Fostering Language and Literacy in Classrooms and Homes

David K. Dickinson and Patton O. Tabors

arly childhood educators should be delighted. Bolstered by the accumulating research on the importance of early literacy, policymakers are beginning to craft policies with the potential to benefit young children. Researchers with long-standing interest in early literacy now hold major posts in the U.S. Department of Education, and new funding initiatives are being launched to fuel research and expanded services. The Head Start Bureau, which has begun to require programs to track the growth of individual children, has greatly expanded efforts to support children's intellectual growth, giving literacy special attention. States also are focusing new attention on early literacy.

However, we must be aware that heightened visibility brings risks. The new emphasis on accountability will put added pressure on teachers to raise children's scores on assessments. To meet this challenge and take advantage of the current climate, now is the time for early childhood educators to ensure that programs are of the highest quality. Staff at all levels must have a basic understanding of what early literacy is and an

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awareness of the experiences that support its development. Without such understanding there is a danger that programs will be mandated to address

literacy skills in ways that neglect what we know about how young children construct literacy. And well-meaning teachers may be tempted to return to heavy-handed didactic instructional methods that have been discouraged for years. Of particular concern is the possibility that early literacy efforts will take a single-minded focus on print-related dimensions and fail to recognize that oral language is the foundation of early literacy.

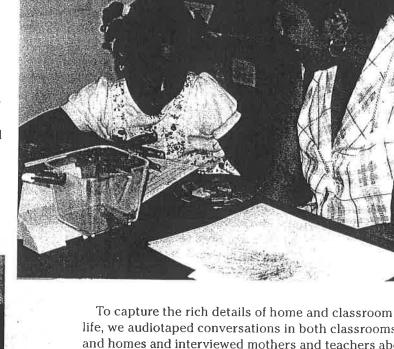
This article discusses how early childhood programs can make a difference through classroom-based experiences and by efforts of preschool staff to help parents communicate with their children in ways that build the language skills critical to early literacy. We do not discuss developing phonemic awareness or knowledge of the alphabet and other print-based activities in the classroom, not because they are of less importance, but because we wish to highlight the importance of oral language. In the rush to embrace literacy in early childhood settings, we fear that oral language may be overlooked.

We based our study on the theoretical assumption that rich language experiences during the preschool years play an important role in ensuring that children are able to read with comprehension when they reach middle school.



Thinking about early literacy

In 1987 we (that is, the authors, Catherine Snow, and many others) began the Home-School Study of Language and Literacy Development, an intensive examination of how parents and teachers support the development of language skills in young children from families with low incomes. Children living in poverty are less likely to become successful readers and writers—yet many *are* successful. What makes the difference? We wanted to identify the strengths in homes and in preschool programs that can build strong language and literacy foundations, so that we can ultimately make these strengths part of all children's lives. To accomplish this goal,



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we followed children from preschool through seventh grade (and, more recently, into high school).

Here we briefly summarize some of the key findings of the language and literacy development of 74 of the children during the preschool time period (Dickinson & Tabors 2001). Their families were eligible for Head Start, but about half used state vouchers to attend private programs. They lived in eastern Massachusetts, and all families reported that they used English in the home. We based our study on the theoretical assumption that rich language experiences during the preschool years play an important role in ensuring that children are able to read with comprehension when they reach middle school (Snow & Dickinson 1991). This hypothesis is supported by the findings of other researchers that children's language and literacy skills in kindergarten are strongly related to later academic success (Snow et al. 1991; Cunningham & Stanovich 1997; Whitehurst & Lonigan 1998).

To capture the rich details of home and classroom life, we audiotaped conversations in both classrooms and homes and interviewed mothers and teachers about their experiences with the children (see Dickinson & Tabors 2001 for details). From this information we sought to identify the kinds of interactions and experiences that made a difference in children's later literacy skills. To see what effect these preschool interactions and experiences had on literacy development, we administered a battery of language and early literacy tasks to the children on a yearly basis, beginning in kindergarten. We assessed the children's ability to understand words, their ability to produce narratives, and their emergent literacy skills, including letter knowledge, early reading and writing, and phonemic awareness.

The language skills needed to build the foundation of reading and writing fall into different clusters (Snow &

Dickinson 1991). Some skills are required to carry on informal conversations with friends and relatives. What's typical of these interactions is that people understand the meaning of the interaction largely because the ongoing activity makes clear what they are talking about. For example, you probably would be baffled if you were simply to read a transcript of talk that occurred during

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peekaboo or the feeding of a baby. Faceto-face talk relies on gestures such as pointing to objects, intonation, and the speakers' shared experience.

