



Early Childhood Literacy Development

Program Research Base



Wright Group

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Early Childhood Literacy Development

Early childhood covers the period from birth through age 8. During these first years of life, children move from being totally dependent on adults for virtually everything to being quite self-reliant in a number of respects. Their language and literacy development likewise develops significantly during these eight years. Biological and sociocultural factors combine, so that typically around the age of one, the babbling that had begun between four and eight months develops into recognizable words (usually objects or actions in the real world), and by the time they are eight most children have vocabularies of several thousand words, readily talk in complex and compound sentences, can produce the entire range of speech sounds in the one or two (or more) languages they are speaking, carry on meaningful conversations with adults and peers, follow fairly complex instructions with little or no repetition, and much more (Baron, 1992). So, too, with the development of the ability to process written language. Most children age 4 or younger cannot read any of the printed words in the texts they encounter in their environments unless the texts were read to them previously, whereas most 8-year-olds have figured out the alphabetic principle and can read fluently a range of texts appropriate to their age level (Chall, 1996b).

This white paper addresses the literacy development of children from kindergarten through second grade. **LEAD21** focuses on literacy—rather than merely on reading—because learning to read is so closely related to learning to write during this period. This is evident in two areas of reading-writing connections: comprehension-composition and decoding-spelling (Shanahan, 2006).

As well as stressing the connections between reading and writing when we discuss early literacy development, it is important also to pay close attention to oral language learning. Oral language is, of course, vital in and of itself during children's early years, but here we examine how it relates to children's progress in reading and writing from age 4 through age 8.

During the last few decades especially, a robust body of scientifically based research has accumulated on the topic of early literacy learning (Neuman and Dickinson, 2003; Dickinson and Neuman, 2005; NELP, 2008). As a result, we currently know a

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considerable amount about this phase of reading/writing development and have developed and tested a range of instructional methods for teaching early literacy. Much remains to be learned about early reading and writing instruction, but in many respects we have more scientific knowledge about this aspect of young children's education than any other.

It is helpful to think of the literacy learning taking place during this period as occurring in two phases, or stages, of development: Emergent Literacy and Conventional Literacy (Teale, 1995). In what follows, we examine children's literacy knowledge, skills, and dispositions in each of these phases, specifically noting how **LEAD21** has incorporated the classroom instructional environments and teaching strategies that research has shown to be effective in helping children develop into capable and engaged readers and writers across the years from kindergarten through grade 2.

Emergent Literacy

What is emergent literacy? Children typically begin kindergarten in what we call the emergent phase of literacy development. Emergent literacy refers to the reading and writing concepts, behaviors, and dispositions that precede and develop into conventional reading and writing. As Sulzby and Teale (1991) noted, the term *emergent literacy* signals a belief that, in a literate society, all preschool children are in the process of becoming literate because they interact with print in a variety of ways in their home and school environments. The important point here is that literacy learning does not need to wait until children have mastered some set of readiness skills, developed a particular level of social-emotional readiness, or are a certain age. All five-year-olds are by no means at the same point in their knowledge, skills, and dispositions related to emergent literacy when they begin kindergarten, but all of them are in the process of becoming literate.

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What is involved in emergent literacy learning? We often think of the beginnings of literacy development as being about learning the letters of the alphabet, sounds associated with letters, and concepts of print like left-to-right and top-to-bottom directionality. All of these are central dimensions of emergent literacy learning, but it is equally important to recognize that research from the 1980s (Sulzby and Teale 1991) and work of subsequent decades summarized in the first two volumes of the *Handbook of Early Literacy Research* (Neuman and Dickinson, 2003; Dickinson and Neuman, 2005) and the book *Literacy and Young Children: Research-Based Practices* (Barone and Morrow, 2002) indicate that emergent literacy development is characterized by the following principles:

- Literacy develops in real-life settings for real-life activities in order to “get things done.” Therefore, young children’s understanding that literacy is meaningful and purposeful (and not merely an abstract skill to be learned) is a critically important part of learning to read and write. This implies that instruction in PreK, Kindergarten and even Grades 1 and 2 should embed reading and writing in purposeful activities as much as possible so that children learn skills and strategies within meaningful contexts, not in isolation.
- Children learn written language through active engagement with their world. They interact socially with adults in writing and reading situations; they explore print on their own, and they profit from modeling of literacy by adults and older children.
- A broad range of knowledge, dispositions, and strategies are involved in young children’s becoming literate.

The recent meta-analysis of research conducted by the National Early Literacy Panel provided a rigorous analysis of what experimental and quasi-experimental research indicates are the factors at the preschool and kindergarten ages related to the knowledge, dispositions, and strategies associated with later success in reading and writing (NELP, 2008). A meta-analysis is a quantitative summary of the existing empirical studies on a topic. The Panel’s review of approximately 500 studies indicated that the following factors all had “medium to large predictive relationships with later measures of literacy development...even when the roles of other variables, such as IQ or socioeconomic status (SES), were accounted for” (p. vii):

- alphabet knowledge of the names and sounds associated with printed letters
- phonological awareness: the ability to detect, manipulate, or analyze the auditory aspects of spoken language (including the ability to distinguish or segment words, syllables, or phonemes), independent of meaning
- rapid automatic naming (of letters, digits, objects, or features such as colors)
- writing: the ability to write letters in isolation on request or to write one’s own name
- phonological memory: the ability to remember spoken information for a short period of time (p. vii)

The NELP Report provides numerous insights into the nature of emergent literacy and instruction that aids development, but because of its specific research questions—and its methodological and content focus related to those questions—it is important to realize that the NELP results provide only part of the picture of emergent literacy development and education. An understanding of additional research that has addressed other important questions and used different, complementary research methods is necessary for one to have a thorough understanding of emergent literacy learning and teaching.

For example, it is striking to many early childhood educators that oral language and vocabulary were not among the early childhood factors the National Early Literacy Panel review found to be strongly associated with conventional literacy achievement in kindergarten, first, or second grade. There is considerable research indicating the importance of preschool language development. The landmark study by Hart and Risley (1995) showed rate of vocabulary growth at age 3 to be highly correlated with receptive vocabulary, listening, speaking, semantics, and syntax scores at ages 9–10. In addition, a substantial body of research indicates that children who exhibit difficulty with vocabulary and grammatical skills during their preschool years are much more likely to experience later reading difficulties than children who acquire oral language according to expected milestones (Catts, Fey, Zhang, and Tomblin 1999, 2001; Scarborough 1990). So, even though NELP did not report oral language to be a strong predictor of

subsequent literacy achievement, the larger corpus of research on preschool oral language, which includes rigorous observational and ethnographic studies, as well as research using experimental and quasi-experimental designs, convincingly demonstrates the importance of oral language development in relation to reading achievement.

Oral language plays a substantial role in early learning, and specifically for children's literacy development from K–Grade 2, for all children, including English language learners (Dickinson and Tabors 2001; Tabors and Snow 2001).

