Bridges to Literacy: *Early Routines That Promote Later School Success*

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Photo: S. Rosenkoetter

Will this baby be "ready" for school? Will she "like" school? Will he become a reader? Will she gain the skills needed to garner a "good" job in adulthood? What are developmentally appropriate ways to foster pre-academic growth? These questions are increasingly asked by parents, child care providers, early educators, and policy makers at every level from the neighborhood parent group to the White House.

Two recent reports from the prestigious National Research Council (NRC) explored how children become "ready for school" and develop literacy (NRC and Institute of Medicine, 2000; Snow, Burns, & Griffin, 1998). After reviewing existing research, one panel concluded, "The majority of reading problems faced by today's adolescents and adults are the result of problems that might have been avoided or resolved in their early childhood years" (Snow et al., 1998, p. 5).

Leadership in making literacy a priority with even young children comes from the highest levels. "Every child a reader" was President George Bush's number one domestic goal until the tragedies of September 11. Mrs. Laura Bush has been traveling the country to share her literacy development message. The President has appointed several well-known early childhood researchers to key posts in the U.S. Department of Education. He has proposed to coordinate the emphasis on reading across all Federal programs and departments.

Legislatures throughout the nation are creating programs to foster reading, and governors are regularly photographed reading to children in preschools. In 1998, Federal law decreed a standard that children will recognize 10 alphabet letters before exiting the Head Start program at age 5 (Head Start Act). In elementary school, standardized tests evaluate every child's reading status.

This national momentum suggests that we should examine infant, toddler, preschool, and family routines with an eye to emergent literacy. Changes in the understanding of literacy development support this exploration. As recently as 25 years ago, people thought reading began in first grade, when children were "ready" for it. Over time, however, that view has shifted. In the 1980s, a few scholars in New Zealand, Canada, and the U.S. began to study the daily activities of families and classrooms to see which

practices provide young children with a foundation for later success in reading. They called these beginnings "emergent literacy" (Schickedanz; 1999; Teale & Sulzby, 1986). About 10 years ago we began to see ads for phonics cards for 2-year-olds. In that climate, the National Association for the Education of Young Children (NAEYC) and the International Reading Association (IRA) issued a joint position statement on developmentally appropriate ways to help young children learn to read and write (NAEYC & IRA, 1998). The statement underscores the many ways that early childhood routines and experiences begin the process of creating readers.

Prompted by the widespread interest in developing initiatives to support reading and school readiness, this article describes foundations of literacy and discusses strategies that early childhood professionals can use to facilitate its development. A number of bridges to literacy can now be built with confidence!

The Basics

Reading emerges after instruction, in children who are well nourished and thriving in safe homes and neighborhoods, in children who are nurtured by strong families who receive the services they need from living in caring communities (NRC and Institute of Medicine, 2000). Learning to read is affected by "the foundation skills of phonological processing, print awareness, and oral language" (Whitehurst & Lonigan, 2001, p. 12). Where these components are lacking, children may be "unready" to begin some of the activities in the kindergarten's literacy curriculum, and they are more likely than other children to be poor readers in the long term (Whitehurst & Lonigan, 2001). The new three-word aim of the U.S. Department of Education's Early Childhood Division in the Office of Educational Research and Improvement underscores the priority of building an adequate foundation for later reading success: relationships, resiliency, and readiness.

Literacy Is a Complex Skill

Learning to read during the school years requires very fine discriminations in sounds, visual symbols, and nuances of meaning. The precursors of these discriminations are developed in early childhood. For example, Marilyn Jager Adams asks, "In what kind of reasonable world would people agree to call a dachshund and a St. Bernard 'dogs,' while calling one of these characters a 'C' and the other a 'G'? To us, the answer is obvious: in the kind of world where people use C's and G's discriminately for reading and writing . . . " (Burns, Griffin, & Snow, 1999, p. 54).

at a glance

- Decoding and meaning making are the two central skills of literacy.
- Families and communities can promote later academic success for very young children through relationships that include print, responsiveness, repetition, modeling and motivation, and oral language.
- Additional bridges to literacy for young children are experiences in the world, with the tools of literacy, with sounds, with decontextualized language, and with writing.
- In young children's play, emergent understandings are integrated, practiced, and tested in a safe environment.

