CHAPTER 1

Foundational Knowledge about Literacy

Foundational knowledge forms the underpinnings of teachers' instructional practices in literacy. Knowledge of literacy development—and the cognitive, social, and affective processes required to support literacy development—is key to thoughtful instruction. A teacher who is knowledgeable about literacy theory, and connects this knowledge with practice, can critically evaluate texts, flexibly adapt curricula, and intentionally design instruction to meet the needs of students in a range of situations.

This chapter provides a brief introduction to key ideas regarding the relationship between language and literacy, various perspectives on literacy and literacy learning, theories of reading processes, theories of writing processes, developmental progression of literacy, and issues of digital literacy.

THE RELATIONSHIP BETWEEN LANGUAGE AND LITERACY

What Is It?

Oral and written language are intertwined. Written language is the symbolic representation of oral or signed language. Learning the written code in any language rests upon oral or signed language.

What Do Teachers Need to Know?

Oral language proficiency underlies development of reading and writing. Although oral and written languages have much in common in terms of vocabulary, syntax, and use, there are important differences as well. Teachers who understand these commonalities and differences are better equipped to help children use their oral language to become skilled readers and writers.

Grammar and Register

The purpose of all language, whether written, gestured, or spoken, is to enable people to share meanings with one another. Every language follows rules (grammar or syntax) that govern the structure of the language. The vocabulary of the written and oral versions of a language is the same, although certain words are more likely to be used in the written version and others more likely to be used in the oral version. Within any language there are multiple registers—the way teenagers speak among their friends is different from the way they speak to their parents or how they speak to teachers or employers. Written language, too, exists in multiple registers, some more formal than others—a thank-you note, a fairytale, and an article in a scientific journal all vary in levels of formality. Particularly significant for beginning readers is that texts are typically more formal than everyday speech. A challenge for beginners is that written language doesn't always match their speech.

Ordinarily, young writers write the way they speak until taught otherwise, which accounts for the endless run-ons of so many 7-year-olds, and the informal oral register found in inexperienced writers. It is worth remembering, too, that young writers encouraged to use invented spelling, *spell* the way they speak—complete with immature pronunciations. Gaining control in writing of standard English presents a major challenge for many children, particularly those whose spoken language varies considerably from standard English. Because language is tightly connected to cultural identity, teachers need to be sensitive to these children and teach the standard English register while also recognizing the appropriate use of the children's home registers.

Oral Language Is Contextual

Tone, gestures, and facial expressions, as well as proximity and shared context, enable speakers and listeners to more easily understand each

other. Without the rich contextual supports available in oral and signed contexts, readers must work harder to construct meaning. However, until very recently in human history, oral (and signed) language was transitory, whereas the permanence of written language enabled written language to bridge across time and space. This was an advantage written language held over spoken language. However, the newly developed ease of recording and disseminating speech and gesture may change this long-standing distinction.

Oral Language Is Natural; Written Language Is a Cultural Invention

Except for rare cases of extreme social deprivation or severe physiological deficits, all children develop oral or signed language. In fact, many linguists believe humans are born with a language capacity hardwired in their brains (Pinker, 1994). Thus, children are said to "acquire" spoken (or signed) language—oral language acquisition is considered natural. On the other hand, written language is a more recently developed cultural invention (approximately 3200 B.C.E.) that requires intentional instruction.

Familiarity with Stories and Books Supports Literacy Acquisition

Children who have familiarity with Western story structure, and the sentence structure and vocabulary found in books can anticipate words and events in stories more easily than those with less familiarity. This familiarity is a valuable support for learning to read and write. Children who are unfamiliar with book language—and whose oral language is at great variance with book language— may not anticipate the words in the sentences they encounter in written texts, or may not recognize when a word does not fit the sentence structure.

Comprehension of Written Text Is Related to Comprehension of Oral (Spoken) Language

The richness of a child's oral language is highly correlated with a child's reading proficiency. Younger children cannot be expected to comprehend written text that they would not understand if it was read to them. However, beyond the beginning phase of reading, reading experience

becomes a prime vocabulary and syntax builder. Most avid readers can recall mispronouncing words that have entered their vocabulary via reading. Advanced readers are able to use a host of strategies to understand written text that is *more* difficult than they would be able to understand by listening.

The richness of a young child's oral language—the breadth and depth of the child's vocabulary, and the child's familiarity with a wide range of sentence structures, including those only found in written forms of language—depends on the quantity and quality of the child's interactions with caregivers during the early years. In the United States, vast differences in oral language proficiency exist before school entry between children from rich language environments and children from average or poor language environments. According to Hart and Risley, children raised in typical professional families hear 30 million more words by the age of 3 than children raised in families receiving welfare (Hart & Risley, 1995, 2003). Vocabulary size at age 3 correlates strongly with reading comprehension in third grade and beyond (Sénéchal, Ouellette, & Rodney, 2006). Intensive work to enrich vocabulary once children can read will narrow this gap. We feel that in recent years far too little attention has been paid to the development of oral language.

ACTIVITY 1.1
Using a Venn Diagram to Compare Oral and Written Language

SUSAN D. MARTIN

Activity Type: In-class activity.

Materials: Venn diagram graphic for students and instructor.

Duration: 30–45 minutes.

Professional Learning Focus:
- Recognize the role of language in written language development.
- Recognize foundational commonalities of written and oral language.

Standards Links

IRA Professional Standards:
1.1 Understand major theories and empirical research that describe the cognitive, linguistic, motivational, and sociocultural foundations of reading and writing development, processes, and components.

Common Core State Standards: N/A.

- Recognize differences in oral
  language development, processes,
  registers, and conventions.
- Recognize implications for literacy
  instruction.

K–8 Student Learning Focus:
Purposes for aspects of written
language.

Rationale

As proficient users of all aspects of English language—speaking, listening, reading, and writing—we don't always consciously think about or recognize the specific ways in which oral and written language are similar and dissimilar. We shift easily between multiple written and spoken speech genres (Bakhtin, 1986), with seemingly automatic adjustments to the conventions and natures of the genres. Foundational similarities of oral and written language support development of reading and writing. For instance, sentence organization does not alter as we shift from oral to written language. On the other hand, differences between oral and written language registers, genres, and conventions can interfere with efficient reading and writing. While sentences frequently begin with *because* in spoken English, students are admonished to not begin written sentences this way. Conscious recognition of the similarities and differences between oral and written language can assist teachers in understanding some difficulties in students' reading and writing development, while providing them rationales for written language conventions to share with their students.

Description

1. Teachers are given individual copies of the Venn graphic (Figure 1.1). In small groups, they first brainstorm ways that oral and written language are similar for 5–10 minutes. They record their answers in the overlapping section of the graphic.

2. Using a projected e-copy, I solicit responses from students and create a group product. Teachers are encouraged to add to their individual copies as we do this. I make sure that critical points are included. These include communicative purposes, meaning making, syntax, semantics/vocabulary, phonological foundations, as so on. We then discuss implications for literacy learning and the foundational nature of oral language.

3. I then give them another 5–10 minutes to discuss and record differences in their small groups.

Spoken Language　　Written Language
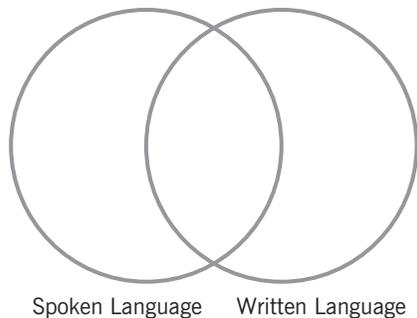
FIGURE 1.1. Venn diagram.

4. We again debrief and I record on our shared product as shown in Figure 1.2. Critical points include the move from a phonological to a graphophonic foundation; oral language as hardwired into the brain, while written language is a cultural invention; great dependence on nonverbal elements in constructing meaning in spoken language; development of meaning in situated, personal contexts versus abstract contexts separated by time and space; joint meaning making in conversation as opposed to the lone reader constructing meaning; and differences in conventions of syntax and vocabulary in oral and written language—including more formalized aspects of written language such as spelling, capital letters, and punctuation. We discuss implications for literacy learning.

5. Teachers turn to a partner and describe one thing they learned during this lesson and implications for their practices.

Discussion

While serving as a teacher/teacher educator in the Peace Corps in the Philippines in 1995, I grappled with issues of working with English language learners for the first time, as well as with notions of psycholinguistics (Goodman, 1986). Trying to make sense of what I was experiencing and reading—and putting it together with knowledge gained from 18 years of classroom teaching—I created a graphic organizer in which I compared and contrasted the four aspects of language—speaking, listening, reading, and writing. This was the first time I had ever paid conscious attention to issues of oral and written language. What an enlightening process this was!

This experience laid the foundation for the Venn activity I now do in both the preservice and inservice courses. As I make sure that critical points are included in the group graphic, I typically draw on deeper understandings about language and literacy that I have developed since 1995. Although simple, this activity appears to generate ahas! for other teachers as well. I have found that comparing

just oral and written aspects of language serves appropriate purposes in most of my courses, and is much less confusing—especially for preservice teachers— than comparing speaking, listening, reading, and writing. I do engage experienced teachers in comparing across the four aspects of language.