It is also important to realize that there are factors relevant to a discussion of what is involved in early literacy learning that NELP did not address because of the specific charge the Panel was given. One of these is that the area of research focused on the role of affective factors such as engagement and self-regulation in emergent literacy. A robust body of work on engagement and literacy resulted from the research agenda of the National Reading Research Center (Baker, Dreher, and Guthrie 2000). These studies, centered on elementary-aged children nine and above, emphasized motivation as a key factor in reading achievement:

- More highly engaged readers showed higher achievement than the less engaged readers.
- The motivation associated with becoming engaged in reading can help overcome obstacles to understanding a specific text (lack of adequate background knowledge, inadequate familiarity with certain key vocabulary, and so on) or even to more general risk factors typically associated with lower reading achievement (for example, coming from a low-income background, ELL status).

Unfortunately, there is comparatively little research on connections between engagement/motivation and literacy achievement with preschool or early primary grade children. However, conclusions found in reports from various projects involved in the national Early Reading First initiative or in books that draw heavily upon preschool and kindergarten classroom observations (for example, the *Preschool Literacy Collection* published by the International Reading Association) strongly suggest that engagement is every bit as important a factor in emergent literacy development as it is for literacy learning throughout the elementary and secondary schools (Justice and Vukelich 2007).

What do emergent reading and writing look like? When children read or write emergently, what do we actually see? In the beginning of the kindergarten year, most children cannot yet decode print to understand the meanings encoded in the text of books. Also, kindergarten children typically cannot encode their ideas in print in ways that are immediately readable to adults. However, all kindergarten children can and do read and write emergently if they are immersed in a kindergarten classroom that values emergent forms of reading and writing and if the teacher sets up the conditions that encourage such behaviors.

Emergent reading is what happens when young children read familiar books (books that have previously been read repeatedly to them) in ways that are not yet conventional reading. Typically these books are picture books. All early childhood teachers have seen such behaviors in young children. A five-year-old sits down with *Brown Bear, Brown Bear, What Do You See?* (Martin 1983) or even a more complicated text like *Caps for Sale* (Slobodkina 1940) or *Five Nice Mice* (Tashiro 2007), turns through each

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of the pages in order and sounds exactly like she is reading it, even though she is looking only at the illustrations and not to any of the actual words that are on the page. Another child run his fingers under the words in the book and utters language that indicates he knows what is happening on each page or understands the information that is contained there, but uses language quite different from what is actually printed on the page.

Everyone thinks, “How cute!” And it is cute, but more importantly it is part and parcel of the process of learning to read. Research indicates that such emergent storybook readings play an important role in the overall development of literacy because they offer opportunities for children (a) to practice what they have experienced in classroom read-alouds and (b) to develop new understandings about how written language works (Sulzby and Teale 1991).

Sulzby’s (1985) research yielded a system for categorizing the emergent reading behaviors of young children when they interact with a storybook (narrative picture book). This system described the developmental properties of children’s growing understandings of oral and written language distinctions. Subsequently, Teale, Hiebert, and Chittenden (1987) simplified Sulzby’s eleven different categories into a scale that captures the major storybook reading concepts and strategies exhibited by children that early childhood teachers find important for charting growth and planning appropriate instruction. Table 1 summarizes those five developmental categories, going from the least to the most sophisticated emergent reading.

Table 1. Five development categories

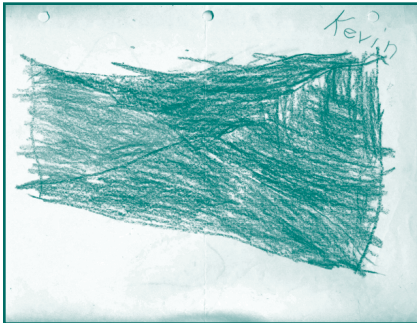
Categories of Emergent Storybook Reading		
Category	What the Child Focuses On	What the Child Does
Labeling and Commenting	Pictures	Labels, comments on, and/or follows the action in the pictures. No story is formed.
Oral-Language-Like Reading	Pictures	Sounds like telling a story
Oral and Written Language Mixed	Pictures	Part sounds like telling a story, part sounds like reading a story
Written-Language-Like Reading	Pictures	Sounds like reading a story
Aspectual Reading	Print	Child may: <ul style="list-style-type: none"> • Read known words or • Track print with finger and reconstruct the story from memory (but not read the words) or • Try to “sound out” words

Emergent writing consists of both young children’s ways of composing and how they actually encode what they are writing in the marks they put on paper. The idea of emergent writing is well known to most preschool- and primary-grade teachers because they come face to face with how young children attempt to solve the “written language puzzle” that is spelling (encoding).

Once a child makes the distinction between drawing and writing, the simplest manifestation of writing is what most adults call scribble, which represents the child’s attempt to imitate adult cursive writing. However, even children’s early scribbles exhibit the distinctive graphic characteristics of the culturally elaborated language system in which they grow up (Harste, Burke, and Woodward 1984).

More sophisticated forms of emergent writing include the use of letters or letter-like forms and, eventually, what has been called invented, or phonic, spelling. Figure 2 depicts what research has shown to be the general developmental progression of how young children encode meanings in emergent writing (Schickedanz and Casbergue 2009).

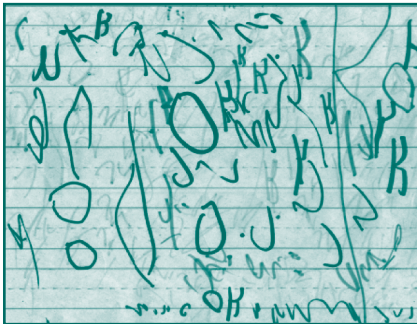
Figure 1. Developmental progression of young children's emergent spelling and early combinational spelling



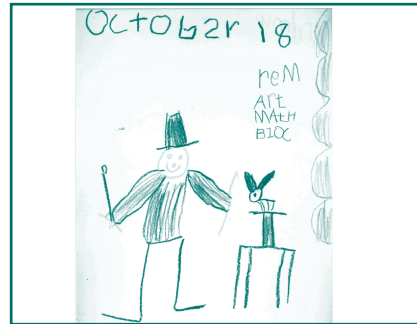
Writing-drawing not yet distinguished



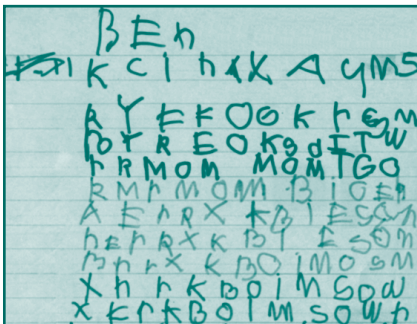
Scribble (distinguished from drawing)