Another cluster of language skills is needed when people must make sense of words without all these immediate supports. They need to understand language apart from the face-to-face contexts where it is produced. For such occasions people need skill in constructing extended discourse that conveys new information that is not available from what one can see and hear. Later academic work, including comprehension of most texts, requires these abilities. We expected that certain experiences would build the specialized kinds of language skills that children need to

• Exposure to varied vocabulary. Knowing the "right word" is vital if one is to communicate information clearly. Large vocabularies have long been known to be linked to reading success (e.g., Anderson & Freebody 1981); they also are a signal that children are building the content knowledge about the world that is so critical to later reading (Neuman 2001).

become literate. Indeed, our analyses of homes and classrooms revealed three dimensions of children's experiences during the preschool and kindergarten years that are related to later literacy success:

- Opportunities to be part of conversations that use extended discourse. Extended discourse is talk that requires participants to develop understandings beyond the here and now and that requires the use of several sentences to build a linguistic structure, such as in explanations, narratives, or pretend talk.
- Home and classroom environments that are cognitively and linguistically stimulating. Children are most likely to experience conversations that include comprehensible and interesting extended discourse and are rich with vocabulary when their parents are able to obtain and read good books and when their teachers provide classrooms with a curriculum that is varied and stimulating.

We now will discuss each of these dimensions, describing what we found in the homes and the preschool classrooms that the 74 children attended. We spotlight one child in the study, a boy named Casey, who had both a very supportive family and a very supportive classroom environment.





Varied vocabulary

Opportunities to hear and use a variety of new and interesting words in conversations with adults were especially important to children in our study. These conversations happened at home and in preschool classrooms.

At home

For the Home-School Study we recorded the children in conversation with their mothers during book readings and toy play sessions and with their mothers and other members of their families during mealtimes. In all three conversational contexts we found the adults using new and interesting words with the children. Even more



important, we found that the adults used techniques such as definitions and synonyms, inference and comparison, the child's prior experience, or the semantic, social, or physical context to help the children understand what the new words meant (Tabors, Beals, & Weizman 2001).

Some families used these techniques more than others—Casey's family, for example, used more new and interesting words than the average for the whole group. How often new words were used also made a difference. On average, children whose families used more new words understood more words and had better emergent literacy skills later in kindergarten.

The following excerpt, from a mealtime conversation at Casey's home when he was four years old, is an example of the type of conversation that supports young children's vocabulary development. In this case, Casey and his dad are talking about

a visit by firefighters to Casey's preschool classroom that day. Casey shows that he learned a lot about firefighters and their equipment, and his dad helps him learn more about a specific new word, oxygen.

Father: You know what oxygen is? That's-

Casey: Yeah, you put that, and you get air from it— [unintelligible].

Father: That's the air, because when you go in fires . . . smoke gets in, and [coughs] you cough and you can't breathe. You can use that **oxygen** and get some fresh air in you.

Casey: Does it go behind your back?

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Father: Yeah, like a scuba diver.

Casey: Oh, yeah, we get them at, uh, wait, um, Ann [his teacher] told us [unintelligible]. (Dickinson & Tabors 2001, 94)

Of course, homes are not the only source of new words for children. As Casey's example shows, preschool classrooms also help children acquire vocabulary. So let's

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turn to what we found about vocabulary use in preschool classrooms.

In the classroom

We taped child and teacher conversations in the classrooms during free play, group times (Dickinson 2001b), book reading (Dickinson 2001a), and mealtime (Cote 2001). Across all these settings, children benefited

from conversations that included more varied vocabulary. Interestingly, what mattered was not just the variety of words that the teachers used but also the variety of words that the children used as they spoke with the teachers. We studied only one or two children in each classroom, so this finding suggests that their language growth was bolstered by input from teachers as well as from other children. We speculate that teachers who use interesting and varied words may help to create a vocabulary-rich environment—a classroom in which children are exposed to and encouraged to use varied words.