A good deal of discussion is generated around this activity, particularly in the areas of signed language, English language learning, and technologies that record and preserve oral language. I make sure to discuss how the insights noted on the Venn diagram can be shared with K–8 students to create purposes for aspects of written language. For example, rigid conventions to do with spelling and punctuation can be ascribed to the need to communicate effectively across time and distances. Reasons, rather than rote rule, can be emphasized in the literacy classroom.

Figure 1.2 is a model of a completed chart, with a record of important information.

References

Bakhtin, M. M. (1986). *Speech genres and other late essays* (C. Emerson & M. Holmquist, Eds.; V. W. McGee, Trans.). Austin: University of Texas Press.

Goodman, K. S. (1986). *What's whole in whole language?* Portsmouth, NH: Heinemann.
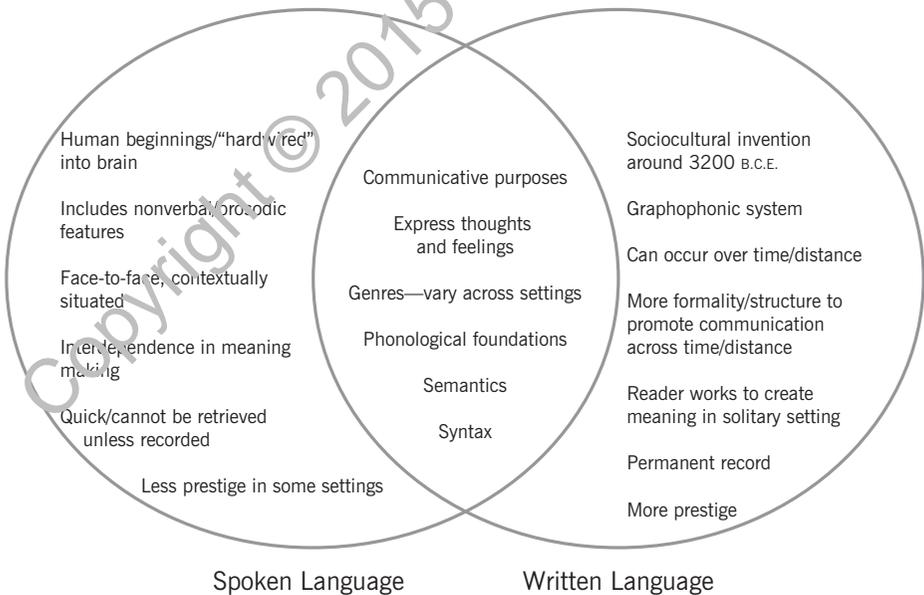
FIGURE 1.2. Completed Venn diagram.

AFFECTIVE, SOCIAL, AND COGNITIVE PROCESSES RELATED TO LITERACY DEVELOPMENT

What Is It?

Our understandings of reading and writing processes as well as literacy learning and development have been enriched by research from many theoretical perspectives. From cognitive psychology and neuropsychology come discoveries about how the brain perceives, processes, stores, and retrieves information, and how children's cognitive functioning changes as they mature. From social psychology, sociology, and other fields come insights regarding the influences of culture, belief systems, emotional development, and social interaction on learning. Teachers need to understand the key insights into literacy learning and development that come from these disciplines to create the most powerful instructional environments. Although we tend to think of literacy learning as primarily a cognitive process, successful new learning also depends on affective factors and social interaction.

What Do Teachers Need to Know?

Affective Processes: Dispositions and Motivation for Engagement in Literacy Learning

What motivates a child's engagement in reading and writing? Curiosity about a topic? The desire to get lost in a good story or share a funny story with a relative who lives far away? The desire to please a teacher or get a good grade? A willingness to persevere on a difficult task and the strong sense of accomplishment that can follow? The answers to these questions have an enormous impact on the learning trajectory of children—with profound implications for classroom practices and teacher decision making.

Children come to school with wide variations in interests, goals, and in dispositions toward literacy learning. They vary in confidence, persistence, and ability to self-regulate in complex tasks, as well as in their understanding of what the value or rewards of reading and writing might be. A growing body of evidence demonstrates that differences in dispositions toward learning affect long-term performance in school and life more than whatever is measured by intelligence tests (Tough, 2012). Similarly, children who view reading and writing as meaningful activities that have value in their lives show more

persistence over time and develop greater proficiency than children who view literacy tasks as something required for school or work with little personal value. Attention to the affective aspects of literacy learning is sometimes overlooked, but is an essential component of effective literacy instruction.

Children's and teachers' beliefs about the relationship between intelligence and literacy learning play a major role in student engagement and persistence. Children who believe that intelligence is a fixed trait, and that the ability to learn school tasks such as reading or writing is mostly fixed (a fixed performance frame; Johnston, 2012) give up more quickly when the task becomes difficult than do children who believe that it is mostly the effort put forth that will determine their success in a school task (a dynamic learning frame; Johnston, 2012). Fortunately, teachers have tremendous power to influence how children view themselves as learners. Teachers can assist children in framing positive learning narratives through the language they use (Johnston, 2004, 2012). Avoiding judgmental terms such as *good* or *bad* when referring to readers or writers, and insisting on a growth perspective, teachers can change a child's fixed-trait views. When a child looks to a teacher for confirmation in his or her oral reading, the teacher can turn it back to the child by saying, "Were you right?" demonstrating confidence in the child's own powers while teaching the valuable skill of self-regulation. Limiting praise to very specific actions (Johnston, 2012) and providing accurate and timely feedback builds children's confidence in their abilities to take on new challenges, and, ultimately, their literacy competency (Locke & Latham, 1990).

Deep and serious learning requires risk taking, as we go beyond what we already can do. The social settings in which learning occurs can either hinder or enhance willingness to take risks. A supportive classroom—where the climate invites experimentation, errors are viewed as a natural consequence of learning and trying new things, and children feel protected from ridicule—is of paramount importance for children to develop as readers and writers to their fullest extent. Thus, teachers must create the safe learning environments children need to read aloud, discuss their ideas, or share their writing.

In reading and writing, as with all complex endeavors, there is a direct relationship between practice and proficiency (Anderson, Wilson, & Fielding, 1988; Pressley, Mohan, Raphael, & Fingeret, 2007.) But children will not read or write extensively if they do not enjoy it or view

it as a meaningful activity! The widespread use of extrinsic rewards, such as stickers, suggests teachers recognize the critical role that students' motivation for learning plays in classroom settings. But extrinsic incentives to motivate reading have been found to have minimal effects at best—unless tightly linked to the reading task, such as using books for rewards (Gambrell, 2011). More often, extrinsic rewards have negative effects: they undermine children's long-term habitual motivation to read (Schiefele, Schaffner, Moller, & Wigfield, 2012).

However, teachers can encourage the development of a "habitual motivation" to read, as well the development of "current motivation" (motivation to complete a specific literacy task; Schiefele et al., 2012) by selecting engaging literacy activities based on the interests and abilities of their students. This includes expressive reading aloud, helping children find texts that interest them, and helping them choose topics and writing genres of personal relevance. Leveraging students' desire for social interaction by using instructional arrangements such as book clubs, brainstorming with a buddy, or sharing writing with classmates and family is another effective tool for motivating literacy practice. Providing the correct degree of challenge in a text or task also motivates students. However, determining an appropriate degree of challenge is a difficult task for teachers since there is so much variation among students in interest, background knowledge, word identification skill, and persistence at difficulty.

The inherent complexity of reading and writing processes can stymie even proficient readers and writers. Teachers need to help students develop strategies and other tools to tackle and "manage the challenges and difficulties of writing" (Boscolo & Gelati, 2007, p. 219) and reading. Motivating students to tackle complex literacy tasks may require teachers to intentionally shape student understandings of reading and writing as challenging but meaningful activities. In sum, the role of the teacher in fostering positive student dispositions and motivation for literacy learning goes far beyond offering stickers or pizza parties.

Social and Cultural Processes

Learning to read and write is a social and cultural process as well as a cognitive task. In addition to motivating children, the power of social interaction as an aid for taking on new learning can be seen in many of the structures and routines found in the most productive literacy

classrooms: turn and talk, literature circles, author's chair, and reciprocal teaching, among others. The role of social processes in learning is highlighted in Vygotsky's (1896–1934) highly influential work on cognitive development, in which interaction with a more knowledgeable other is viewed as key to new learning (Vygotsky, 1978). Vygotsky's theory of the zone of proximal development (ZPD) influences many current practices in literacy pedagogy. The "sweet spot" for new learning, the ZPD is that place just beyond what the learner can accomplish independently, but where the skillful assistance from a more knowledgeable person enables the child to accomplish the task. Success in the new task then pushes the ZPD to another level. This principle can be seen in the practices of shared reading and guided reading, the practice of providing some information about the ideas and words in a text about to be read before the children embark on reading, interactive writing, and in all manner of instructional conversations. In these examples, social interactions with a more knowledgeable other are critical to learning.