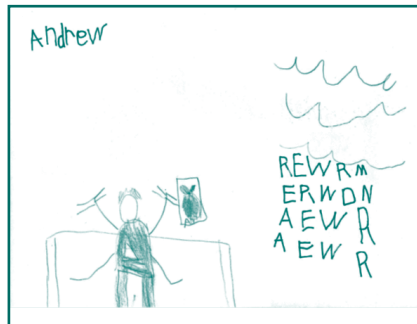
Letter-like forms



Copying environmental print

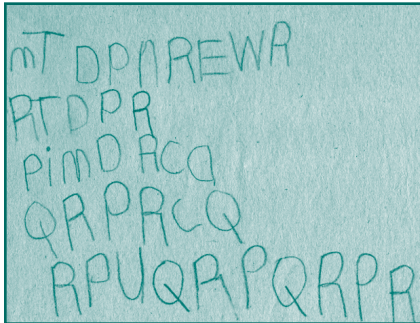


Letters—miscellaneous



Letters in one's name

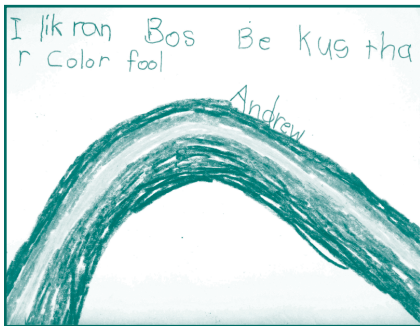
Figure 1. (continued)



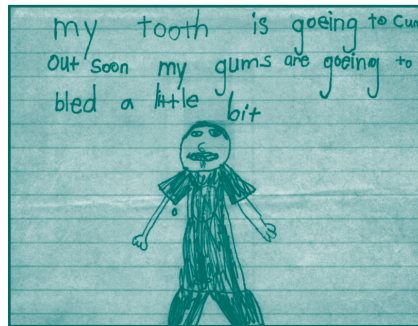
Early phonemic spelling



Syllabic spelling—one letter per syllable
("I want to see a panda bear.")



Letter name spelling
("I like rainbows because they are colorful.")



Transition to conventional spelling
("My tooth is going to come out soon.
My gums are going to bleed a little bit.")

Not all children exhibit all the forms of writing depicted in Figure 2, and children may move somewhat differentially through the general developmental pattern represented. But in the journey from scribble to script most children progress from scribble to using non-phonemic letter strings, to early phonemic spelling, to letter name spelling, and then into transitional conventional spelling, which virtually all adults can read even though a number of words may be misspelled (Schickedanz and Casbergue 2009). Typically, children develop the ability to move beyond letter-name spelling in conjunction with becoming able to read conventionally; this is one example of the ways in which reading and writing mutually reinforce each other in early literacy learning (Shanahan 2006).

More specifically, research has clearly shown that writing emergently helps children learn both about the conventions of print (for example, directionality) and also develop phonological awareness and phonics skills that support their conventional writing and reading (NELP 2008).

Composing is the other aspect of young children's writing. Composing is all about expressing meaning. It is important to remember that kindergarten and first-grade children engage in plenty of composing—orally—without feeling any particular compulsion to put their ideas in writing. But when their teachers encourage writing and support it, children of these ages will be drawn to writing lists, stories, signs, directions, informational materials, notes, and plenty of other kinds of texts.

Four- and five-year-old children's composing strategies and patterns of development, as well as their compositional products, have been studied much less than early spelling development, but research findings are leading to a number of very interesting insights:

- During the emergent literacy phase of development, the ability to compose orally is usually much more developed than is the ability to compose on paper or a computer screen.
- Thus, the teacher's transcribing children's oral compositions to paper or computer is a supportive early step in helping children develop written composing skills.
- Young children are capable of constructing meaningful, written informational pieces and stories, but when they are in the first writing phases of writing phonemically, they typically struggle to get a piece into written form.
- In an effective written composition, the author takes into account what the audience needs and wants to know. This is difficult for children in the emergent literacy phase of development to do independently. So the teacher has to support this quite a bit with strategies such as questioning and expansions that encourage the child to supply enough information to allow the reader to understand what is written without having the child present to explain it orally.

- Instructional contexts that encourage and enable emergent writers to compose in a variety of forms and for a variety of purposes is desirable because young children enter into literacy from a range of angles, depending on their cultural, social, and experiential backgrounds.

How do young children develop emergent literacy knowledge, skills, and dispositions?

Over the past fifty years, researchers and educators have gone back and forth about the fundamental means by which emergent literacy develops in young children. We know that both the home and the classroom environment influence emergent literacy development significantly. But, does emergent literacy develop naturally, like oral language, without the need for an emphasis on formal instruction? Or is literacy a set of skills that must be taught—and taught directly? This issue was debated hotly and heavily in the late 1970s and early 1980s and came to the fore again with the “reading wars” of the mid-1990s (Goodman and Goodman 1979; Gough and Hillinger 1980; Lyon 2000).

It is generally agreed that reading and writing are not learned in fundamentally the same way as oral language, which has an innate component that triggers its learning. That is to say, we are, in certain senses, hard-wired to learn to speak because of the millennia over which we as humans have been speaking. Different scholars identify this innate capacity differently—a “language acquisition device” the “conversational imperative,” and so on—but the point is that at this point of evolution as a species, every one of us will learn to talk, unless there is some profound disability (Chomsky 1957; Baron 1992). We are not, however, hard-wired in any sense to learn to read and write, most likely because we invented reading and writing only a few thousand years ago (Schmandt-Besserat 1992). Thus, the fundamental mechanism by which young children learn to read and write cannot really operate in the same manner as what happens in learning to speak.

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And yet, studies of “early readers,” children who learn to read and write before going to school clearly show that the vast majority of parents of such children say they did not teach them to read (Durkin 1966; Tobin 1981); and if no one taught the children, didn’t they learn to read and write naturally? How do we reconcile these apparent differences?

Teale (1982, 1984) proposed a way of thinking about the development of emergent literacy, knowledge, skills, and dispositions that takes into account the apparent natural literacy development of a small number of young children and most children’s need for explicit instruction in order to progress adequately in reading and writing.

Two things are important for educators to keep with respect to the issue of early literacy learning: First, both the home and classroom environments have significant influences on children's emergent literacy knowledge, skills, and dispositions. Second, instruction that promotes emergent literacy learning manifests itself in a variety of ways.

Even though there is an innate component to children's oral language learning, a child cannot learn language in a vacuum or even from watching television. Language is inherently social; children require interaction—extensive and protracted interaction—with other capable language users in order to learn to talk. As Teale (1984) explained, learning oral language involves two facets.

...both learning (on the part of the child) and teaching (on the part of the parent...) However, the teaching that occurs in homes looks nothing like what is typically thought of as teaching in classrooms. Yes, there is some of what may be termed "direct instruction" ... (in homes). But most of the teaching occurs as an aspect of the social interaction between parent and child in activities typical of the home or community... (p. 317)

In other words, the child is most often learning from 'instruction' that is situated in the context of goal-directed activities such as shopping, cooking, taking part in a religious ceremony, keeping up with the baseball scores and standings, putting notes on the refrigerator, sending e-mail to grandma and grandpa, or as part of his or her sociodramatic play. Within these and a vast array of other settings, parents who create rich home literacy environments (a) model literacy, (b) do things with their children to help them understand or produce the written language that is part of the activity, and (c) make sure the environment has an array of literacy materials that children can explore on their own.