Literacy's vital tasks include the following:

- *Decoding* — to look at squiggles on a page, combine them in the same ways that the writer intended, and pronounce them as words; and
- *Meaning making* — simultaneously, to take those words, both individually and in groups, and give them meanings that match those of the rest of literate society and one's own culture and subcultures.

The two literacy tasks are incredibly complex and, in good readers, interdependent. Indeed, no other species can do these tasks and read. Learning these skills depends upon (a) genetic gifts which almost every baby has, (b) facilitative experiences with people and objects which every young child can have, and (c) cultural values as diverse as America's people.

Bridges to Literacy

Following are meaningful ways that families and communities can promote later academic success for infants and children. The early years should provide the infrastructure to support later learning of specific literacy skills. However, elementary schools may also need to go back to these elements when a child has not experienced them during the early years.

1. Relationships That Include Print

During the early years, reading together is more significant than targeting any specific content or skills. While sitting on a lap, rocking in a chair, or even sprawling side-by-side on the floor with his favorite adult, the toddler builds very positive associations and happy preverbal memories of "reading." The material might be a picture book, the "funny" papers, or a religious storybook, to name just a few possibilities. Unfortunately, the latest statistics reveal that more than 30% of parents say they do not read to their preschoolers, even once a week (National Education Goals Panel, 1999). Thus, sharing routines must be built into group care situations as well as into individual family schedules. With young children, reading times can be very brief, but they must happen every day. Shared reading helps children explore new worlds, laugh across generations, and learn about amazing things as well as ordinary things.

Shared reading also provides security and calms children's restlessness. A provocative example of this is the story of Cushla (Butler, 1980), an irritable baby who suffered a great deal of pain. Her tired and desperate family calmed Cushla even in her first months of life by pacing and reading the same books over and over again. Not only did holding Cushla and reading the familiar books ease both the child and the adult caregivers, but, in time, the characters in those books became trusted friends of little Cushla and a very real part of her world.

2. Responsiveness

Marilyn Shatz (1994) provides countless examples of responsiveness as she follows her grandson Ricky's interactions from 15 to 36 months. Wherever Ricky tries to go verbally, a loving adult is ahead of him, smoothing the path and making his efforts successful. Ricky learns three things: language is fun, he can do it well, and using words gets results — all important foundations for early literacy. The family's tools for responsiveness are attention, repetition, expansion, and affirmation, always keenly following the child's lead. James MacDonald of the Ohio State University advises, "play ping pong, not darts" (personal communication, 1985).

3. Repetition

One way to be responsive to young children is to develop routines that provide stability in their schedules and underscore family values. Language games or play with board books during diapering, food preparation, dressing, or car trips can be generalized into other activities and settings. Within the familiar structure, children can innovate. Recent brain research shows that repetition of familiar actions and words helps young children form and maintain neuronal connections in their nervous systems (De Boysson-Bardies, 1999). A youngster may seem never to tire of requesting peanut butter and jelly for lunch, milk in the same cup, or the identical bedtime story 25 nights in a row; repeating once an hour the same question; or practicing all day on a one-line TV jingle that drives older siblings crazy. Such repetitions are developmentally appropriate and also cognitively useful, building a physical as well as an affective foundation for later literacy.

Home visitors can use and encourage parents to use certain familiar phrases to cue activities or transitions: "time to choose," "let's have some lunch," or "scrub a dub dub." Families and caregivers can pepper the daily schedule with rhymes and rhythms. Surrounding children with diverse sounds and words, even as we respond to their initiations, prepares a foundation for school-age literacy development.