An important insight derived from a sociocultural perspective is that children gain understandings of the uses and purposes of reading and writing from how they see literacy used and valued in their families and communities, and that these understandings affect their comfort in and progress at school. Some children grow up immersed in routines of storybook reading and writing very similar to those they will encounter in school, and slide effortlessly into the school culture. Other children have had minimal exposure to written registers before school entry, but may know stories, songs, and poems that were told to them orally. Understanding different home literacy experiences will help teachers capitalize on what children already know, and avoid misunderstandings and mismatches between the culture of the school and the culture of the child that can interfere with learning (Heath, 1983/1996). For example, teachers who use songs and stories from students' communities as literacy texts help students build on their existing knowledge, while also fostering connections between home and school.

Cognitive Processes

The constructivist theory of learning first proposed by developmental psychologist Jean Piaget (1896–1980) continues to inform both literacy learning and literacy pedagogies. In a constructivist orientation individuals are seen to play an active role in their own learning. They

interact with, and modify, new information by thinking about it in terms of their existing "schemas," thought structures that are representations of the world based on previous experiences. As learners engage with new information they develop "approximate" understandings that are refined over time as the individual assimilates additional experiences into his or her existing schemas (Piaget & Inhelder, 1971). Children's partial understandings can serve as valuable windows into the ways that learners are thinking about literacy. For example, when a child spells *went* YT, we can surmise he or she is using the rule he or she has constructed that the letter's name includes its sound, as it does for nearly all letters, and has not yet learned all of the exceptions to the rule.

Vygotsky's theory of cognitive development also falls within the constructivist umbrella. As mentioned above, the principle of the ZPD contributes enormously to literacy pedagogy today. The impact of constructivism on literacy instruction can be seen in the use of a careful gradation of difficulty for beginning readers (leveled texts), the recognition that reading involves an interaction between reader and text (Rosenblatt, 1938/1983), the recognition of the importance of stimulating related background knowledge before reading (Anderson & Pearson, 1984), and in efforts to use instructional techniques that foster active participation by the learner—"hands-on" techniques.

More recent work in neuropsychology has contributed new and detailed understandings of literacy processes. Many separate interacting perceptual and cognitive processes, such as visual perception, working memory, and pattern detection, work together to enable reading or writing to occur. Individual differences in all of these factors can contribute to the relative ease or difficulty an individual may experience in learning to read and write.

A key insight for literacy educators from the information processing approach in cognitive psychology is the concept of two aspects of memory: "working memory" (short-term transitory memory) and "long-term memory" (memory available for another time; Sternberg, 2001). Since only a few ideas can be held in working memory (five to nine for adults, fewer than five for children), the development of automaticity in letter and word identification (automatic or instantaneous recognition that does not require conscious effort) is critical. The bigger the chunks (letters, words, or even phrases) a reader can identify or a writer can produce automatically, the more space exists in working memory to focus on comprehension or composition.

Another important idea from neuroscience is "neural connectivity"—the notion that neural connections between parts of the brain can be strengthened through repeated use. The more frequently that connections among the various parts of the brain related to reading—print, letter sound, meaning, and context—are made, the more rapid this connection will become, resulting in more fluent reading and better comprehension.

READING PROCESSES

What Is It?

How is it that we can gaze at some black marks on a piece of paper and develop a vivid picture in our mind's eye of acres of burnt-out forests seen from a moving train, and feel the despair of the man who has lost his young wife and child to that fire (Johnson, 2011)? Models and theories of reading explain how the mind turns the letters on the page into meaningful language. Early modelers of the reading process relied primarily on reasoning and experiments; more recently, computer modeling and brain imaging techniques have enabled researchers to refine our understanding of how the complex cognitive activity we call reading occurs.

What Do Teachers Need to Know?

Reading—constructing meaning from print—is a complex, multifaceted process dependent on attentional, perceptual, emotional, language, and memory systems working rapidly and in concert. Understanding different facets of the process helps teachers understand what they need to do to help children.

Simple View of Reading Processes

One way to understand reading processes is the "simple view of reading" (Hoover & Gough, 1990). The simple view proposes that reading can be described as the interaction of word recognition and oral language comprehension. Severe decoding weaknesses can prevent adequate reading comprehension even when oral language comprehension is normal or advanced. Similarly, a child with excellent decoding skills can have poor reading comprehension if the child's oral language is underdeveloped

(*www.balancedreading.com/simple.html*). Once children learn to read, reading experience strengthens both language proficiency and decoding proficiency. Word identification is but one component of this complex, interlocking system.

Multiple Cueing Systems Involved in Word Recognition

Emergent and early readers rely on the redundancies of language to determine the pronunciation of words whose print form is unfamiliar to them. For example, what would you place in the blank of the following sentence: "My _____ wouldn't start this morning?" Most people would say *car* or *truck*, perhaps a few might select *motorcycle*. But if provided with just the initial letter *t*, the list of likely candidates is significantly narrowed. Beginners (and struggling readers) take advantage of that redundancy to combine context (meaning), including any illustrations with syntax (the sentence structure or grammar), and partial letter information to determine unfamiliar words, as in the example above. Meaning (semantics), structure (syntax), and graphophonics (the letter–sound system) are often referred to as the three cueing systems used by readers to assist in word identification.

Eye-movement studies confirm that skilled readers rather unconsciously process all the letters in the words they read, with the exception of some high-frequency function words (Samuels, Rasinski, & Hiebert, 2011). However, context and sentence structure facilitates word recognition for experienced readers, as well as novices, by activating networks of knowledge and expected words. In fact, meaning and syntax *must* be used to determine the pronunciation of words like *read* and *row*.

Interactionist Perspective

Reading does *not* occur through a letter-by-letter, word-by-word assembly process. In an early model of reading, Gough proposed that the reader perceives individual letters in sequence, translates the letters into sounds, turns the sounds into words, the words into sentences, and the sentences into meaning—a strictly linear "bottom-up" theory (Gough, 1972, as cited in Gough, 2004, p. 1180). However, literacy researchers have since realized that word identification is facilitated by the reader's prior knowledge as he or she predicts words and constructs meaning. Nearly all theorists, including Gough (2004), now accept an interactionist view in which the meaning of larger units depends on the

recognition of individual words, but at the same time word recognition is facilitated by the overall meaning being constructed by the reader. This is referred to as a "top-down" effect. Brain-imaging studies have found rapid, near simultaneous activation from areas of stored knowledge to the area used for word recognition, which confirms the interactionist view. Nevertheless, our experience with beginning teachers leads us to believe that most teachers unconsciously hold a model very similar to Gough's (1972, as cited in Gough, 2004, p. 1180) original model. As teacher educators and professional developers, we need to help teachers develop a more complex and nuanced understanding of reading processes.

Comprehension Depends on Background Knowledge and Vocabulary

Background knowledge is organized into schema, networks of related information. The more an individual already knows about a topic—the more developed the schema—the more easily that individual will comprehend written (or oral) information about the topic (Anderson, 2004). Constructing meaning from text on an unfamiliar topic requires creating a new concept from scratch, and is far more difficult. The schemas possessed by the reader, including the reader's knowledge of language patterns and text structures, helps a reader anticipate upcoming ideas and words and, thus, facilitates word recognition as well as comprehension. Jokes and puns often depend on this facilitation effect for their punch; we anticipate a word and then revel in an unexpected turn. Vocabulary is a particularly critical component of background knowledge. When a reader encounters a high density of unknown or only weakly understood words, he or she will experience great difficulty understanding the text even at a literal level. Sometimes even one or two unknown words will prevent a reader from grasping the meaning of a selection, if the word is key to the meaning of the text.

Because each reader has unique life experiences, each reader will apply a different set of schema to a text, coloring his or her interpretation of it. When a reader already has a well-developed schema for a topic he or she is reading about, he or she will generate mental pictures, and often sounds, smells, and even kinesthetic responses. The reader's memory of the text will include the images and other sensory details evoked from the print. This memory, or encoding, in multiple senses is referred to as dual coding (Sadoski & Pavio, 2004). Readers retain their sensory

responses to a text long after the details fade, remembering the loss triggered by Charlotte's death (White, 2004) or the inward terror evoked by a thriller.

Reader Response Theory

Reader response theory (Rosenblatt, 1938/1983) provides another useful lens with which to view the comprehension process. Rosenblatt asserts that the meaning of a text does not lie solely in the words on the page, but is constructed from *transactions* between the reader and what the author has written. Thus, each reader will have a unique response to a work of literature because each reader brings his or her own experiences and worldview to the work. Rosenblatt developed the useful construct of two types of reading: *aesthetic* for when we read primarily for the emotional and/or aesthetic value of the experience and *efferent* for when we read for gathering information.

ACTIVITY 1.2
Role of Schema in Text Comprehension
DEBORAH G. LITT

Activity Type: In-class activity.