To see what such a classroom looks like, let's visit a Casey's preschool. This classroom, run by the public schools, is specially designed to support language development of children identified as needing extra support. On the day the researchers recorded him, Casey engaged in at least 30 minutes of well-developed, active pretend play with his best friend Bryan. They created a highly imaginative scene involving sharks, with which they were initially in fierce combat. At one point, when the two boys were killing sharks, the "bad guys," teacher Ann Greenbaum entered their play (new vocabulary words are indicated in bold type):

Teacher: Oh. So you're going to get the sharks. Do you need to kill them, or do you move them to a different place so they can't hurt anybody?

Casey: Kill them.

Teacher: Kill them. You have to kill them?

Bryan: Yeah.

Casey: There's water already in the cage.

[One teacher-child exchange deleted.]

Teacher: Oh, so they're in cages that are filled with

water?

Bryan: Yeah, it's a water cage. . . .

Teacher: You must be very **brave** and **daring** men to go down there and take all these sharks back to this special place.

Casey: We're protecting them.

Teacher: Do you have to wear special suits? What kind do you wear in the water?

Bryan: I wear climbing. **Teacher:** A climbing suit?

Casey: Yeah.

Teacher: What do you wear?

Casey: A shark suit.

Teacher: Those things on your back. Are those the **oxygen tanks**? To help you breathe underwater?

Bryan: They can breathe underwater.

Teacher: Wow, that's a special trick to learn how to

do. (Dickinson & Tabors 2001, 239-40)

Notice how deftly Ann helps make explicit the elements of their fantasy and suggests a possible alternative direction for them to pursue. She observes that they are "killing sharks" and, after finding out why, she restates what she understands: "Oh. So you're going to get the sharks." Building on this she further clarifies where the sharks are being held and then discusses the equipment the children need. In the course of her comments she uses new words. Her use of oxygen is especially noteworthy because she models the correct use of oxygen tanks and makes explicit their purpose, "to help you breathe underwater." In much the same way skilled teachers seed dramatic-play areas with new props that encourage elaborated play, Ann leaves the boys with an interesting word that they might incorporate in their play. (Interestingly, in the dinnertable conversation with his father, Casey recalls talking about oxygen tanks with Ann, showing how conversations at home and school can reinforce a child's vocabulary development.)

Later we observed Ann having a similar exchange with a group of children engaged in dramatic play:

Child: I'll check the oven.

Teacher: What temperature does it have to be put at? ... When you put on the oven, you have to put it at a certain temperature to see how hot it is. So, you might turn it to 100 degrees, or 200, or 300, or 400, or 500.

Child: 500.

Teacher: 500? That's usually—that's the hottest, and that's **broiling.** (Dickinson & Tabors 2001, 240–41)

Note how Ann again introduces interesting words and gives brief explanations of each. She provides explanations of what ovens do, how the temperature is set, how hot 500 degrees is, and what *broiling* means. Ann

represents the type of exemplary support for vocabulary learning that is possible in preschool classrooms when teachers intentionally focus on fostering children's language development. Interactions such as these contributed to the vocabulary of the children in the study at the end of kindergarten, effects that persisted as far as the end of fourth grade (Roach & Snow 2000).



Extended discourse

Extended discourse is an important contributor to children's language and literacy development. Adults can extend or draw out their talk with children, enriching the conversation and helping children go beyond the here and now. Again, both home and preschool may be settings for this discourse.

At home

In looking at the transcripts of the conversations we recorded with parents and children reading books together, playing with toys, and during mealtimes, we found that each of these settings provided opportunities for extended talk that helped the children recognize and use these types of talk later in school. To see what we mean by extended discourse, let's listen as Casey's mother reads a book about elephants. This mother doesn't just read the book with her child; she also discusses it at length with him, helping him understand the information and tying it to his personal experience.

Mother: [reading] "African elephants have a dip in their backs. They also have ridges on their trunks, which end

in two points. Asian elephants have smoother trunks that end in just one point." See the dip in his back?

Casey: I know why he's different. He has them [pointing to tusks], and he doesn't.

Mother: He has tusks. Well, this is a female. [reading] "Asian elephants often live in forests and swamps. This Asian cow elephant lives in Nepal, a small country north of India."

Casey: Ma! In India?

Mother: Yeah, do you know somebody from there? Deepack? Your friend? Yeah. [reading] "African elephants live in the plains as well as forests. This African elephant lives in the open grassland. It flaps its huge ears to help keep cool in the hot African sunshine." Because it's very hot in Africa. (Dickinson & Tabors 2001, 39)

Casey's mother is using what we call *non-immediate talk*—that is, she gives Casey information beyond what is immediately available from the book. This type of conversation is an important preparation for talk about books at school (De Temple 2001).