4. Modeling and Motivation

Family routines like the bedtime story, making cookies each week from a recipe, scanning the TV Guide together to learn what's coming on, or identifying the golden "M" when driving into McDonald's promote language and literacy development. Such routines demonstrate that reading is important in the lives of older people and draws attention to the value of reading for coping with everyday life.

Environments in which toddlers and young children spend time — from home to child care to the church nursery — should abundantly include print in one or more languages at children's eye level. When children draw pictures, their verbal comments should regularly be written on the page and read aloud. People responsible for young children should ostentatiously read and write in their presence and freely draw attention to what they are doing. After all, reading and writing are activities that "big people" do!

Research indicates that by the time children enter kindergarten, most who have been in group care have internalized the basic components of a story: the protagonist, the setting, the challenge, the reaction, the consequence, and the moral or lesson (Rosenkoetter, 1991). These elements are the framework of most stories. The internalized script for a story helps children gain meaning from new stories they hear. Development of such scripts comes from children's actively hearing and retelling stories frequently, organizing details, and testing hypotheses about outcomes of sequential events (Morrow, 1989). Children who fail to hear stories regularly develop the internal script for stories more slowly, and thus they have difficulty making sense of new stories that they hear. Acting out stories, creating original stories, role playing, and referring to story characters during everyday activities are additional ways to connect prose to daily life (Paley, 1990).

5. Oral Language

One of the most significant ways professionals can support families is to model responsive talking in conversations and play with infants and young children. Similarly, encouraging and demonstrating side-by-side verbal descriptions (also called parallel talk) of work and play activities to children helps them associate language with actions and objects (Weitzman, 1992).

Parents differ greatly in how much they talk with their children. Betty Hart and Todd Risley (1995, 1999) recorded every word and action of 42 parents and their children for 1 hour per month over roughly 2½ years from the beginning of the child's speech until he or she was 3½. The authors found that individual families, whatever their income, were remarkably consistent in how much they talked with their children from month to month across the 2½ years of the study. Race was not a significant factor in how much talking happened in the home. Some families, mostly professionals, addressed 2½ times as many utterances, on average, to their children over the course of an hour as did the families with lowest income. Quantity of words was the distinction between the two groups — not the vocabulary or the grammar or the richness of language when it was exchanged. Because the more talkative families had so many more verbal interactions, however, there were also many more positive and encouraging verbal interactions with their children.

It is important to note that the children spoken to less did learn to talk and eventually to read. However, in later childhood their vocabularies were more limited, their grammars were more restricted, and their total output was also less, continuing on into middle school. Their school performance, including reading, was also at a lower level. The investigators report that the differences were great, and they were durable over time.

According to Hart and Risley (1999): "The most important aspect of parent talk is its amount. Parents who just talk as they go about their daily activities expose their children to 1000-2000 words every hour. . . . What children need is time, not tricks. The data show that the first 3 years of experience put in place a trajectory of vocabulary growth and the foundations of analytic and symbolic com-

petencies that will make a lasting difference to how children perform in later years" (pp. 192-193).

6. *Experiences in the World*

A reader takes the sounds of known words and compares them with words on the page. Then the reader is ready to put those words with personal experiences to make meaning: "C-A-T, oh, cat!" Experience with cats helps the child to guess the word and the meaning of the word more quickly and then to predict how that animal might behave in a story or nonfiction description.

Sometimes strong personal experiences may actually lead the beginning reader in decoding words. For example, "when my Mama and I go downtown, we take the____(bus)." The experience of bus riding leads the reader in figuring out the word "bus," even without "sounding out" the word. The more concepts a child has experienced in her life, the easier these guessing games, called world identification, can become.