This process by which preschool children are ushered into the world of literacy in their home environments might be described as "natural" rather than natural (Teale, 1984). That is to say, as noted in the previous paragraph, the process clearly involves instruction; but it may not be what we typically think of with respect to the word *instruction*. When young children are immersed along with another literate person in a variety of activities that involve literacy—that is, when adult(s) read to them on a regular basis, and when children have access to print and digital materials and to writing instruments and materials which they can investigate on their own—literacy develops. There are instances when the instruction is directly focused on a literacy skill (teaching a 4-year-old to form the letter "J" or to write her name, for instance), but much of the time children learn as a result of the 'instruction' that is embedded within the larger, meaningful, goal-directed activity. As Teale (1982) put it:

By being engaged in activities that have literacy embedded in them and in which the reading or writing...are played out in the social interaction between the child and the more experienced, literate person, the child is able to participate in the

activity itself, gradually internalize,...and thereby develop personal competencies in reading and writing (563).

This process by which young children develop emergent literacy, knowledge, skills, and dispositions has important implications for how we should conceptualize the environments and instructional activities we employ in school classrooms.

What are effective approaches for emergent literacy instruction? **LEAD21** has based its approach to literacy instruction in kindergarten and early first grade on the findings of the research discussed in the previous two sections and on research-based descriptions of quality emergent literacy instruction (NELP 2008; Labbo and Teale 1998; McGee and Richgels 2007; Justice and Vukelich 2007; Vukelich and Christie 2009). This body of work has repeatedly shown the following characteristics of classroom curriculum and instruction to be important in fostering emergent literacy development:

Principles of Practice

- *Literacy is experienced as part of the everyday life and activities of the classroom.* When children live in contexts where literacy is routinely used to help get a wide variety of things done, they grow into literacy. In this way, reading and writing become inherently interesting because of the information, the sense of wonder, and the communicative opportunities they unlock for children. **LEAD21** offers writing instruction to serve a variety of age-appropriate tasks from Kindergarten through Grade 2: For example, students write lists of classroom rules, rules for group work, personal narrative, weather reports, thank-you notes, as well as various types of messages including e-mail. They Talk About Text and engage in Partner Talk nearly every day—discussing what is notable or otherwise of interest to them in each text. The Differentiated Readers and Concepts Big Books cover fiction as well as nonfiction, informational topics so students are constantly using literacy to find out about their world.
- *The teacher views the child learners in the classroom as active constructors of their own literacy knowledge and strategies.* The teacher always leaves “spaces” in all lessons she holds with the children because she recognizes that young children’s emergent literacy learning is not centrally about memorizing and copying: It is about children making the knowledge and skills their own. To this end, **LEAD21** instruction encourages students to make the Theme Question their own by incorporating it into the Set Purposes activity. Partner Talk nurtures students’ ability to process concepts, check their use of the comprehension strategies, and internalize the topics they are reading about. The Think Back and Think Ahead pages provide “space” for students to share their text with others and to speculate about the week ahead. In addition, the Differentiated Readers allow all students the opportunity to “own” their reading experience by giving students unique information to share with the larger class group. Each child has something special to share, since each small group reads a different selection.

In the many rich, open-ended dramatic play (Theme Center, Grade K) and center activities (Writer’s Desk, Vocabulary Central, Phonics Focus, Book Corner) the teacher also orchestrates a variety of chances to explore and employ reading and writing in many different ways. Kindergarteners visit the Study Stations twice per week, while Grades 1 and 2 visit each station once per week. The activities all support the skills taught in whole-group work so students have a chance to practice the skills in a new, less formal setting.

- *Different developmental paths into literacy learning are supported.* Research on both emergent reading and emergent writing development indicates that there is no single developmental progression that all young children go through in becoming literate (Sulzby 1991). **LEAD21**, therefore, provides a range of instructional and assessment activities in order to accommodate the variety of paths children of different abilities, cultures, and language backgrounds take in becoming able to read and write conventionally. The program offers four reading groups: Intensive, Strategic, Benchmark, and Advanced. Each set of Differentiated Readers is written to one of these levels, but selections cover the same topics and concepts. With this method, all students have access to the same literacy skills, written at their level to be read in small groups, but shared in whole-class settings. This structure gives each student a chance to contribute meaningfully in the whole-group discussions, thus ensuring validation for their unique entrance into literacy.

To help students move to the next level, Scaffolding Options appear in the Teacher’s Guide, linked to the lesson, providing teachers with means to continually address students’ needs so that they can move through levels of literacy with ease: Intervention for Acceleration, ELL Support, Critical Thinking, Challenge. Also, a full set of Decodable Readers and Intensive Support on eBooks are available to provide practice for students with the most need. Furthermore, the small-group lessons for the two lowest reading levels offer more intensive instruction to ensure that those students can progress rapidly through the academic year.

- *The curriculum offers integrated language arts experiences.* Substantial evidence suggests that listening, speaking, reading, and writing are learned interrelatedly rather than sequentially by young children (Whitehurst and Lonigan 1998; Teale and Sulzby 1986). Thus, **LEAD21** provides learning/teaching experiences in all of the language arts simultaneously rather than first concentrating on oral language and then on reading and finally on writing. Beginning with Unit 1 of Kindergarten, all students visit Writer’s Desk Study Station, and begin developing vocabulary. The Oral Language Development strand also begins immediately and is incorporated into the Daily Routines. Word Study work is fully incorporated into Grades 1 and 2, and Spelling begins in Grade 1. Writing and Language Arts is a daily lesson throughout the primary grades and includes instruction on grammar and usage.

Instructional Literacy Practices

- The classroom is a *print-rich environment*, and *literacy is embedded* in virtually all of the daily classroom routines: Reading and writing become functional parts of the way children participate in daily large group, center, small group, and independent activities. Print is integrated into all aspects of classroom life that involve the children—formal lessons, structured play, and the other, more informal times of the day like snack, lunch, outside time, activity transition times, and even bathroom time.
- The teacher provides many *demonstrations of forms and functions of literacy* through explanations of and think alouds about the literacy materials and processes that are involved. Comprehension skills and strategies are explicitly discussed under headings Introduce and Reinforce. Think Alouds are liberally placed throughout the Teacher’s Guide.
- The curriculum offers *intentional instruction* in foundational literacy concepts and strategies: Rather than merely leave children to engage in free play as in preschool, **LEAD21** offers many and varied lessons that provide intentional instruction on various aspects of early literacy. Phonological and Phonemic Awareness are each developed in unique strands and taught in daily instruction. Oral Language Development skills are also systematically taught and reinforced with an accompanying Oral Language Development Chart. Fluency is taught and practiced daily under its own heading and with its own specially selected passages.
- *Lessons take place in large-group and small-group settings, as well as in learning centers.* **LEAD21** has been designed to accommodate a continuous flow of students into and out of both homogeneous and heterogeneous groupings. Daily instruction occurs in both whole-class settings (heterogeneous) and small reading groups (homogeneous). In addition, the weekly Inquiry groups are purposely designed to be small, but heterogeneous. Fluency practice is done independently or in small groups culminating in a week’s-end, whole-class presentation. **LEAD21** classrooms will be characterized by the mixing of all ability levels for a wide variety of tasks.
- The *key instructional activities* include both formal instruction and informal, child-centered activities:
 - Read-aloud texts are especially written for sharing with children and discussing the contents—Alphabet Rhyme Big Book, Literature Big Books, Concepts Big Books.
 - Children self-select books for browsing and emergent reading: Children independently engage with books in the classroom library and Book Corner where they practice with decodable readers or other instructional texts.