Materials: Copies or projection of one of the experimental passages from Anderson's (1994) paper "The Role of Reader's Schema in Comprehension, Learning, and Memory" or a passage with similar ambiguities.

Duration: 15–20 minutes.

Professional Learning Focus: Insight into the role of background knowledge in reader interpretation and comprehension of text.

K–8 Student Learning Focus: Need to integrate background knowledge with text information.

Standards Links

IRA Professional Standards:
1.1 Recognize major theories of reading and writing processes and development, including first and second language acquisition and the role of native language in learning to read and write in a second language.

Common Core State Standards: N/A.

Rationale

Teachers' recognition of the enormous role a reader's background knowledge plays in comprehension is one of the foundational understandings I believe is most important for teachers to deeply comprehend. I believe that when teachers understand this idea they are more likely to make the effort to (1) develop children's background knowledge to enable them to understand what they are about to read and (2) understand why a child misunderstands a text. I developed this simple activity to ensure that teachers understand and remember the critical role schema plays in comprehension.

Description

I distribute or project the "Tony" passage from Anderson's 1994 article and ask the teachers to read it and jot down what they think it is about. When everyone has finished reading I ask what they thought the passage was about. They are usually surprised to discover that not everyone thought it about the same topic. Some think it is about a prisoner, others think it is about a wrestler, and a few have suggested that Tony is a dog or another animal in captivity. I probe further to ask why they came to the conclusions they did. No matter which interpretation they take, they inevitably point to the same pieces of information in the text—desire to escape, a mat, and early roughness—as leading to their interpretation of the topic of the passage. I then guide the teachers in understanding that each individual's background knowledge and schemas influence their interpretation. Participants or fans of wrestling might be more likely to think of wrestling when they see the words *hold* and *mat*, whereas fans of police procedurals would be more likely to think of prison.

Discussion

I find that having teachers experience for themselves how mature, educated readers can have differing interpretations of a short text makes the principle memorable for them. When used in a semester course, the activity provides a touchstone I can refer to throughout the remainder of the semester. Sometimes teachers ask me what the "real" answer is and I explain that the passage was created to be intentionally ambiguous for an experiment. In the study Anderson (1994) describes in the article, college students who wrestled or followed the sport thought the passage was about wrestling, while others assumed Tony was a prisoner.

Reference

Anderson, R. C. (1994). Role of reader's schema in comprehension, learning, and memory. In R. Ruddell & M. Ruddell (Eds.), *Theoretical models and processes of reading* (pp. 469–482). Newark, DE: International Reading Association.

ACTIVITY 1.3
Informational Illustration Charts
MARY ANN CAHILL and ANNE GREGORY

Activity Type: In-class activity.

Materials: Premade charts; pens.

Duration: 20–30 minutes.

Professional Learning Focus: Provide information multimodally (visually and verbally) to enhance learning.

K–8 Student Learning Focus: Use information gained from illustrations (e.g., maps, photographs) and words to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

Standards Links

IRA Professional Standards:
1.2 Explain language and reading development across elementary years using supporting evidence from theory and research.

Common Core State Standards: Reading Anchor Standards
7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

Rationale

Informational illustration charts are powerful, multimodal presentation tools that make complex vocabulary and concepts related to literacy comprehensible to teachers, especially to novices who have little or no understanding. The multimodal presentation occurs both verbally and visually. We draw charts in front of our students as we talk. We find that informational illustration charts are a useful tool to help them visualize concepts while simultaneously providing them with information, therefore making concepts more easily encoded into memory (Troje & Giurfa, 2001). Using informational illustrations in our literacy courses enables us to activate prior knowledge, build background (i.e., both conceptual and specific for the lecture selection), introduce content specific vocabulary, and provide a visual representation of the concept for students.

Furthermore, strategies such as the informational illustration provide a means for teacher educators to model the instruction they wish to see occurring in classrooms; in this way, such strategy use serves as a bridge between theory and instruction (Kucer, 2005). We have successfully used informational illustration charts in our work over the last 4 years with teachers and students in several elementary and middle schools.

Description

Creating and presenting an informational illustration chart is a two-step process for teachers: designing and presenting the illustrations.

Planning

We typically begin by identifying the key vocabulary that will be used (such as *phonological awareness, analytic phonics*, and *synthetic phonics*, as noted in our examples below), and then follow through with identifying background knowledge, prior knowledge, and examples. These steps are outlined below.

1. *Vocabulary*. We critically examine the ideas and concepts to be presented and write down all the words related to these that might need clarification. While doing this, we try to think like an education student in our classes . . . whatever will be confusing and needs clarification and should be written down.

2. *Background knowledge*. We carefully consider the background knowledge that students must have to understand this concept. We often assume that our students have this background, but in actuality, they may not. It will be necessary to bring this knowledge to students if the concept is to be understood.

3. *Activating background knowledge*. While thinking about the concept, we consider what questions will help to activate students' prior knowledge to make connections and retrieve background knowledge they may already possess.

4. *Examples*. We determine the concept and list several key examples that specifically pertain to it. For example, *alliteration*, *syllables*, *onsets*, *rime*, and *phonemes* for the concept of phonemic awareness.

5. *Sketch out informational illustration.* Using the above information, we create a sketch that illustrates the idea/concept being presented. To do this, we use light pencil on a piece of chart/butcher paper surrounded by information, words, and ideas that we wish students to understand. This, in essence, becomes the outline for the presentation. This chart will be a dynamic part of the classroom; additional information will be added to it in subsequent classroom sessions.

Presenting Illustration to Students

1. *Reveal.* Using a large piece of chart/butcher paper, we begin to draw out the sketch that was previously prepared using a dark marking pen. Some storytelling generally goes along with this. This should be considered to be a lively and engaging discussion about the concept/idea, in which students are asked to interact with the information. Additionally, we are sure to include discussion of pertinent information and important vocabulary as it is written on the visual representation. This is the opportunity to impart a great amount of knowledge to them. Sometimes they don't even realize they are learning!

2. *Retelling*. On subsequent days, we encourage students in small groups to "retell the illustration." We distribute vocabulary words and/or pictures to the students. As we retell the illustration, students are encouraged to come to the visual representation and affix the vocabulary/picture card to the proper part of the chart as it is occurs in the retelling. While this may seem somewhat basic, we have found that this constant repetition of conceptual information helps students remember this information.

Discussion

This strategy has literally changed the way lectures occur in our classrooms. Students are engaged and motivated as the picture takes shape before their eyes. We have found that many students either draw the illustration along with us, or take a picture of the illustration with their cell phones. They also request that we post all the pictures on our websites because "it helps us study." We have used this strategy to teach many concepts in literacy, such as the phonological umbrella, the differences between analytic and synthetic phonics, and the bell-shaped curve. Students looked forward to the informational illustration and exhibited excitement when they came into the class and poster paper was draped across the white board. Students in our classes consistently mentioned informational illustrations in their exit slips and evaluations as one of the favorite methods for presenting information. One student stated, "I love the story boards and creative approach to the lessons . . . helps me understand and remember."

The most challenging part of this strategy is figuring out how to represent the concept visually, as not all topics lend themselves easily to this idea. When this occurs, it is often necessary to embed the concept/idea in a picture book or other experience that is shared with students. For example, to represent an analytic approach to teaching reading, we drew Mrs. Wishy-Washy from Joy Cowley's book, as we had previously used *Mrs. Wishy-Washy* to illustrate this type of approach for teaching phonics. In this way, a picture from the story or of the experience can serve as the illustration of the concept/idea, helping students to connect their experiences with the concepts being studied and modeled. In addition, if drawing is not your forte, simply find a picture from the Internet that illustrates your concept and project this image onto a smartboard or projection screen. Then, drape a large piece of chart/butcher paper over the image, and lightly trace in pencil. In our experience, this alternative to PowerPoint has been an equal or better way to present foundational concepts to students. The overwhelming belief by students is that these visual lectures help them to retain the information better.

Supporting Materials

Our examples in Figure 1.3 are finished products taken directly from our teaching in a comprehensive literacy course for preservice teachers.

References

Kucer, S. B. (2005). *Dimensions of literacy: A conceptual base for the teaching of reading and writing* (2nd ed.). Mahwah, NJ: Erlbaum.