Personal experience is critical in finding meaning. For example, every Kansas child among the more than 50 tested by the first author quickly pointed to pictures of "Band Aid" and "birthday candles" when asked to do so. The children also remembered stories about those topics and retold them with great accuracy. Very few of the Kansas 4-year-olds, however, recognized the spoken words "wolf" or "mountain." And — surprise! — stories about those concepts were poorly retold.

Providing and discussing ordinary experiences with toddlers and young children promotes school readiness. Even eating chicken at Grandma's or going to the park offers numerous opportunities to verbally introduce infants and young children to people, objects, and actions they will meet later in print. Watching TV can also assist in building knowledge about the world, if adults and children watch developmentally appropriate programs together and talk about what they see. Cooperative play experiences, such as housekeeping or fantasy adventures, can also help to create foundations for meaning and sequencing in later literacy.

7. *Experiences with the Tools of Literacy*

The tools of literacy are print in daily life, such as catalogs, newspapers, sale bills, and billboards; picture books and story books of all types; magnetic letters for the refrigerator; writing utensils and writing surfaces of every kind; and, yes, computers, which even 3-year-olds and young children with significant disabilities can use if they have sufficient opportunities and support in learning to operate. We must be sure that our young children and their families are surrounded by the tools of literacy. Sometimes encouraging this exposure just involves gathering and distributing existing resources. Other times it involves assertiveness, for example, to ensure that the Federally funded 21st Century Community Learning Center in the neighborhood school includes young children and their families in computer access activities as well as other citizens of the district.

Every home needs developmentally appropriate books, and every home can have them. Getting a library card and attending the library's story time should be a toddler privilege in every neighborhood, perhaps assisted by a home visitor or bookmobile. Numerous civic groups, Reading is Fundamental, and corporate sponsors like Pizza Hut will provide books to families as well as schools if home visitors or program leaders make the effort to set up a system for distribution. Adolescent and adult volunteers can be recruited to come to child care centers to read to babies and children. These kinds of activities take organization, but many different people can contribute, because school readiness is every community's issue.

8. *Experiences with Sounds*

Reading includes pairing visual symbols with sounds. A child who has difficulty learning those connections will have difficulty learning to read. A major recommendation of the National Research Council is that people who work with children from birth to age 6 *purposefully* increase what they do with the sounds of language. Caregivers and family members can read favored storybooks again and again, until the child "reads" the pages from memory. Pictures, graphic symbols, and word sounds become associated.

Research shows clearly that children who are more competent in manipulating the sounds and rhythms of the language become better and more fluent readers (Snow et al., 1998). Playing with rhythms and rhymes daily from the earliest months builds essential auditory competencies for literacy. Word play with similarities ("Tell me a word that starts like 'pig'") and differences ("Let's say 'pig' with a buh sound") help preschool children attend to the sounds or phonemes of the language. Songs that play with language provide delightful practice. One favorite is Raffi's "apples, apples, apples, and bananas," a chant that repeats the same four words again and again, simply changing the vowels: eeples, eeples, eeples and beeneenees; opples, opples, opples and bononos. Favorites for younger children are "Old MacDonald Had a Farm" and "Bingo," plus numerous rhymes drawn from particular ethnic or religious traditions. Even jump-rope rhymes, little ditties made up by caregivers, jingles that use the child's own name, and collections of silly nonsense syllables are useful for encouraging attention to individual sounds. These effective methods build phonological awareness without conducting phonics drills or introducing boredom into the fun of sound play. A more advanced skill for children is phonemic awareness, which involves breaking words into component parts; for example, clapping or hitting a drum once for each syllable in a long word.

9. *Experiences with Decontextualized Language*

Young children's reality is their own time and place; that is to say, young children are totally contextualized. To become readers, children must begin to imagine times and places that are not physically present. To become writers, children must begin to take the perspective of a nonpresent reader and provide details to transport that reader to the situation being described. These are very difficult skills for children to learn because, cognitively, they are just beginning to develop the ability to take the perspective of another person. We help children by daily telling joint stories about people or places encountered but not currently here; that is, we scaffold children's retelling of an event to a person who was not pre-

sent through comments like, "and where were we when we saw the mouse?" and "Who was it who had a birthday and gave us cake?" When asked questions, children often know the information. They just don't immediately realize that they need to provide context for the events they will recount.

