedly over a long period of time. The more opportunity students have to coordinate and enact new knowledge in different reading activities and to engage in reflective conversations about the outcomes, the more likely they will be able transfer it to new tasks and contexts.

## Summary

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In this chapter, we discussed the problems we consider important to the acquisition of proficient reading ability. We also discussed a set of principles derived from CHAT to develop a model of proficient reading ability. Then we offered basic reading activity as an alternative approach to traditional basic reading skill instruction and presented this concept through a set of model lessons we termed the integrated literacy circle. We ended with some comments about the transfer of basic reading knowledge and coordinating skill to accomplish basic reading tasks.

## Discussion Questions

1. Based on your own experiences as a teacher, why do you believe many adolescents are struggling readers?
2. Given your experience as a classroom teacher, what seem to be the main differences between students who experience success in reading to learn from text and students who experience difficulty?

3. How does the model of proficient reading ability presented in this chapter differ from models of reading you have studied?
4. How does an integrated literacy circle differ from the skill lesson you normally teach?
5. What do you see as the advantages and disadvantages of using an integrated literacy circle? How can the disadvantages be overcome? Explain how you could adapt this concept to your classroom.

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## REFERENCES

- Adams, M.J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Anderson, R.C., Nguyen-Jahiel, K., McNurlen, B., Archodidou, A., Kim, S., Reznitskaya, A., et al. (2001). The snowball phenomenon: Spread of ways of talking and ways of thinking across groups of children. *Cognition and Instruction*, 19(1), 1–46.
- Beach, K. (1999). Consequential transitions: A socio-cultural expedition beyond transfer in education. In G.P. Baxter, A. Iran-Nejad, & P.D. Pearson (Eds.), *Review of research in education* (Vol. 24, pp. 101–140). Washington, DC: American Educational Research Association.
- [\*AU: Changed from Bloom, which is a chapter by a different title, OK?\*) Block, J.H., & Airasian, P.W. (Eds.). (1971). *Mastery learning: Theory and practice*. New York: Holt, Rinehart, & Winston.

- Bransford, J.D., Brown, A.L., & Cocking, R.R. (Eds.) (1999). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academy Press.
- Bransford, J.D., & Schwartz, D.L. (1999). Rethinking transfer: A simple proposal with multiple implications. In G.P. Baxter, A. Iran-Nejad, & P.D. Pearson (Eds.), *Review of research in education* (Vol. 24, pp. 61–100). Washington, DC: American Research Association.
- Brown, A.L., & Campione, J.C. (1998). Designing a community of young learners: Theoretical and practical lessons. In N.M. Lambert & B.L. McCombs (Eds.), *How students learn: Reforming schools through learner-centered education* (pp. 153–186). Washington, DC: American Psychological Association.
- Campbell, J.R., Hombo, C.M., & Mazzeo, M. (2000). *NAEP 1999 trends in academic progress: Three decades of student performance*. Washington DC: OERI, U.S. Department of Education.
- Carroll, J. (1963). A model for school learning. *Teachers College Record*, 64, 723–733.
- Chaiklin, S. (2003). The zone of proximal development: Vygotsky's analysis of learning and instruction. In A. Kozulin, B. Gindis, V.S. Ageyev, & S.M. Miller (Eds.), *Vygotsky's educational theory in cultural context* (pp. 39–64). Cambridge: Cambridge University Press.
- Cole, M. (1996). *Cultural psychology*. Cambridge, MA: Harvard University Press.
- Cole, M., & Engestrom, Y. (1993). A cultural-historical approach to distributed cognition. In G. Salomon (Ed.), *Distributed cognitions: Psychological and educational considerations* (pp. 1–46). Cambridge, England: Cambridge University Press.
- Cole, M., Gay, J., Glick, J.A., & Sharp, D.W. (1971). *The cultural context of learning and thinking*. New York: Basic Books.
- Crowder, R.G., & Wagner, R.K. (1992). *The psychology of reading: An introduction* (2nd ed.). New York: Oxford University Press.
- Davis, F.B. (1983). Fundamental factors of comprehension in reading. In L.M. Gentile, M.L. Kamil, & J.S. Blanchard (Eds.), *Reading research revisited* (pp. 235–245). Ohio: Charles E. Merrill.
- Donahue, P.L., Daane, M.C., & Jin, Y. (2005). *The nation's report card: Reading 2003* (NCES 2005-453). U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.
- Donahue, P.L., Voelkl, K.E., Campbell, J.R., & Mazzeo, J. (1999). *NAEP 1998 Reading report card for the nation and the states* (NCES 1999-500). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Educational Statistics.
- Donaldson, M. (1978). *Children's minds*. New York: Norton.
- Duke, N.K. (2000). 3.6 minutes per day: The scarcity of informational texts in first grade. *Reading Research Quarterly*, 35, 202–225.
- Engestrom, Y., Miettinen, R., & Punamaki, R.L. (Eds.). (1999). *Perspectives on activity theory*. Cambridge, England: Cambridge University Press.
- Friedman, T.L. (2005). *The world is flat: A brief history of the twenty-first century*. New York: Farrar, Straus and Giroux.
- Granahan, S. (2006). *Searching for lost tombs*. New York: Newbridge.