Troje, N. F., & Giurfa, M. (2001). Visual representations for memory and recognition. In N. Elsner & G. W. Kreutzberg (Eds.), *Proceedings of the 28th Göttingen Neurobiology Conference* (Vol. I, pp. 608–613). Stuttgart, Germany: Georg Thieme Verlag.
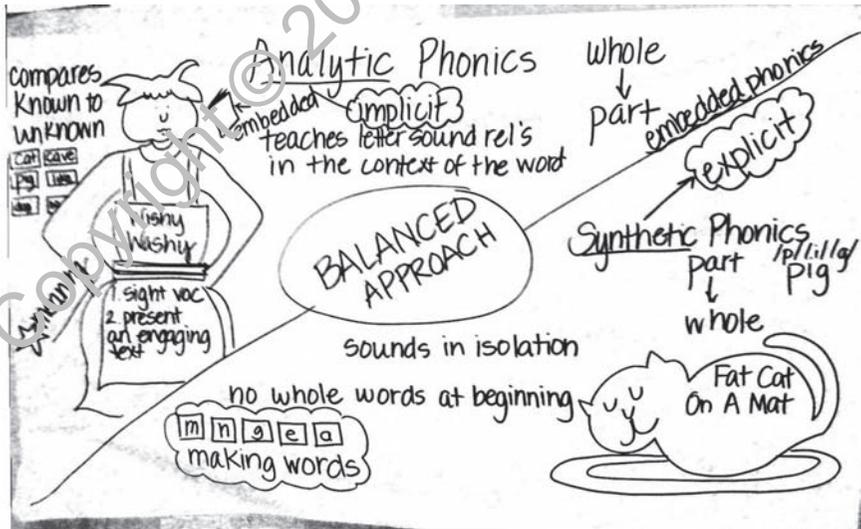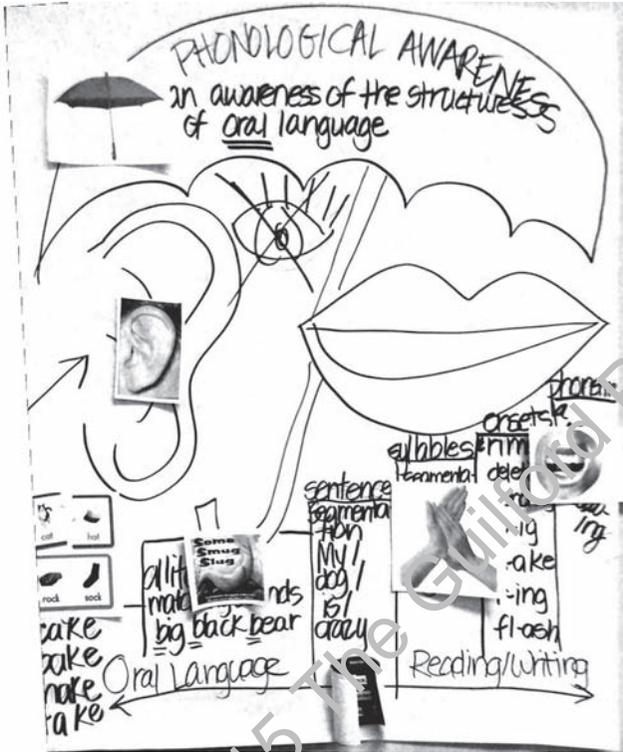
FIGURE 1.3. Examples of informational illustration charts.

ACTIVITY 1.4
Connecting Theory to Practice:
Taking Stock of Who Sits on Your Shoulder
KATHY GANSKE

Activity Type: In-class activity.

Materials: N/A.

Duration: N/A.

Professional Learning Focus: Solidify understanding of research and theory through application to classroom practices; realize the dominant philosophical stance that is influencing instructional decisions; determine one or more ways to use the knowledge acquired about research to practice connections to impact future teaching.

K–8 Student Learning Focus: N/A.

Standards Links

IRA Professional Standards:
1.1 Recognize major theories of reading and writing processes and development, including first and second literacy acquisition and the role of native language in learning to read and write in a second language.

Explain the research and theory about effective learning environments that support individual motivation to read and write (e.g., choice, challenge, interests, and access to traditional print, digital, and online resources).

2.2 Select and implement instructional approaches based on evidence-based rationale, student needs, and purposes for instruction.

Common Core State Standards: N/A.

Rationale

Teachers should know which research and scholarly writings ground their practice, as this is part of what it means to be an informed decision maker and a professional. The knowledge can also serve as a powerful tool when someone challenges a choice of approach, text, or strategy that is being used. This learning activity provides opportunities for teachers to apply their understandings of theory to their practices. The title of the activity alone demystifies what for some can be intimidating—learning about theorists and models and delving deeply into scholarly writings. In my experience, teachers have often read about theories as "over-there matter," not something that touches their daily teaching lives in significant ways. Teachers with whom I've used this activity have viewed the experience as eye-opening and have acquired a heightened identity of who they are as teachers through their completion of the activity. They've come away considering ways to incorporate more of the practices they value into their daily teaching, even in the use they are expected to make of mandated materials and practices.

Description

For this activity teachers take stock of their teaching, materials they use, students' learning (assessments), and the classroom environment to increase their awareness of the everyday influences of scholars whose work they've read and learned about. The activity assumes that (1) teachers have a working knowledge of several different reading/learning theories, and (2) there has already been modeling of the process and a small-group work through. Although I use the activity with graduate students who are teaching in challenging urban middle schools, the activity could easily be used with elementary or secondary students at the graduate or undergraduate level. For students in initial licensure programs, the activity might be used as part of a practicum experience.

1. *Identifying aspects of teaching/learning to explore*. Ask teachers to brainstorm a list of some of their practices (strategies or approaches, such as think-aloud or Book Club), materials (such as leveled texts or word sorts), assessments, and aspects of their classroom environment (such as a reading corner). Provide time for them to share their lists with a partner or small group. This sometimes generates additional overlooked possibilities. Next, ask them to choose seven of the practices to explore. Among those selected, there must be at least one materials item, one assessment, one selection related to the classroom environment, and at least two strategies or approaches. Distribution of the other two selections is a personal choice. For each practice, material, assessment, or context chosen, teachers are expected to:

- Identify the item or practice and describe it so that a reader can clearly understand what is being talked about; incorporate into the discussion at least one photo or photocopy of what was chosen.
- Explain which theory, model, and/or research the selection exemplifies. The explanation should include a detailed rationale that clearly expresses the teacher's thinking and makes explicit connections to relevant characteristics of the research.
- Provide evidence for a dominating influence but should also show that teaching and learning are influenced by multiple scholars.

2. *Philosophical stance: Who does sit on your shoulder?* After describing and providing a rationale for each of the selections, teachers synthesize what they've learned/discovered about their teaching and their teaching environment. The synthesis should:

- Reveal what is at the core of the teacher's philosophy of teaching. What matters, and why? (In teaching situations where mandated practices are pervasive and represent different groundings than those of the teacher, teachers may have to think deeply about how the scholars who sit on their shoulders nonetheless influence their practice).

- Demonstrate how knowledge gained through the activity will be used to impact future teaching and learning.
- Include references to relevant texts and theorists read.

3. *Follow-up*. Designate a class session to sharing and discussing teachers' discoveries and questions.

Discussion

I think part of the strength of this activity for forging research/practice connections lies in its authenticity—from the modeling to teachers' own taking stock of what goes on in their classrooms. Teachers experience the same sort of excitement and sense of "Eureka!" as I did when they find that the "over-there matter" is really right there in their classrooms and teaching. In her project, Aubrey Kuppler, a teacher in the course, highlighted an activity she asks students to complete as a means for raising their consciousness about the role that literacy plays in their lives and futures—they write and illustrate why they need reading for the career they want as an adult. In her explanation she wrote:

> Although I didn't know it at the time, I was engaging the students in the criti-
> cal literacy theory practices of Freire linking the ability to read to success in
> a career as an adult. Before this semester, I have always discussed with my
> students the need to be able to read and write to be successful in life. This
> activity is one example of the students in fifth grade completing an activity
> that was developmentally appropriate for them to think and internalize the link
> between literacy, power, success, and financial success as an adult.

In her synthesis the same teacher said:

> "I have to admit that I learned something about myself through this
> assignment. While I have been teaching for four years, I have never
> looked at my teaching through the lenses of theorists. . . . It is just
> jumping out at me that I am a teacher that uses the social learning
> perspectives to plan and facilitate my classroom. My hope is to con-
> tinue to release the learning to my students by implementing more
> and more social learning theory practices in my classroom."

Such testimonials are common among the projects and speak to the fact that, although it may be challenging to build theory to practice connections, there are ways to bring it about and ways that are not only effective but also engaging and meaningful to teachers.

WRITING PROCESSES

What Is It?

Writing is the means by which one's thoughts and feelings become visible through written language. Writing is thus intimately personal—a means for self-expression and reflection, a tool that can be used to organize one's thoughts and extend memory. On the other hand, it is ultimately social—a communicative act with the capacity to enlighten and entertain others, with the power to topple governments and transform our worlds. Writing, then, serves multiple purposes. As Graham, MacArthur, and Fitzgerald (2007) remarked, "Writing is a powerful tool for getting things done" (p. 2).

What Do Teachers Need to Know?

Writing processes are multifaceted, involving physical, cognitive, affective, and social processes. Teachers who understand the complexities of writing processes will better understand how to meet the learning needs of their students.

Complex Cognitive Processes

Beginning in the 1970s, writing researchers attempted to understand writing processes by asking adults to think aloud as they wrote (Graham, 2006). One outcome of this early research, the Flower and Hayes (1980) cognitive processing model, hypothesized numerous mental operations that occurred during composition, such as retrieving knowledge of topic and audience from long-term memory, generating ideas, rereading text already produced, and monitoring one's progress. An important aspect of this theory is that these subcomponents can influence one another in ways that can inhibit or enhance writing.