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- Children visit the Writing Center on a regular basis to write emergently for a variety of audiences and purposes.
 - Dramatic play, called Theme Center in Kindergarten, is structured to include opportunities for emergent reading and writing as well as oral language development.
 - Additional center activities include Phonics Focus and Vocabulary Central.
 - **LEAD21** includes large-group, small-group, and centers instruction on *all the key aspects of emergent literacy* shown to have strong effects on later conventional literacy development:
 - Oral fluency and written language comprehension in **LEAD21** are combined into one strand that links oral fluency on everyday life topics and skills with written expression. The Oral Language Development Chart in Kindergarten focuses on prompting students to discuss common life experience. The chart in Grade 1 then links up with the Writing Models Chart, which marks the beginning of more formal writing instruction.
 - Phonological and phonemic awareness is explicitly taught through Kindergarten and Grade 1 in the Daily Routines.
 - Vocabulary acquisition is explicitly supported with a complete Vocabulary Strategies instructional plan, a Vocabulary Routine for introducing new words, a fully developed Word Study curriculum, and Vocabulary Central Study Station support activities.
 - Letter knowledge and letter-sound relationships knowledge is presented in a systematic, explicit curriculum beginning in Unit 1 of Kindergarten. The phonics curriculum begins in Kindergarten and continues through Grade 2.
 - Print knowledge begins in Kindergarten with a full complement of concepts-of-print instruction embedded into daily reading work.
 - **LEAD21** also promotes the development of *rich background knowledge* in subject areas such as science, social studies, and humanities. Each unit focuses on a theme from one of these content areas to enrich students' world knowledge and to underscore the usefulness of literacy as a means to manage their experience. See the list of Unit Themes on page 25.

Conventional Literacy: Beginning Reading and Writing

What Is Conventional Literacy? Conventional literacy is what most people think of as ‘real’ reading and writing. When young children read and write conventionally, they are able to pick up a book never seen before or interact with a screen on the computer that they have not previously viewed and decode 90% or more of the words fluently enough that they comprehend most of the message. In writing conventionally, a young child composes a coherent message, spelling most words in ways that would be readable by grown ups, even if a number of the words are not spelled exactly correctly.

Most children begin to read and write conventionally around age six, when they are in first grade, although some do so in kindergarten, and children who struggle with literacy may not learn to read and write conventionally until second grade. Until twenty or so years ago, first grade was thought of as the time for “beginning reading” because it was the grade in which formal reading and writing instruction began. Today virtually all kindergartens provide formal instruction in literacy and thus kindergarten has become the year for “beginning reading,” and **LEAD21** begins ushering children into the world of reading and writing from day one of the program.

What is involved in conventional literacy learning during the primary grades? The time between the beginning of kindergarten and the end of second grade mark a period of tremendous change in the literacy of most children. Typically, with respect to reading, children begin this period knowing certain letters of the alphabet and realizing how some of them are associated with particular phonemes (sounds) but little more. By the time they enter third grade, children who are on track with reading can pick up a grade-level text they have never seen before, recognize 90% or more of the words it contains, read it at 80–100 words per minute with appropriate phrasing and expression, and comprehend what it is about. Of course, because of differing background experiences and abilities, across the K–Grade 2 period of their literacy learning, children exhibit a range of ages at which they achieve the different milestones of reading and writing development that occur between ages 5 and 9. But, the majority of K–2 children move through two stages of reading development described by Chall (1996b) as follows:

Conventional literacy is what most people think of as ‘real’ reading and writing.

- **Decoding Phase:** A reader in this phase of learning typically focuses on the text, specifically paying close attention to individual words. The child becomes aware of the alphabetic principle of a written language like English or Spanish (words are composed of letters and letter combinations that represent sounds) and thus begins “gluing to print,” attempting to sound out words and break the code of print (Ehri 1995). If the child can recognize 90% or more of the words in a text, comprehension is usually good because texts at this level of difficulty consist of mostly of words known by the child orally.

- **Fluency (Ungluing from Print) Phase:** Fluent reading is characterized by accuracy in word recognition, adequate speed (30–60 words/minute at Grade 1; 70–100 wpm at Grade 2), and expression (parsing the text into meaningful units and varying expression and volume to match interpretation of the text) (Rasinki 2004). Fluent reading enables the child to devote more cognitive resources to understanding what is being read. Fluent reading does not happen automatically. Young children develop the ability to read fluently by lots of practice with connected text—reading familiar or other ‘comfortable’ texts in comfortable reading situations.

LEAD21 affords a central role for both decoding and phonics in its K–2 levels, as can be seen in the *Phonemic Awareness and Phonics Instruction* and *Fluency Program Research Base White Papers*. At the same time, **LEAD21** is also built on the understanding that even though decoding or fluency is the main aspect of reading being focused on in each of these phases, the other aspects of reading growth—comprehension, engagement, vocabulary knowledge—are also critically important during this time and need sustained instructional support.

As far as the timing of development is concerned, growth in decoding skill is especially central during the latter half of kindergarten and throughout first grade. Second grade is often thought of as the time that young children consolidate their early decoding skill and bring all of the coding systems used in reading—graphophonic, syntactic, semantic, and pragmatic—into an interconnected whole that promotes fluency when attempting a new text.

With respect to writing development during this period, a similar pattern of tremendous growth occurs for most children. What began as non-phonemic spelling typical of the beginning of kindergarten will have developed to the point where children write using not only phonologically appropriate letters for the sounds they are trying to represent but also spell most high frequency ‘irregular’ words correctly and, for many words, are able to correctly use morphophonemic and orthographic features of written language like doubled consonants (butter), silent letters (bike), vowel pairs that represent one sound (mail), and so forth. With respect to composing, the rather sparse oral compositions (discussed above) that are characteristic of emergent writers will have developed to the point where second graders write multi-page narratives or informational pieces (Everything Important About Crocodiles), all, of course, illustrated with their own drawings or digital photographs. Throughout its K–2 levels **LEAD21** carefully integrates reading and writing together each day and every week of each unit, as can be seen in Table 2.

Table 2. Integration of writing and reading.