Other types of extended discourse we found in the transcripts were fantasy talk during toy play (Katz 2001) and explanations and narratives during mealtimes (Beals 2001). The important thing about all of these forms of extended discourse is that they occurred during normal conversations in everyday activities. Some families used these types of talk more often than others, and their children were better at telling a narrative in kindergarten than were children who had less exposure to extended conversations.

In the classroom

Free play, or choice time, is the ideal opportunity for children to engage in pretend talk, a type of extended discourse that predicts stronger language and literacy development. Ann Greenbaum's skilled conversations demonstrate some of the features of teachers' extended discourse that are especially powerful supports for children's oral language. In her exchange about sharks, she built on and extended the children's comments and used varied words ("You

must be very brave and daring men to go down there").

Another important but more subtle feature of Ann's knack for conversation is her ability to fine-tune the

balance between talking and listening to the children. In looking at the ratio of teacher-to-child talk, we found

that children did better on our language and literacy assessments when their preschool teachers talked less during free play. This finding may reflect the fact that teachers are better attuned to children when teachers listen more. It also might point to the benefit of allowing children to put their ideas into words.

We also examined teacher-child talk during group meetings and large-group book reading. During group meeting times we found that the percentage of all talk that provided children with information or engaged them in thoughtful discussions was predictive of later development. Similarly, during book reading sessions, conversations encouraging children to think about the story were beneficial. The following is a conversation that occurred as the teacher read a book in which a child finds a dinosaur and brings it home. The poor dinosaur is overwhelmed by loud noises. Here we see the teacher using extended discourse to encourage the children to analyze the dinosaur's reaction and to recognize the emotion of fear.

Teacher: How do you think Dandy feels, Susan?

Susan: Bad. Teacher: Why?

Susan: Everybody take a look at the picture.

Teacher: I think he not only feels sad, he feels very-

Children: Happy.

Teacher: I don't think so. What did Dandy do when

the truck came?

Todd: Shook.

Teacher: He was scared—he shook. And what did he do when the airplanes zoomed overhead? And when

the train roared by? Did Dandy like loud noises?

Children: No!

Teacher: How is Dandy going to feel with all this?

Children: Bad. Sad.

Teacher: Not only sad. What else?

Children: Mad!

James: Scared!

Teacher: You got it, James! He's going to be very scared! (Dickinson & Tabors 2001, 190–91)

There was an interesting difference between the kind of discourse that was most beneficial

in the two settings. During free play, relaxed back-andforth exchanges with limited amounts of teacher talk proved helpful, but teacher efforts during group times to keep individual children talking detracted from the group experience. This result may show that when

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teachers engage in excessively long interactions with one child, the other children "tune out."

Environments that support oral language

Visits to the children's homes and classroom occurred only once a year during the study because of the large amount of language data that we collected each visit. Although we were able to collect a great deal of information about the types of talk used in these contexts on those particular days, we realized

that we couldn't know how often such conversations occurred in normal home life or during the typical preschool day. For these reasons, we interviewed mothers and teachers to help us understand how supportive the overall environment was for the children's language and literacy development.

We used the mothers' answers

- · How often do you read to your child?
- Does anyone else read to your child and how often?
- How many children's books do you own?
- Do you get books from the library or bookstore?
- Do you read anything else with your child?

We found a lot of variation on this measure of home support for literacy. Not surprisingly, Casey's mother scored the highest in the entire sample on the answers to these questions. Casey was hearing many books and other materials read to him by a lot of different people. His family was buying books in addition to getting them from the library. How did this low-income family, and others with high support for literacy, manage to buy books? Many of the mothers mentioned that they always asked relatives to give their children books on special occasions and that they were always on the lookout for books at tag sales.

Of course, having the books is only the first step in the process. It is also necessary to have willing readers who use the books for enjoyment and to expand the children's knowledge of the world. In this study

the children whose mothers reported high support for literacy at home scored well in kindergarten on all three measures of early literacy (receptive vocabulary, narrative production, and emergent literacy).

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We interviewed the preschool teachers to discover how they typically organized their classroom day and to learn what they saw as their primary educational goals. We also observed the classroom environments to learn about the curriculum.