Building on his own and others' research, Hayes (1996, 2006) revised the model adding motivation/affect, work with collaborators, social contexts, and writing tools. Current understandings, further building on these early cognitive models, suggest that strategies (such as brainstorming ideas) consciously selected by writers work in conjunction with foundational skills—those abilities that are typically automatic in proficient writers, such as handwriting and spelling.

Social Processes

Although writing demands complex cognitive processes, it is actually the social and communicative contexts that drive an individual's writing. Social contexts and/or discourse communities (Gee, 1999) determine the purposes and forms for most of our writing. For example, almost all of us could identity a recipe at one glance and describe its purposes. Written products are social artifacts for which there are inherent purposes and audiences. Sociocultural theorists argue that writing is collaborative even when a writer appears to be writing on his or her own as the lone writer is utilizing an "array of sociohistoric resources . . . that extend beyond the moment of transcription and that cross modes and media" (Prior, 2006, p. 58). Writing is fundamental to ways of being and doing in our society.

Challenges to Developing Writing Proficiency

Scardamalia and Bereiter (1991) have argued that developing writing proficiency is one of the most difficult academic expectations. Foundational skills such as handwriting, spelling, and written conventions take years of instruction and practice to master. For most children, composition strategies must be explicitly taught (Graham, 2006; Graham et al., 2007). Furthermore, foundational skills and composition strategies interact. For example, trouble with handwriting (use of writing tools) were found to affect students' perseverance in writing (Berninger & Swanson, 1994).

Given the complexities of writing, Scardamalia and Bereiter (1986) theorized that writing can occur at two levels: (1) *knowledge telling*— essentially connecting one thought with another as they sequentially come to mind and writing them down; and (2) *knowledge transformation*— a problem-solving process as one engages in composition of particular texts. As a problem-solving activity, writing is viewed as an open-ended task that can be continually improved rather than mastered. Writers must self-regulate and persevere in the face of the challenges in writing. Highly complex and interrelated composition processes, coupled with the demands of writing for particular purposes and audiences, require sophisticated instructional approaches. These may include teacher direction, strategy instruction and practice, and supportive learning environments.

DEVELOPMENTAL PROGRESSIONS OF LITERACY

What Is It?

Literacy—understandings about the functions of print and the ability to write and read—develop in predictable ways beginning in infancy and continuing throughout the lifespan.

What Do Teachers Need to Know?

Practice and Guidance

Just as in any complex endeavor, an individual needs a great deal of practice to become highly proficient in reading and writing. Ongoing practice with literacy processes is central to children's development. Children need to read in order to learn to read; they need to write in order to learn to write.

Literacy development is fostered by active engagement on the part of students, but it also requires active teachers. Ongoing practice needs to be guided and scaffolded to optimize development. Children cannot be left to guess at or intuit complex and invisible mental processes or social purposes on their own. Literacy development needs to be supported by thoughtful instruction (Coker, 2007).

Teachers play critical roles in children's development as they engage students in reading instructional-level texts, foster engagement with purposeful writing activity, and provide explicit instruction and modeling that gives children a window into invisible literacy processes. They assess for, plan, and implement effective literacy instruction differentiated for students' developmental levels.

Development Occurs on Multiple Aspects of Literacy

Literacy development occurs simultaneously on physical, cognitive, social, and affective levels. For instance, children need continued opportunities to practice foundational skills and strategies at the same time they are developing understandings of social purposes and personal appreciation for reading and writing. Learning-to-read instruction does not end in third grade. Both spelling and writing process skills develop over several years.

Development of some aspects of literacy, such as letter–sound knowledge, concepts about print, and fluent letter formation are skills with a limited set of items—usually mastered with a year or two with instruction. Most need to become automatic. Constrained skills (Paris, 2005) are necessary foundational skills for fluent reading and writing, but do not guarantee either comprehension or construction of written text.

In contrast, development of vocabulary, ability to comprehend and interact deeply with text, and effective use of writing processes and strategies are open-ended skills and processes that continue to grow throughout a reader's life. Development of understandings and strategies specific to comprehension and writing processes, as well as understanding the power and purposes of reading and writing, can serve as tools that foster lifelong literacy development, as the scaffolding is released.

Predictable Patterns of Development

Both reading and writing develop in predictable patterns with recognizable features and milestones. From Chall's (1996, cited in McKenna & Stahl, 2009) six-stage model of reading development to Bear's (Bear, Invernizzi, Templeton, & Johnston, 2012) synchronous model of literacy development to Chapman's (1997) continuum for writing development, designating specific patterns of development can be helpful in understanding individual progress. Spear-Swerling (2004) has even developed a highly informative "road-map" diagram that shows how and where readers can get off track to become reading disabled.

Understanding the typical progression of knowledge and skills enables teachers to avoid unreasonable expectations and to plan instruction that will be within the learning reach of a child. However, while stages can provide insight into children's development, there will always be individual variations.

Importantly for teachers, patterns of development are visible as children learn to speak, listen, read, and write. What a child uses, doesn't use, or uses but confuses (Bear et al., 2012) provides a window into that child's developmental level. Knowing what to expect, coupled with close attention—noticing, reading, and listening to children's voices—and appropriate assessments, enables teachers to view children's errors not as mistakes but as insights into their current thinking and to celebrate and acknowledge the partial understandings that children demonstrate as important steps in learning to read and write.

Literacy Beginnings

Literacy development is a lifelong process that begins long before children come to school. In modern societies, children are surrounded by letters and words—on television and T-shirts; on storefronts and street signs; on cereal boxes and toothpaste tubes; and in books, e-readers, and cell phones. Literacy development begins with young children's first efforts at making sense of those ubiquitous symbols, and in their imitations of the literacy practices of their home and community. Creating meaningful representations through drawing are considered precursors to beginning writing (Dyson & Freedman, 1991). Children who see their parents reading or making shopping lists will do the same as they pretend to read to their dolls or scribble make-believe lists.

These early approximations demonstrate young children's understanding of the symbolic nature of print, and their desire to enter what Frank Smith termed "the literacy club" (Smith, 1988). Children who are encouraged in their explorations of print ask many questions about the print they see, and conduct their own explorations with writing. One of us fondly remembers her 5-year-old bringing strings of letters she had written and asking her to read them. When she said, "It doesn't really say anything, but this is what it would sound like," and uttered a string of nonsense sounds, they both had a good laugh. This child-initiated game was helping her child to gain important insights into how print in an alphabetic language works—not every group of letters represents a word, yet the letters provide information about sounds. Through their explorations, young children can develop important insights into how print works. They discover such things as the message is meant to communicate something, the message stays the same time after time, the directional principles of the language, and that longer spoken words require more letters (Clay, 1975).

In this emergent phase, where children are gaining the preliminary understandings that enable conventional reading and writing to develop, reading and writing are interconnected reciprocal processes. Although many of us used to think that children learned to read first and write later, many young children learn to read through writing. Children encouraged to use "invented spelling" gain extensive practice in connecting sounds to the letters that represent the sounds. Early attempts at writing often enable children to learn the conventional spelling of high-frequency words, knowledge that supports them in reading their first little books. Alternatively, some children learn the spelling of

high-frequency words such as *the*, *like*, or *can* when an adult points to the words he or she is reading during shared reading of enlarged print in the classroom or lap reading at home, and bring the conventional spellings into their writing. Understanding the importance of early literacy experiences helps teachers value and build on the literacy knowledge that children bring with them from home.

Concepts of Print

Every written language follows conventions regarding the direction that the printed words are read, and has means of representing phrasing and tone through punctuation marks, print size, and density. Children need to understand these conventions in order to read and write. In English, we read left to right with a return sweep to begin the next line. Understanding and being able to consistently use the left-to-right pattern within words as well as across the page is a critical development for learning to read and write. Teachers may not realize they need to intentionally teach directional principles because it is so instinctive.

Another key early understanding is concept of word (sometimes abbreviated as COW). In oral language words are strung together with no separation. Children must grasp where the individual word breaks are, understand that in print these breaks are indicated with white space, and be able to match a spoken word to the written word, even if they cannot yet perceive all of the letters individually. Fingerpoint reading, where a child can accurately match a memorized text to the groups of letters on the page, is a major milestone in literacy development, and an absolute prerequisite to conventional reading. Sometimes young children confuse syllables with words, and can be observed pointing to two groups of letters when they say a two-syllable word.

Phonological Awareness

Young readers in alphabetic languages need to learn how letters map to the sounds of their language. To be able to map the sound in words to the letters and groups of letters that represent those sounds, a prospective reader/writer must develop the insight that words not only have meaning but that they also are composed of sounds. Typically, children are first able to hear, identify, and manipulate words; then, beginning sounds and rhymes; and finally, individual phonemes. This awareness enables them to understand the alphabetic principle—that each sound is represented

by a letter or a combination of letters—and opens the gate to decoding. Phonological awareness is also a milestone because it marks the first instance of language metacognition: the ability to think about language apart from meaning.