LEAD21 Writing/Comprehension Connections in Kindergarten through Early Grade 1			
Kindergarten			
Unit 1	Writing Product	Comprehension Strand	Writing/Comprehension Connection
All About Me	Journal writing	Determine Important Information Compare and Contrast	Students determine what is most important to record.
	Using pictures and labels to tell about me	Determine Important Information Compare and Contrast	Students determine the most important information about a picture or object.
	Using lists to tell about me	Make Inferences Fantasy/Realism	Students list things that are real and unreal.
Unit 2	Writing Product	Comprehension Strand	Writing/Comprehension Connection
Around the Home	Signs	Predict Text Structure	Students predict what people need to know.
	Sentences: using my senses around the house	Predict Text Structure	Students learn appropriate sentence structure .
	Question and answer sentences	Summarize Main and Supporting Idea	Students summarize interesting information about their homes.
	Responding to reading	Summarize Main and Supporting Idea	Projects such as book reviews, retellings, and posters require students to summarize key information from the text
Unit 3	Writing Product	Comprehension Strand	Writing/Comprehension Connection
Home and Family	Pictures with captions that tell about my family	Ask and Answer Questions Categorize and Classify	Writing captions for pictures involves students in categorizing and classifying
	Story	Ask and Answer Questions Categorize and Classify	Sharing stories requires students to ask and answer questions
	Expository: sentences about family	Monitor Comprehension Retell/Recall	Projects such as book reviews, retellings, and posters require students to recall or retell key information from the text Projects such as book reviews, retellings, and posters require students to recall or retell key information from the text
	Responding to reading	Monitor Comprehension Retell/Recall	Projects such as book reviews, retellings, and posters require students to recall or retell key information from the text

Table 2. (continued)

LEAD21 Writing/Comprehension Connections in Kindergarten through Early Grade 1			
Kindergarten			
Unit 4	Writing Product	Comprehension Strand	Writing/Comprehension Connection
Outdoor Explorers	Weather report	Make Connections Distinguish Fact and Opinion	Requires students to focus on facts and not opinions
	Sentences describing a place	Make Connections Distinguish Fact and Opinion	Descriptions allow students to write sentences of both fact and opinion
	Story	Visualize Identify Details and Facts	Students visualize setting and characters
	Responding to reading	Visualize Identify Details and Facts	Projects like creating posters, covers, or bookmarks require student to visualize aspects of the text.
Unit 5	Writing Product	Comprehension Strand	Writing/Comprehension Connection
Let's Celebrate	Invitation	Summarize Identify Details and Facts	Students identify facts guests need to know.
	Poem	Monitor Comprehension Determine Author's Purpose	Students identify the purpose of a poem.
	Sentences and pictures about holidays	Predict Draw Conclusions	Students make predictions about family events.
	Responding to reading	Determine Important Information Draw Conclusions	Responses include book reviews which require students to determine important information

Table 2. (continued)

LEAD21 Writing/Comprehension Connections in Kindergarten through Early Grade 1			
Kindergarten			
Unit 6	Writing Product	Comprehension Strand	Writing/Comprehension Connection
Life All Around	Description of a plant or animal	Visualize Details and Facts	Students focus on details to help the reader visualize the subject.
	Story	Summary Sequence Events	Students sequence events to create a story with a beginning, middle, and end
	Poster	Make Connections Picture Clues	In creating posters with pictures, students discuss how pictures provide clues about the message
	Responding to reading	Ask and Answer Questions Picture Clues	Students ask questions of an author through a letter; students use picture clues to discuss meaning of text
Unit 7	Writing Product	Comprehension Strand	Writing/Comprehension Connection
Actions and Words	Personal narrative	Visualize Details and Facts	Students write to help the reader visualize .
	Messages: thank-you note	Determine Important Information Picture Clues	Students determine important information to include in a message
	Procedural: how to...	Monitor Comprehension Sequence Events	Requires students to sequence events to accomplish a goal
	Responding to reading	Ask and Answer Questions Main Idea and Supporting Details	For a critical response, students focus on details that answer questions .
Unit 8	Writing Product	Comprehension Strand	Writing/Comprehension Connection
Working Together	Story	Predict Text Structure	Students focus on structure of a story and predict endings for classmates' stories
	Personal narrative	Make Inferences Draw Conclusions	Students make inferences about their classmates' narratives.
	Today's news	Make Connections Recall and Retell	Students recall the days' events and retell in their own words
	Responding to reading	Visualize Details and Facts	For a creative response, students visualize story parts to create a poster or picture.

Table 2. (continued)

LEAD21 Writing/Comprehension Connections in Kindergarten through Early Grade 1			
Early Grade 1			
Unit 1	Writing Product	Comprehension Strand	Writing/Comprehension Connection
Friends and Family	Journal writing (setting up a writer's notebook)	Determine Important Information Compare and Contrast	Students determine what is most important to record.
	Expository: class rules	Determine Important Information Compare and Contrast	Students determine what is most important to follow and post.
	Messages (friendly letter, invitation, thank-you note, e-mail)	Make Inferences Identify Text Structure	Students discover that a message's purpose determines its structure
	Responding to reading (book reviews, retellings, letters to authors)	Make Inferences Identify Text Structure	Students infer what readers want or need to know
Unit 2	Writing Product	Comprehension Strand	Writing/Comprehension Connection
On the Move	Procedural: directions with maps	Predict	Procedural writing requires that directions are sequenced in an exact order.
	Informational texts (alphabet books)	Predict Sequence	Students use correct sequence of alphabet to create an alphabet book
	Descriptive posters with labels and captions	Summarize Details and Facts	Posters require students to summarize important information
	Responding to reading (book reviews, retellings, letters to authors)	Summarize Details and Facts	Students summarize stories they have read by recalling details and facts
Unit 3	Writing Product	Comprehension Strand	Writing/Comprehension Connection
In My Neighborhood	Persuasive poster, ad, letter	Ask and Answer Questions Fact and Opinion	To persuade, students write opinions and use facts to support them
	Expository poster, news report, announcement	Ask and Answer Questions Fact and Opinion	Students anticipate what questions readers might have and provide answers in the text
	Personal narratives	Monitor Comprehension Retell/Recall	Students retell events from their lives
	Responding to reading (book reviews, retellings, letters to authors)	Monitor Comprehension Retell/Recall	Students recall and retell parts of stories and relate how they felt about them

Table 2. (continued)

LEAD21 Writing/Comprehension Connections in Kindergarten through Early Grade 1			
Kindergarten			
Unit 4	Writing Product	Comprehension Strand	Writing/Comprehension Connection
Earth's Treasures	Poems (including couplets)	Make Connections Cause and Effect	Young poets make connections between themselves and their readers
	Story	Make Connections Cause and Effect	Young writers connect to readers by making stories that interest readers
	Descriptive sentences and paragraphs	Visualize Draw Conclusions	Descriptive writing helps readers visualize
	Responding to reading (book reviews, retellings, letters to authors)	Visualize Draw Conclusions	Young writers draw conclusions about texts they have read

How do K-Grade 2 children develop early conventional literacy knowledge, skills, and dispositions? The transition from Emergent Literacy to Conventional Literacy is not really hard and fast; think of it as more permeable, rather like the change from a child to a teenager. It happens over time, but not that long of a period of time; and it is clear when a child has moved from being an emergent reader-writer to a reading and writing conventionally reader-writer. However, it is almost that you fully realize it in retrospect, after the transition has been made (just as you realize one day that that person who was a child is now truly a teenager).