> We found differences in the pedagogical emphases of teachers. Some valued social and emotional development highly, others stressed academic growth, and some placed high values on both (Smith 2001). Our conversations revealed how the teachers allocated their classroom time. One of the striking things we found was the large variation in the amount of time teachers reported setting aside for book reading. When the children in our study were four vears old, somewhat more than 25 percent of the teachers reported planning for more than 51 minutes of book reading a week, whereas about 17 percent reported planning for reading 15 minutes or less per week.

When we looked at what teachers told us about their pedagogical beliefs and their ways of organizing time, we did not find much consistency between belief and practice. We also did not find much evidence that teachers' beliefs were related to children's growth. This set of findings suggests that many preschool teachers may lack well-articulated systems of belief that link understanding of the nature of language and literacy development with notions of effective classroom practices.

Other dimensions of the classroom environment did relate to children's later language and literacy development. One such dimension, the quality of the curriculum, was exemplified in Casey's classroom. For example, after the firefighters demonstrated their equipment to the class and introduced new words and concepts, the teacher extended that experience. We also found that children's later development was more positive if the classroom had a writing center and the teacher planned times for small-group activities.

Our measures of the classroom environment were far less potent predictors of children's later language and literacy than were our measures of teacher-child

to a cluster of questions to see how the home environment supported children's language and literacy development. Questions included

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interaction. Our data strongly indicate that it is the nature of the teacher-child relationship and the kinds of conversations that they have that makes the biggest difference to early language and literacy development.

The long-term benefits

We were interested in what effects different home and preschool environments, and various combinations of home and preschool environments, had on these children's kindergarten skills and on their more long-term academic achievements. To chart children's growth we individually assessed our children in kindergarten, using tasks that tapped language skills (receptive vocabulary, story understanding and production) and early literacy knowledge (letter knowledge, environmental print "reading," writing, phonemic awareness). Each year we continued to test children, and when they were in elementary school we began to use standardized reading tests.

How important was the home environment in comparison with the school environment—and vice versa? And how much could we predict about these children's later accomplishments based on what we knew about their abilities in kindergarten?

Let's start with the last question. What we found was that the scores that the kindergartners achieved on the measures (receptive vocabulary, narrative production, and emergent literacy) were highly predictive of their scores on reading comprehension and receptive vocabulary in fourth and in seventh grades. Apparently, the level of language and literacy skills that the children had acquired by the end of their kindergarten year provided a strong basis for the acquisition of literacy and vocabulary skills in their later elementary years. Although this is perhaps not entirely surprising, it does confirm that for this group of children early learning set the stage for later literacy acquisition in school.

If kindergarten skills are so important, we need to know the relative contributions of home and preschool to children's kindergarten skills. When we looked at each of the three kindergarten measures one at a time, we found that the significant predictors of narrative production were home environment variables, while home and preschool environment variables were both significant in explaining children's scores in receptive vocabulary and emergent literacy. For these reasons, it was extremely important that we had collected data on interactions and experiences from both the home and the classroom.

For Casey, who came from a supportive home and attended a preschool where language development was a main goal, the combined interactions and experiences provided him with strong scores in both understanding words and emergent literacy in kindergarten, in comparison with the other children in the study.

But not all of the children in the study came from environments as supportive as Casey's. What about them? What if a child from a home with lots of rich talk and exposure to books attends a preschool that does not support emergent literacy? Or what about the child who gets little support for language and literacy development at home, but attends a high-quality preschool with a wonderful language- and literacy-rich environment? Can either of these environments compensate for the other?

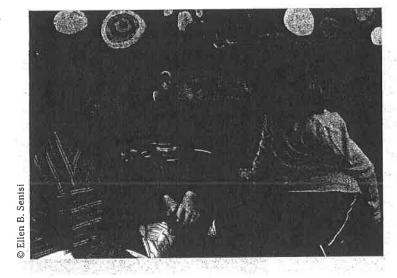


LANGUAGE

Using the data from the Home-School Study, we developed analyses to look at these hypothetical situations—the high-home/low-preschool language and literacy environment combination and the low-home/high-preschool language and literacy environment combination. Here's what we found. A child with a high-home/low-preschool combination would score below the mean for the sample on all three measures of kindergarten abilities. But a child with a low-home/high-preschool mix would score above the mean. The implication is that excellent preschools can compensate for homes that have well-below-average language and literacy support—at least as reflected in the children's kindergarten skills (Dickinson & Tabors 2001, 326).