Word Recognition and Production

From drawings and preconventional scribbles to phonetic spellings to fluent conventional spelling, children's early word production is striking (Chapman, 1997).

Ehri's widely accepted explanation of how readers at different levels of experience and proficiency identify written words (Ehri, 1998) is very helpful to teachers who work with beginning or struggling readers. The typical developmental path moves from prealphabetic or logographic readers who identify words based strictly on context ("McDonald's") and write a combination of pseudoletter forms and real letters, as in the script for a play written by a kindergarten child in Figure 1.4; to partial
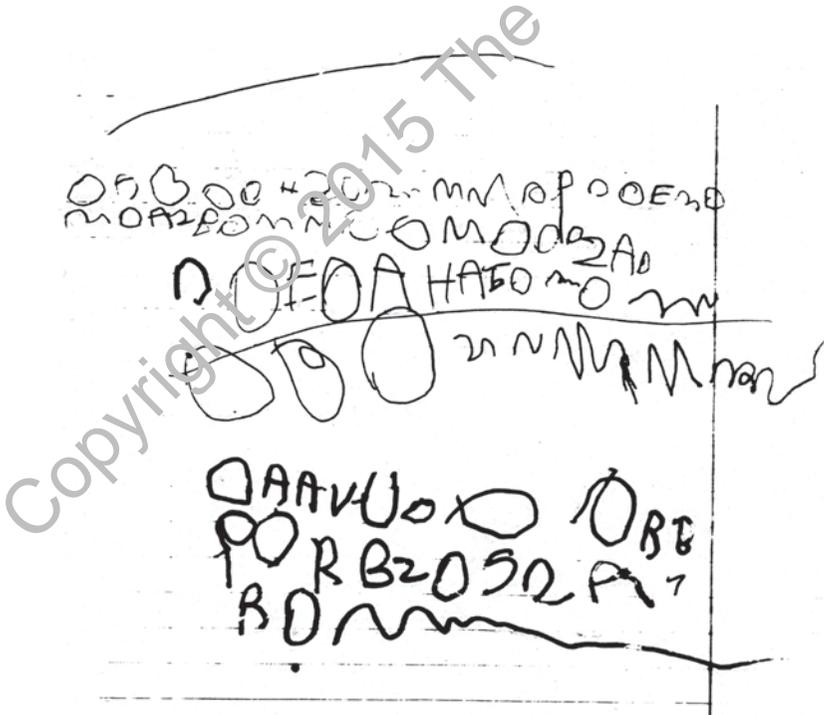

FIGURE 1.4. Script for a play by a kindergarten child.

alphabetic readers who do not use all of the letters to identify and write new words (e.g., *baby* might be spelled as BB), as in the "tree house" story in Figure 1.5; to full alphabetic readers who are able to read and write words by assigning each sound to a letter or letter pattern (e.g., spelling *baby* as BABE), decoding letter by letter as in the "first-grade" story in Figure 1.6; to consolidated readers who can use multiletter chunks and correctly spell most words; to automatic readers who can quickly identify and write most words that they see in text (Ehri, 2005). While a young reader might have a dominant mode for identifying unfamiliar words, readers at all levels read words automatically once the word is sufficiently familiar (Share, 1999). Children experiencing difficulty learning to read are often stuck in the partial alphabetic or full alphabetic mode of reading words; they have trouble developing fluency in word identification that results in a slow, laborious and unfulfilling reading experience.

As Stanovich (1986) pointed out in "Matthew Effects in Reading: Some Consequences of Individual Differences in the Acquisition of Literacy," those individuals who learn to read relatively easily in the early grades find reading a pleasurable activity, and can read with relative fluency. Those children choose to read, and gain further reading proficiency as well as vocabulary and knowledge growth through their reading. Their vocabulary and knowledge then supports them in reading more difficult text. In contrast, the children who struggle to figure out the words on the page find reading laborious and unrewarding. These children often avoid reading, or read so slowly they are not exposed to as many words during a reading session as their more able peers, leaving them further and further behind. Ironically, the individuals who have
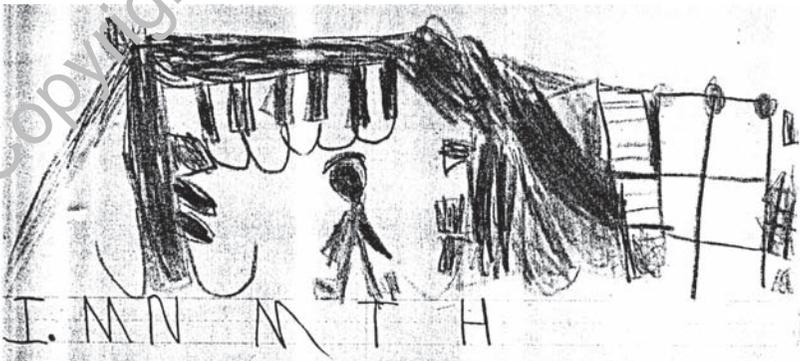
FIGURE 1.5. "I am in my tree house," by a kindergarten child.

FIGURE 1.6. "I am in first grade. I am learning how to read."

more difficulty learning to read need *more* practice than their faster progressing peers to attain the same level of proficiency, yet these are precisely the children who typically read less.

Development of Comprehension

Reading development models describe a progression of capacity to understand, describe, analyze, evaluate, discuss, and synthesize increasingly complex text across an array of genres. Readers are expected to become increasingly strategic in the ways they make sense of text, monitor their understanding, read different kinds of text, and see connections across different texts. In fact, central to the Common Core State Standards (CCSS) for reading are expectations for increased text complexity from kindergarten to 12th grade, along with increased expectations to understand and interact with text and across texts.

Long-term support of comprehension development is critical to development of readers' abilities to construct deep understandings of texts and meet the CCSS. Supportive classroom contexts, explicit strategy instruction, teacher modeling, guided practice, independent practice, and high-quality discussion are important components of instruction that support the development of comprehension processes (Duke & Pearson, 2002).

Development of Composition

Children's composition begins in visual representations of thoughts. Coupling of drawing and writing is typical to the language experience

approach and in kindergarten writing journals. Drawing and visualization precede the generation of language in these instances.

As they develop understandings of and skills with writing processes and strategies, children move in a "progression of refinement from more unconventional and gross approximations to more conventional and specific ones" (Chapman, 1997, p. 28).

Learning to compose is challenging, as children must develop understandings of communicative purposes for writing, ability to write in various genres, and effective utilization of writing processes and strategies, as well as fluency and automaticity with handwriting and conventions. Even as a first grader writes one simple sentence, he or she will need to retrieve memories or ideas; consider his or her teacher's (audience) expectations; grapple with sentence organization, as well as spelling, letter formation, and spacing; and use conventions of capitalization and punctuation (Coker, 2007). Thus, depictions of developmental patterns in writing, such as that designed by Chapman (1997), typically list several development components along a continuum of stages—such as beginning, emergent, developing, consolidating, and expanding writer—along with typical age levels.

Social contexts are also considerations for writing development. Understanding and utilizing concepts of audience awareness, as well as features, formats, and communicative purposes of written genres, are important to development of effective writers. Furthermore, agency—willingness to take risks, expose one's thoughts and feelings, and develop one's voice in writing—is important to writing development. Children need to develop a sense of themselves as writers in their worlds, using writing to serve important purposes.

NEW LITERACIES

What Is It?

Bound books, the printing press, ballpoint pens, and the typewriter are examples of technological changes that have influenced the ways in which written language is created and consumed in society. The advent of the computer and the World Wide Web—the most recent technological advances in written language—have created changes of historic magnitude. Technology is rapidly changing the intensity and complexity of literate environments (National Council of Teachers of English [NCTE], 2008). Both multimodal and highly social genres (e.g., texting and

tweeting) have profoundly influenced how and where we access information, as well as expanding access to audiences. Through the Internet, immediate communication with individuals from other cultures around the world provides rich opportunities for learning about diversity.

What Do Teachers Need to Know?

Attitudes, Knowledge, and Skills

To help students achieve the "literacies of their future" (Leu, 2002, p. 310), instructional practices will need to shift (International Reading Association [IRA], 2002). The NCTE (2008) has set standards for sophisticated digital literacy skills needed by readers and writers. These include:

- Develop proficiency with the tools of technology.
- Build relationships with others to pose and solve problems collaboratively and cross-culturally.
- Design and share information for global communities to meet a variety of purposes.
- Manage, analyze, and synthesize multiple streams of simultaneous information.
- Create, critique, analyze, and evaluate multimedia texts.
- Attend to the ethical responsibilities required by these complex environments.

Preparing children for literacy in the digital age involves embracing and envisioning new ways of reading and writing, as well as knowing strategies for using and managing digital tools and resources. Developing one's own knowledge and skills around digital literacies—in collaboration with students' literacy development—is important to effective literacy instruction.