Research has not completely described the mechanisms by which the transition comes about, but a big part of it involves coordinating a number of different facets of the process so that they operate in a coordinated fashion rather than separately. For example, the most sophisticated forms of emergent reading that Sulzby (1985) identified were three different types of Aspectual Readings: Aspectual—Meaning, in which the child focuses on comprehension (following the print with one’s finger and ‘reading’ words that recreated the plot of the book but not the actual words on the page); or Aspectual—Sight Words, in which the child reads words she or he knows

The child capable of reading conventionally automatically recognizes known sight words and applies decoding (phonics) strategies to the words, all the while keeping track of the meaning of the text, which is the ultimate point of reading. In other words, the young reader who has figured out how to read conventionally, juggles and balances all three of these processes, each to the extent necessary, in the act of reading the text.

(sight words) and skips the rest of the text; or Aspectual—Decoding, in which the child focuses to such an extent on sounding out words that she or he cannot reconstruct the meaning of the text. To be reading conventionally, however, a child must have a certain degree of control over all three of these aspects of reading. The child capable of reading conventionally automatically recognizes known sight words and applies decoding (phonics) strategies to the words, all the while keeping track of the meaning of the text, which is the ultimate point of reading. In other words, the young reader who has figured out how to read conventionally, juggles and balances *all three* of these processes, each to the extent necessary, in the act of reading the text.

In essence, however, once children make the transition to reading and writing conventionally, the processes by which they continue developing early literacy knowledge, skills, and dispositions during the primary-grade years are fundamentally the same as those described previously for emergent literacy development, adjusted slightly because of the increased cognitive development of older children. That is to say, primary-grade children progress in literacy because the teacher engages in the following instructional practices:

- models reading and writing
- provides children with a window into the processes involved in reading and writing through think alouds and other strategies that build their metacognitive awareness
- creates opportunities for children to read and write for a range of authentic purposes and audiences
- intentionally and systematically teaches the range of reading and writing skills related to continued progress in literacy learning across the primary grades (National Reading Panel 2000; Pressley, et al. 2001)
- develops the classroom environment with a rich array of literacy materials (picture books, easy chapter books, online books, and graphic novels of various genres; student-written materials; children’s magazines) that children can explore independently and in collaboration with each other
- monitors and promotes children’s engagement in and positive dispositions toward reading and writing as well as their skills/achievement.

It should be obvious from the preceding description that the development of early conventional literacy skills is a multifaceted and complex process. Children are learning not only new information and skills but how to orchestrate the information and skills into a coherent whole that enables them to successfully read something they have never seen before and compose texts that achieve their writing purposes.

LEAD21 supports the development of this multifaceted period of literacy development in a number of ways. First, the reading and writing that children do are couched in topical units that have deep interest for children. This is a critical step because it recognizes the importance of child engagement (Table 3). With engagement, young children sustain attention longer and are more likely to develop self-regulation and sustain the practice it takes to develop automaticity in the word-recognition and decoding skills that are important in the early grades.

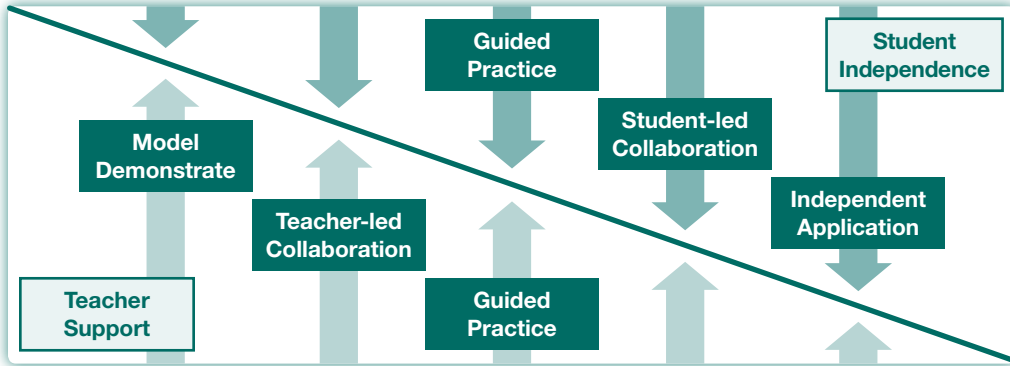
Table 3. Topical units.

LEAD21 Unit Themes			
	Kindergarten	Grade 1	Grade 2
Unit 1	All About Me	Friends and Family	My Roles
Unit 2	Around Me	On the Move	All Around Town
Unit 3	Home and Family	In My Neighborhood	Community Life
Unit 4	Outdoor Explorers	Earth's Treasures	Seasons and Weather
Unit 5	Let's Celebrate	Stories of Our Past	Now and Then
Unit 6	Life All Around	A Perfect Place to Live	Growing Up
Unit 7	Actions and Words	Good Citizens	Local Leaders
Unit 8	Working Together	Getting Along	Physical Feats

In addition, **LEAD21** is designed to integrate all of the language arts during the primary grade years. Daily Routines incorporate phonological and phonemic awareness skills. Daily work with fluency supports students' speaking skills. In addition, regular features such as Talk about Text and Partner Talk encourages growth in oral self-expression. **LEAD21** also incorporates a thorough Oral Language Development strand, which is supported by the Oral Language Development Chart, featuring large-scale photos to prompt discussion. Also, students write every day, from their early weeks in Kindergarten and throughout their primary years. And the daily language arts lesson incorporates grammar.

Finally, **LEAD21** also features a gradual release of responsibility model of instruction across K–2 that effectively employs teacher modeling and think alouds, creates numerous opportunities each week as well as across each unit for children to read and write for a range of authentic purposes and audiences, and intentionally and systematically teaches all the strategies and skills necessary in (large group, small group). The model is used to teach comprehension and vocabulary strategies, writing processes, vocabulary acquisition, fluency development, and phonics. (See Figure 2.)

Figure 2. Gradual release of responsibility model.



What are effective approaches for primary grades literacy instruction? There has been more educational research devoted to “beginning reading” than any other research topic in the field of education, and for the past half century the issue of how to teach beginning reading in English has been a very hotly contested subject. Differences of opinion and data have swirled around the issue of whether children learn best with a meaning-emphasis method or a code-emphasis approach. Today, given the research of the past twenty years and initiatives like the National Reading Panel (2000), there is widespread agreement that effective primary grades literacy programs provide explicit, systematic instruction in these strands:

- reading comprehension
- composing skills
- phonological awareness
- phonics
- oral language development, especially in the area of vocabulary
- online reading skills
- reading fluency
- spelling

Accordingly, **LEAD21** has been designed around units and lessons that offer daily instruction to children in each of the aforementioned areas. The Program Research Base White Paper *Reading Comprehension* details the comprehension strategies and skills that are taught throughout the program. Likewise, the White Papers *Phonological Awareness and Phonics*, *Vocabulary*, and *Fluency* all provide specifics on these key aspects of central facets of the **LEAD21** instruction in K–2.