- Griffin, P., & Cole, M. (1987). New technologies, basic skills, and the underside of education: What's to be done? In J. Langer (Ed.), *Language, literacy, and culture: Issues of society and schooling* (pp. 199–231). Norwood, NJ: Ablex.
- Guthrie, J.T., Anderson, E., Alao, S., & Rinehart, J. (1999). Influences of concept-oriented reading instruction on strategy use and conceptual learning from text. *The Elementary School Journal*, 99, 343–366.
- Hagoort, P., Hald, L., Bastiaansen, M., & Petersson, L.M. (2004). Integration of word meaning and world knowledge in language comprehension. *Science*, 304, 438–441.
- Johnson, D., & Pearson, P.D. (1975). Skills management systems: A critique. *The Reading Teacher*, 28, 757–764.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, England: Cambridge University Press.
- Leont'ev, A.N. (1981). *Problems of the development of mind*. Moscow: Progress.
- Luria, A.R. (1932). *The nature of human conflicts: An objective study of disorganization and control of human behavior* (W.H. Gantt, Ed. & Trans.). New York: Liveright.
- Luria, A.R. (1973). *The working brain*. New York: Basic Books.
- McClelland, J.L. (1989). Parallel distributed processing: Implications for cognition and development. In R. Morris (Ed.), *Parallel distributed processing: Implications for psychology and neurobiology* (pp. 8–45). New York: Oxford University Press.
- Miller, S.D., & Blumenfeld, P.C. (1993). Characteristics of tasks used for skill instruction in two basal reader series. *The Elementary School Journal*, 94(1), 33–47.
- Moore, D.W., & Hinchman, K.A. (2006). *Teaching adolescents who struggle with reading: Practical strategies*. Boston: Allyn & Bacon.
- Nagy, W. (1988). *Teaching vocabulary to improve reading comprehension*. Newark, DE: International Reading Association.
- National Institute of Child Health and Human Development (2000). *Report of the national reading panel. Teaching children to read: An evidenced-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.
- Newman, D., Griffin, P., & Cole, M. (1989). *The construction zone: Working for cognitive change in school*. Cambridge, England: Cambridge University Press.
- Otto, W. (1977). The Wisconsin design: A reading program for individually guided education. In H.J. Klausmeier, R.A. Rossmiller, & M. Saily (Eds.), *Individually guided elementary education: Concepts and practices* (pp. 216–237). New York: Academic Press.
- Pilonieta, P. (2006). *Genre and comprehension strategies presented in elementary basal reading programs: A content analysis*. Unpublished Dissertation, University of Miami.
- Plaut, D., & McClelland, J.L. (1993). Generalization with componential attractors: Word and nonword reading in an attractor network. In *Proceedings of the 15th annual conference of the Cognitive Science Society* (pp. 824–829). Hillsdale, NJ: Erlbaum.
- Radzikhovskii, L.A. (1991). Dialogue as a unit of analysis of consciousness. *Soviet Psychology*, 29(2), 8–21.