Changes to Written Products

Digital technologies have opened up a wide array of possibilities for written representations. In fact, regular change is regarded as one aspect of new literacies (Leu, 2002). Text, visual representations, and sound intersect in digital genres in ways that can contribute to rich multimodal products. Information in new genres may be linked rather than linear. Conventions of language have already been altered, such as in texting, to match to new purposes and ways of communicating.

Changes to Literacy Processes

Despite the changes wrought by digital literacies, it is important for teachers to know that "new literacies build on, but do not usually replace previous literacies" (Leu, 2002, p. 315). Reading and writing are even more important in the digital world. On the other hand, important changes have already occurred in digital literacy processes. For instance, rather than turning to the next page while reading for research or information, readers employ various strategies to search through the nonlinear text organization to find relevant information and construct meaning (Coiro & Dobler, 2007). Ability to evaluate trustworthiness of websites and information has become critical, placing new demands on readers' abilities to find, evaluate, and select a seemingly limitless amount of information. As computer tools and emerging genres add visual and auditory layers to the final products, writing in new digital genres will require more complex ways of generating and organizing ideas in multimodal products. With the Internet, issues of audience and authorship take on new meanings.

ACTIVITY 1.5
Literacy Research Position Statement: Deepening Knowledge, Finding Voice

ANTONY SMITH

Activity Type: Assignment with in-class components.

Materials: N/A.

Duration: Semester project; two 30-minutes sessions in class, middle of semester; 60–90 minutes during the final course session.

Professional Learning Focus:
- Read and analyze current literacy research.
- Synthesize research on a literacy topic relevant to practice.
- Develop purpose, audience, and voice in persuasive writing.

Standards Links

IRA Professional Standards:
1.1 Candidates understand major theories and empirical research that describe the cognitive, linguistic, motivational, and sociocultural foundations of reading and writing development, processes, and components.

Common Core State Standards: Writing Anchor Standards

Text Types and Purposes
1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

- Develop leadership and perspective as a learning community member.

K–8 Student Learning Focus:
- Understand elements of persuasive writing, with a specific focus on argument and supporting claims with evidence.
- Understand importance of establishing purpose and identifying audience as part of the writing process.

2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

Production and Distribution of Writing
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Research to Build and Present Knowledge
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

Rationale

In a time when the terms *research based* and *evidence based* are used often and found in a variety of curriculum and instructional materials, it is important for teachers to develop a deep knowledge of literacy and become critical consumers of research. This knowledge, developed in tandem with a critical inquiry stance toward research, helps teachers ground instructional practice and fosters a sense of empowerment. Many of my students (who are also classroom teachers) come to class eager to explore issues and questions related to their school contexts, instruction, and students. Through a process of analyzing and synthesizing research on chosen topics, teachers have the opportunity to deepen their literacy knowledge and articulate this knowledge by crafting position statements that are meant to be shared with real audiences.

Description

The position statement assignment is a culminating project for a master's-level research seminar that is part of a reading endorsement program. Below I outline steps to introduce and model this assignment so that teachers are prepared to compose their position statements and then read them aloud on the last day of class.

1. In the first class session I have students read the annual "What's Hot, What's Not" feature of *Reading Today* and other IRA publications (e.g., Cassidy, Valadez, Garrett, & Barrera, 2010) to begin thinking of specific literacy research topics to explore across the semester. This exploration, which includes facilitating research-article discussions and creating an annotated bibliography, culminates with the position statement assignment. Teachers choose their topics early and dig deep.

2. About two-thirds of the way through the semester, once teachers have gained experience reading and analyzing research articles and assembled their annotated bibliographies, I use about 30 minutes of class time to introduce the position statement assignment:

- First, I share the basic criteria of the genre, including a clear position on a topic, an authentic audience, the need to support claims with specific evidence, that the statement be concise (two to three pages), and that the statements will be read aloud.
- Next, I hand out example position statements from IRA and NCTE. Teachers review these statements in class, discussing their observations and reactions in small groups.
- Finally, I share some of my own ideas about position statement topics and audiences and then prompt teachers to brainstorm ideas in small groups.

3. During the following class session, I take another 30-minute period to share and discuss a draft position statement I composed, one that examines oral reading fluency as a measure of formative assessment. Teachers discuss my example, ask questions, and brainstorm in small groups to come up with a list of essential criteria for the position statement assignment. Typical criteria include:

- Clear topic and purpose.
- Statement of a position—choose a side.
- Importance of the issue.
- Background information on the issue.
- Support for the position—three or more references.
- Future of the issue.
- Classroom implications.
- Identified audience.

4. After brainstorming these criteria, I prompt teachers to consider connections between this assignment and the kinds of writing projects they assign their students. We discuss elements of persuasive writing, ways to use details to support claims, and how to back up statements with evidence. I show examples and interactive lessons from the website *readwritethink.org* to facilitate this discussion.

5. On the last day of class, teachers come prepared to share their position statements. One by one, without interruption, each teacher stands at the lectern,

identifies his or her intended audience, and reads the statement to the class. I have found that this process takes approximately 5–8 minutes per teacher. After everyone has shared, I facilitate a discussion exploring themes and ideas that have emerged from the statements. We also debrief the experience of reading a piece of our own writing aloud to an audience. Finally, we outline next steps in sharing our statements with their intended audiences outside of class.

Discussion

While most teachers have opinions about various literacy topics, these opinions are not always supported by research. The position statement allows teachers to ground their ideas in research and to develop an informed position on a topic of importance. This assignment also helps teachers establish connections to school and classroom contexts by identifying a specific audience for their statement and actually sharing it with this audience after completing the course. One outcome I have observed is a strong sense of voice teachers develop as they craft their position statements. Here is one excerpt that illustrates the strong sense of voice that comes through in teachers' statements:

> "The explicit inclusion of instruction centering on expository text is necessary in the elementary grades. Students must have expository skills in order to meet the expectations set forth in content-based classes in later grades. Modeled and guided instruction on text structure in conjunction with exposure to a multitude of texts and an emphasis on its value are pivotal, and should therefore be regularly present in all elementary classrooms." (Chris, elementary school teacher)

Another outcome is a palpable feeling of empowerment among teachers, a feeling that encourages them to become leaders and active members of school or district professional learning communities. One primary grades teacher, for example, chose reading fluency as her topic, writing a position statement for the purpose of communicating assessment concerns to other teachers and the school principal. Another teacher wrote his position paper on adolescent student reading motivation, with the goal of using it to initiate discussion among his middle school peers teaching language arts. During the following semester, these teachers stopped by my office to let me know they had shared their statements with these audiences. They both felt they had the knowledge base and critical inquiry stance to support their position and articulate their ideas. Both were excited to help facilitate meaningful discussion and promote change.

Feedback on course evaluation forms indicates an appreciation for working through challenging research articles, developing deep literacy knowledge, and articulating an understanding of this knowledge through the position statement assignment. After teaching this seminar many times, what I always appreciate

most is a rather sudden transformation I have observed of teachers' experience: from nervous anxiety to informed confidence. I can't think of another assignment that fosters such a sense of empowerment through just a few pages of writing!

Supporting Materials

Syllabus Project Description

This paper is a statement you make on one of the literacy research issues considered over the quarter. Using course readings, class discussions, peer-annotated bibliographies, and information you have gathered on current trends in literacy research, you will craft a statement asserting your position on this issue. This position will need to be supported by readings and discussions. The audience for this statement could be the parent community at your school, the school board of your district, a local newspaper editorial page, or a local or state-level elected official. Your finished paper should be two to three pages in length, double-spaced (not including references). You will share this position statement by reading it aloud on the last day of class.

Example Position Statements Used in Class

- NCTE Position Statement on Writing Assessment.
- NCTE Position Statement on Reading.
- IRA/National Middle School Association (NMSA) Position Statement on Young Adolescents' Literacy Learning.

For Teaching the Position Statement Genre to Students

- Persuasion map interactive at *readwritethink.org*: *www.readwritethink.org/files/resources/interactives/persuasion_map.*
- Position Statements outline from *readwritethink.org*.

Position Statement Scoring Criteria

Statement
- Statement of the position is clearly articulated.
- Importance of the issue and the position is justified.
- Supporting points are identified and discussed.

Issue
- Background information on the issue is included.
- Future of the issue is addressed.
- Classroom implications are noted.

Audience, Format, Style

- Specific audience is identified.
- References and reference list (with proper American Psychological Association style) are provided.
- Maximum three pages (not counting references) double-spaced, read with authority and conviction.

References

Cassidy, J., Valadez, C. M., Garrett, S. D., & Barrera, E. S. (2010). Adolescent and adult literacy: What's hot, what's not. *Journal of Adolescent and Adult Literacy, 53*(6), 448–456.

National Council of Teachers of English. (2008). NCTE Framework for 21st century curriculum and assessment. Retrieved from *www.ncte.org/library/NCTEFiles/Resources/Positions/Framework_21stCent_Curr_Assessment.pdf*.