Based on our results, we strongly believe that the early childhood period is key to getting children off to

a strong start in language and literacy. Our research suggests that policymakers' attention to literacy skills must include attention to building early foundations in rich oral language, both at home and in preschool. Everyday activities can develop varied vocabulary, engage children in complex uses of language that go beyond the



here and now, and surround children with environments that support language and literacy development. For this to happen, we must help all preschool teachers understand the major role they play in supporting children's long-term development. These teachers must deepen the know-how required to constantly extend children's oral language while they also encourage phonemic awareness and writing skills. Rather than adding an extra burden, this attention to language development is likely to create livelier, more enjoyable experiences for both teachers and children. Finally, teachers also must actively reach out to families, building on their strengths while guiding them toward the kinds of home language and literacy activities that will help their children achieve the educational success that families desire. With these early language experiences, children will be far more likely to acquire the specific reading and writing skills needed for school success.

References

Anderson, R.C., & P. Freebody. 1981. Vocabulary knowledge. In *Comprehension and teaching: Research reviews*, ed. J.T. Guthrie, 77–116. Newark, DE: International Reading Association.

Beals, D.E. 2001. Eating and reading: Links between family conversations with preschoolers and later language and literacy. In Beginning literacy with language: Young children learning at home and school, eds. D.K. Dickinson & P.O. Tabors, 75–92. Baltimore: Brookes.

Cote, L.R. 2001. Language opportunities during mealtimes in preschool classrooms. In *Beginning literacy with language: Young children learning at home and school*, eds. D.K. Dickinson & P.O. Tabors, 205–21. Baltimore: Brookes.

Cunningham, A.E., & K.E. Stanovich. 1997. Early reading acquisition and its relation to reading experience and ability 10 years later. *Developmental Psychology* 33 (6): 934–45.

De Temple, J.M. 2001. Parents and children reading books together. In *Beginning literacy with language: Young children learning at home and school*, eds. D.K. Dickinson & P.O. Tabors, 31–51. Baltimore: Brookes.

Dickinson, D.K. 2001a. Book reading in preschool classrooms: Is

recommended practice common? In Beginning literacy with language: Young children learning at home and school, eds. D.K. Dickinson & P.O. Tabors, 175–203. Baltimore: Brookes.

Dickinson, D.K. 2001b. Largegroup and free-play times: Conversational settings supporting language and literacy development. In Beginning literacy with language: Young children learning at home and school, eds. D.K. Dickinson & P.O. Tabors, 223–55. Baltimore: Brookes.

Dickinson, D.K., & P.O. Tabors, eds. 2001. Beginning literacy with language: Young children learning at home and school. Baltimore: Brookes.

Katz, J.R. 2001. Playing at

home: The talk of pretend play. In *Beginning literacy with language: Young children learning at home and school*, eds. D.K. Dickinson & P.O. Tabors, 53–73. Baltimore: Brookes.

Neuman, S.B. 2001. Essay Book Review: The role of knowledge in early literacy. *Reading Research Quarterly* 36 (4): 468–75.

Roach, K.A., & C.E. Snow. 2000. What predicts fourth grade reading comprehension? Paper presented at the annual conference of the American Education Research Association, New Orleans, April.

Smith, M.W. 2001. Children's experiences in preschool. In Beginning literacy with language: Young children learning at home and school, eds. D.K. Dickinson & P.O. Tabors, 149–74. Baltimore: Brookes.

Snow, C.E., & D.K. Dickinson. 1991. Skills that aren't basic in a new conception of literacy. In *Literate systems and individual lives:*Perspectives on literacy and schooling, eds. A. Purves & E. Jennings. Albany: State University of New York (SUNY) Press.

Snow, C.E., W.S. Barnes, J. Chandler, I.F. Goodman, & L. Hemphill. 1991. Unfulfilled expectations: Home and school influences on literacy. Cambridge, MA: Harvard University Press.

Tabors, P.O., D.E. Beals, & Z.O. Weizman. 2001. "You know what oxygen is?" Learning new words at home. In *Beginning literacy with language: Young children learning at home and school,* eds. D.K. Dickinson & P.O. Tabors, 93–110. Baltimore: Brookes. Whitehurst, G.J., & C.J. Lonigan. 1998. Child development and

emergent literacy. Child Development 68: 848–72.