Conclusion

We all know the importance of the early childhood years in lifelong literacy development. Some research suggests that the trajectory of a child's reading achievement is set by the end of first grade (Juel, Griffith and Gough 1986). With that in mind, Wright Group **LEAD21** has put a great deal of planning into what happens in the program from Kindergarten through Grade 2. We have drawn upon the strongest research in both emergent literacy and beginning reading and writing to craft instructional experiences that build on the characteristics of young children's learning and have high expectations for what K-2 children can accomplish in reading and writing. **LEAD21** will help teachers to achieve the goal of not only preventing reading and writing difficulties during the crucial period of early childhood but also fostering high levels of achievement in all the aspects of literacy skills that will enable children to continue as capable, independent, lifelong readers and writers.

LEAD21 Early Childhood Literacy Instructional Pedagogy

Research Says	LEAD21 Delivers
Literacy develops in real-life settings for real-life activities in order to “get things done.” (Neuman and Dickinson 2003; Dickinson and Neuman 2005; Barone and Marrow 2002)	Inquiry Projects beginning in early Kindergarten tap into students’ desire to know about their world. Generating questions to direct their inquiry and listing ideas to satisfy their own curiosity teach students that they need literacy to learn about their world. Also, the class creates an Anchor Chart, with the teacher’s help, as a practical help to guide their Study Station rotations.
Children learn written language through active engagement with their world. They interact socially with adults in writing and reading situations; they explore print on their own, and they profit from modeling of literacy by adults and older children. (Neuman and Dickinson 2003; Dickinson and Neuman 2005; Barone and Marrow 2002)	<ul style="list-style-type: none"> • LEAD21 applies the Gradual Release of Responsibility Model to writing instruction. The teacher models writing, then engages the students in shared writing, gradually building independence. • Also as early as Kindergarten, LEAD21 includes specific instruction to teach students how to read independently which includes teacher modeling of appropriate behavior.
<p>The [National Early Literacy] Panel’s review of approximately 500 studies indicated that the following all had “medium to large predictive relationships with later measures of literacy development...even when the role of other variables, such as IQ or socioeconomic status (SES), were accounted for” (p. vii):</p> <ul style="list-style-type: none"> • alphabet knowledge of the names and sounds associated with printed letters • phonological awareness: the ability to detect, manipulate, or analyze the auditory aspects of spoken language (including the ability to distinguish or segment words, syllables, or phonemes), independent of meaning • rapid automatic naming (of letters, digits, objects, or features such as colors) • writing: the ability to write letters in isolation on request or to write one’s own name • phonological memory: the ability to remember spoken information for a short period of time (p. vii) 	<p>LEAD21 adopts the following instructional pedagogy into the program as guiding principles:</p> <ul style="list-style-type: none"> • Alphabetic knowledge is taught in Kindergarten Units 1 and 2, and systematic phonics instruction begins in Unit 3 and continue through the end of Grade 2. • A strong strand of phonological awareness runs throughout Kindergarten, presented and practiced through Daily Routines. • Alphabetic principle continues to be reinforced throughout Kindergarten and early Grade 1 through work in the Phonics Companion. • Writer’s Corner is one of five Study Stations, beginning in Kindergarten. • Oral Language Development strand begins in Kindergarten and continues through the first half of Grade 1, supported by chart photos to prompt discussion.
The landmark study by Hart and Risley (1995) showed rate of vocabulary growth at age 3 to be highly correlated with receptive vocabulary, listening, speaking, semantics, and syntax scores at ages 9-10. In addition, a substantial body of research indicates that children who exhibit difficulty with vocabulary and grammatical skills during their preschool years are much more likely to experience later reading difficulties than children who acquire oral language according to expected milestones (Catts, Fey, Zhang, and Tomblin, 1999, 2001; Scarborough, 1990).	<p>The Oral Language Development strand is carefully developed in LEAD21.</p> <ul style="list-style-type: none"> • Beginning on the first day of Kindergarten and continuing through Grade 1, students are encouraged to talk about real life activities, and to share them in small-group work and with the whole class. • The Oral Language Development Chart presents large, full-color photos to prompt discussion. • In addition, systematic vocabulary work is taught and supported through the Vocabulary Central Study Station.

LEAD21 Early Childhood Literacy Instructional Pedagogy

Research Says	LEAD21 Delivers
Typically, children develop the ability to move beyond letter name spelling in conjunction with becoming able to read conventionally; this is one example of the ways in which reading and writing mutually reinforce each other in early literacy learning (Shanahan, 2006).	<p>LEAD21 presents a fully integrated reading and writing literacy program:</p> <ul style="list-style-type: none"> • A full curriculum of alphabetic knowledge begins in early Kindergarten and begins a systematic, explicit phonics program in Unit 3, continuing through Grade 2. • The Alphabet Rhyme Big Book reinforces this instruction. • LEAD21 also offers a complete set of Pre-Decodables and Decodable Readers for the Book Corner Study Station. • Writer's Desk Study Station reinforces the alphabetic knowledge, writing, and phonics work.
Research on both emergent reading and emergent writing development indicate that there is no single developmental progression that all young children go through in becoming literate (Sulzby, 1991).	LEAD21 , therefore, provides a range of instructional and assessment activities in order to accommodate the variety of paths children of different abilities, cultures, and language backgrounds take in becoming able to read and write conventionally.
Substantial evidence suggests that listening, speaking, reading, and writing are learned interrelatedly rather than sequentially by young children (Whitehurst and Lonigan, 1998; Teale and Sulzby, 1986).	Thus, LEAD21 provides learning/teaching experiences in all of the language arts simultaneously rather than first concentrating on oral language and then on reading and finally on writing.

Author Biography

Dr. William Teale is Professor of Education at the University of Illinois at Chicago. Author of over one hundred publications, his work has focused on early literacy learning, the intersection of technology and literacy education, and children's literature. The book *Emergent Literacy: Writing and Reading*, which he co-edited with Elizabeth Sulzby, has become a standard reference in the field of early literacy. Dr. Teale has worked in the area of early childhood education with schools and libraries across the country—with organizations such as Children's Television Workshop, RIF, and Reach Out and Read; and on productions like *Read Between the Lions* and the National Head Start Association Heads Up! Reading Program. He is a former editor of Language Arts and a member of the Reading Hall of Fame. His current focal research project is funded by the U. S. Department of Education. Called Charting a Course to Literacy Early Reading First, it involves developing model preschool literacy curricula for four-year-old children in urban, low-income Chicago Public School charter schools.

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