Games like Peek-a-Boo or Hide-and-Seek, played over time, prompt the child to imagine what another person is seeing. A strategy for building decontextualized language in preschool-age children is to share riddles and jokes. They build language skills by forcing the child to try to take the perspective of someone else.

10. Experiences With Writing

Emergent writing proceeds apace with emergent reading. Both involve developing the precursors to competence in more complex literacy skills. Like reading, emergent writing has two parts, the actual formation of letters and words (akin to decoding in reading) and the provision of meaning through word choice and context. Children's first writing is scribbles. Next, often around 18 months of age, comes a combination of drawing shapes to represent objects in the environment and making scribbles to imitate actual linear writing (Ferreiro & Teberosky, 1982). Before children use actual letters, they often break scribbles into "words" by interspersing spaces and inserting dots to imitate periods. First letters include many reversals and lines that overshoot or undershoot their intended junctions. First words fly around the page. They typically consist of "invented spelling"; that is, letters that might be the word as the child "hears" its sounds: "kot" for coat or "fns" for fence. It is recommended to encourage children to write a great deal in preschool and early primary grade with few corrections. Again, greater enjoyment of writing early promotes greater output, gradual movement toward conventionalized spellings, and increased self-confidence (Richgels, 2001). Frequently, this emergent writing approach must be explained to parents who learned to write under a different philosophy.

Writing begins with developing trunk and limb control, postural stability, and fine motor manipulations in the first 2 years of life. First efforts at writing are whole arm movements on big sheets of paper or grocery sacks. Oral story creation with an adult's written transcription can begin with short accounts by 2- and 3-year-olds. Another approach is for adults to write down the words that children say about a picture they have drawn, or a team of three or four children can craft an object or a picture and then dictate a story about it. Daily journal writing by children with picture symbols can begin at age 3 or 4, though their products will bear little resemblance to later journal entries. These practices help young children to realize that written words "stand for" spoken words, and words represent objects or actions or ideas. Children learn that writing and reading can extend one's influence, especially among people who read a great deal.

11. Hypothesis Construction and Testing

To make sense from print, children must combine a number of observations and risk a guess as to meaning. We help children do this by conversations that ask them to consider various pieces of data and then summarize or make choices. For example, "It rained last night. On our walk today, we've seen lots of robins eating worms. Where did they come from? How could we find out?" or "It's time for lunch and all the forks are dirty. What could we do?"

Play Pulls It All Together.

Although this article divides strategies for emergent literacy into 11 bridges, all come together in the play of the child, where emerging understandings are integrated, practiced, and tested in a safe environment. McLane and McNamee (1990) describe 3½-year-old Molly, who

> made a drawing and then used it as a part of a dramatic pretend play production. She drew an "M" shape, which she then turned into a rabbit's face. Using different voices, facial expressions, and gestures, she then transformed this simple drawing into the central character in a pretend play narrative about "Flopsy, the talking rabbit." In using the first letter of her own name as the basis for her drawing-story-drama about one of the characters from Peter Rabbit, Molly was using a culturally agreed upon symbol [the letter M] in a personally meaningful way. Her dramatic production illustrates the richness and variety with which some young children combine drawing, writing, talking, and pretend play to create imaginary worlds and to express personal meaning through the symbols the culture makes available to them. (p. 12)

Adults who can arrange emergent literacy environments and scaffold children's interactions or stories promote children's growth in profound ways that are only beginning to be understood.