- Resnick, L.B., Levine, J.M., & Teasley, S.D. (Eds.). (1991). *Perspectives on socially shared cognition*. Washington, DC: American Psychological Association.
- Riddle, M.R., & Valencia, S.W. (2002). Below the bar: Profiles of students who fail state reading assessments. *Educational Evaluation and Policy Analysis*, 24(3), 219–239.
- Rivard, L.P., & Straw, S.B. (2000). The effect of talk and writing on learning science: An exploratory study. *Science Education*, 84(5), 566–593.
- Rogoff, B. (2003). *The cultural nature of human development*. New York: Oxford University Press.
- Rumelhart, D.E. (1994). Toward an interactive model of reading. In R.B. Ruddell, M.R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (4th ed., pp. 864–894). Newark, DE: International Reading Association.
- Rumelhart, D.E., & McClelland, J.L. (1982). An interactive activation model of context effects in letter perception: Part II. The contextual enhancement effect and some tests and extensions of the model. *Psychological Review*, 89, 60–94.
- Scarborough, H.S. (2001). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. Neuman & D. Dickinson (Eds.), *Handbook for research in early literacy* (pp. 97–110). New York: Guilford Press.
- Scribner, S., & Cole, M. (1981). *The psychology of literacy*. Cambridge, MA: Harvard University Press.
- Singley, M.K., & Anderson, J.R. (1989). *The transfer of cognitive skill*. Cambridge, MA: Harvard University Press.
- Snow, C., Griffin, P., & Burns, S.M. (Eds.). (2005). *Knowledge to support the teaching of reading: Preparing teachers for a changing world*. San Francisco: Jossey-Bass.
- Stanovich, K.E. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. *Reading Research Quarterly*, 16, 32–71.
- Stewart, M. (2003). *Cells to systems*. New York: Newbridge. ← [\*AU: Check this. Can't find.\*]
- Stewart, M. (2006). *Meet the beetles*. New York: Newbridge.
- Tomasello, M. (1999). *The cultural origins of human cognition*. Cambridge, MA: Harvard University Press.
- Tulviste, P. (1991). *The cultural-historical development of verbal thinking*. Commack, NY: Nova Science.
- Vierow, W. (2005). *Come to Florida!* New York: Newburg. ← [\*AU: Check this. Can't find.\*]
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Soubberman, Eds. & Trans.). Cambridge, MA: Harvard University Press. (Original work published 1934)
- Vygotsky, L.S. (1981). The genesis of higher mental functions. In J.V. Wertsch (Ed. & Trans.), *The concept of activity in Soviet psychology* (pp. 144–188). Armonk, NY: M.E. Sharpe.
- Vygotsky, L.S. (1987). *The collected works of L.S. Vygotsky: Vol.1, Problems of general psychology. Including the volume thinking and speech* (N. Minick, Trans.). New York: Plenum.
- Vygotsky, L.S. (1999). *Educational psychology*. Boca Rotan, FL: St. Lucie Press. (Original work published 1926) ← [\*AU: 1997?\*

- Wells, G. (1999). The zone of proximal development and its implications for learning and teaching. In G. Wells (Ed.), *Dialogic inquiry: Towards a socio-cultural practice and theory of education* (pp. 313–334). Cambridge, England: Cambridge University Press.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. New York: Cambridge University Press.
- Wenglinsky, H. (2000). *How teaching matters: Bringing the classroom back into discussions of teacher quality*. Princeton, NJ: Educational Testing Service.
- Wertsch, J.V. (1985). *Vygotsky and the social formation of mind*. Cambridge, MA: Harvard University Press.
- Wertsch, J.V. (1991). *Voices of the mind: A socio-cultural approach to mediated action*. Cambridge, MA: Harvard University Press.