Some Challenges in Emergent Literacy

Shirley Brice Heath in *Ways with Words* (1983) demonstrated how differently three American cultures approach language and literacy. Areas of difference likely to have an impact on young children's future literacy and school success include the amounts and kinds of adult-child interaction, the ways important information is passed from generation to generation, the nature of vocabulary employed, the uses of print materials in children's environments, the presence or absence of literacy activities evidenced by older models, and time use by adults. Some families teach their children by verbal discussion and systematic description. Others use physical demonstration or side-by-side working, while others use storytelling. Still others wait for professionals to teach children "school subjects." These preferences are part of larger cultural practices and are passed on from generation to generation. The important actions for emergent literacy are for more competent speakers to share words and print with young children each day and to pair words with their actions and feelings as these occur.

"We don't want to read stories to our children," a parent said. "For my people, it is a waste of time." Well, then, since

the modeling of reading is important to emergent literacy, is there something else that can be read? Maybe a catalog, a calendar, a simple recipe, the place mat at the restaurant, or the directions for assembling a machine? Can a valued family story be made into a children's book? How about creating a book of photos of the family's daily routine with labels such as "eat," "sleep," "play," and "watch TV"?

Another challenge is that many people do not realize that babies benefit from seeing books. Mentors needn't actually read the words in a book to a baby. Shared picture pointing and discussion are helpful to an infant, as are reading signs aloud, playing with words, or mutual recounts of a day's activities. Experts are nearly unanimous in stating that babies should routinely experience shared books as soon as they experience shared talking, that is, during the first weeks and months of life (Butler, 1998; Schickedanz, 1999).

Barriers to Literacy Development

Literacy problems in the primary grades and beyond cross racial, linguistic, and socioeconomic groups, but the children at greatest risk for reading problems in elementary school are those who start kindergarten with weak language skills, poor abilities to attend to the sounds of language as opposed to its specific meanings, deficient letter recognition, and unfamiliarity with the basic purposes and strategies of reading. Failure at literacy is much more common among children in poverty, children of color, children whose primary language is not English, those with preschool hearing impairments, children with preschool language impairments, and students whose parents had difficulty learning to read (Snow et al., 1998). Because school failure is "catastrophic" (Whitehurst and Lonigan, 2001, p. 12) in today's society, it is especially important that young children in these risk groups have access to high-quality, developmentally appropriate emergent literacy experiences prior to effective formal reading programs in the primary grades. It is also important for caregivers to screen young children for delays or disabilities and to refer their families to special services for additional assessment and, perhaps, early childhood intervention (Sandall, McLean, & Smith, 2000).

Learning to read is one task for which the nation is truly saying, "It matters." Now families, communities, and legislators need to work together to build the bridges.

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WEB SITES RELATED TO EMERGENT LITERACY

Babies and Books: http://www.ptialaska.net/~sitkhosp/books.html
Babies and Books: http://www.scholastic.com/parentandchild/babyroom/98/03.htm
Babies and Books: http://www.literacytrust.org.uk/Research/babiesbooks.html
Babies Need Books: http://www.slco.lib.ut.us/Babies99.htm
Born to Read: www.ala.org/alsc/born/html
Children's Literature Resources: http://discover.lpl.london.on.ca/static/kids/147
Culturally and Linguistically Appropriate Services Early Childhood Research Institute: http://clas.uiuc.edu First Book: http://www.firstbook.org
First Book: http://www.firstbook.org
How to Read to Baby: http://www.scholastic.com/parentandchild/babyroom/00/01.htm
Ideas for Babies and Preschoolers: http://www.library.strathcona.ab.ca/childrens/preschoolf.htm
International Reading Association: http://www.reading.org
Laptot (Carnegie Library of Pittsburgh): http://www.clpgh.org/clp/SH/laptot.html
Lists of book lists: http://www.vermontbook.org/resources.htm
Reach Out and Read: http://www.reachoutandread.org/overview.html
U.S. Department of Education's Early Childhood Institute: http://www.ed.gov/offices/OERI/ECI
ZERO TO THREE: http://www.zerotothree.org