



Language and Literacy Environments in Preschools

Catherine E. Snow, M. Susan Burns, and Peg Griffin

Children live in homes that support literacy development to differing degrees. Because of this variation in the home environment, many children need high-quality preschool and school environments and excellent primary instruction to be sure of reading success. This Digest discusses the research on preschool literacy environments and their contributions to reading skills development. This research has important implications for those who are making instructional, programmatic, or policy decisions that may affect children's preschool literacy environments.

Program Quality of Preschools

The overall quality of a child care program has been found to be an important determinant of positive effects on language and preliteracy skills (see Barnett et al., 1988, for a review). The evaluation of public preschool programs in North Carolina found evidence that participation in the programs reduced the degree of delay of high-risk children in communicative skills (Bryant et al., 1993). Assessments of several early childhood programs (Roberts et al., 1989; Wasik et al., 1990; Infant Health and Development Program, 1990; Brooks-Gunn et al., 1994; St. Pierre & Lopez, 1994; St. Pierre et al., 1993) have documented the enhanced value of high-quality classroom-based experiences for children in poverty, with bigger effects from more intensive and higher quality programs, as well as evidence for positive effects on language development in particular.

Studies of Language Environments in Preschools

Most studies of preschools using broad-gauge tools that include language and literacy as only one small portion of the assessment have found that it is precisely on measures of the language environment that many preschool programs serving poor children have scored in the inadequate range. A study of children in North Carolina public preschools found that they had lower ratings on language and reasoning measures than on other aspects of the Early Childhood Environmental Rating Scale (Bryant et al., 1993). Scores were particularly low for items involving dramatic play (an important context for rich language use), cultural awareness, and professional opportunities, suggesting that the children's language development needs were not being served optimally. A study of 32 Head Start classrooms similarly found the lowest scores for language and reasoning on the same test (Bryant et al., 1993).

Other studies have also focused on the language environments in preschool classrooms (Phillips et al., 1987; Dickinson & Smith, 1994; Dickinson et al., 1993). These studies suggest that the quality of adult-child discourse is important, as is the amount of such interaction. One study found that

the amount of cognitively challenging talk that children experience is correlated with the amount of time they talk with adults (Smith & Dickinson, 1994). Given the importance of adult-child interaction, it is disturbing that some children may rarely interact with a preschool teacher, receiving little or no individualized attention (Kontos & Wilcox-Herzog, 1997). Modest enhancements of the quality of classroom experiences show positive effects on children's language development and preliteracy skills (Whitehurst et al., 1994).

Finally, Neuman (1996) studied the literacy environment in child care programs. Day care providers were targeted because of their role in providing care for infants, toddlers, and preschoolers; in many situations, the language and literacy needs of these children are not the caretakers' primary concern. Traditional caretaking tasks, such as keeping children safe, fed, and clean, are often the main focus. Yet many of these children are in special need of early language stimulation and literacy learning.

Intervention Results

In one program, caretakers were given access to books and training on techniques for (1) book selection for children of different ages, (2) reading aloud, and (3) extending the impact of books. The program was evaluated with a random sample of 400 3- and 4-year-olds who received the intervention, as well as 100 children in a comparison group. Results showed that literacy interaction increased in the intervention classrooms; literacy interactions averaged five per hour before the intervention and doubled after the intervention. Before the intervention, classrooms had few book centers for children; after the intervention, 93% of the classrooms had such centers. Children with caretakers who received the intervention performed significantly better on concepts of print (Clay, 1979), narrative competence (Purcell-Gates & Dahl, 1991), concepts of writing (Purcell-Gates, 1996), and letter names (Clay, 1979) than did children in the comparison group. At follow-up in kindergarten, the children were examined on concepts of print (Clay, 1979), receptive vocabulary (Dunn & Dunn, 1981), concepts of writing (Purcell-Gates, 1996), letter names (Clay, 1979), and two phonemic awareness measures based on children's rhyming and alliteration capacity (Maclean et al., 1987). On these measures, children in the reading-aloud group performed significantly better on letter names, phonemic awareness, and concepts of writing.

Beyond Language and Literacy

Given the pervasive evidence of differences in language and emergent literacy skills associated with class, culture, and linguistic background, it is heartening that preschool has

been shown to benefit children's performance in school (Haskins, 1989). The number of months that children spend in preschool has been found to be related to achievement test scores in second grade, behavior problems in third grade, and school retention in kindergarten through third grade (Pianta & McCoy, 1997). A recent comprehensive review of early childhood programs for children from low-income families concludes that preschool programs can produce large effects on IQ during the early childhood years and sizable persistent effects on achievement, grade retention, special education, high school graduation, and socialization (Barnett, 1995).

Implications for Preschool Educators

Prevention of later reading difficulties involves ensuring that families and group care settings for young children offer experiences and support that make language and literacy accomplishments possible. Parents and caregivers can:

- spend time in one-on-one conversation with young children;
- read books with children;
- provide writing materials;
- support dramatic play that incorporates literacy activities;
- demonstrate the uses of literacy; and
- maintain a joyful, playful atmosphere around literacy activities.

For most children, these simple primary prevention efforts will ensure that they are ready for formal reading instruction.

Adapted from Snow, Catherine E., Burns, M. Susan, & Griffin, Peg (Eds.). (1998). Preventing reading difficulties in young children. Washington, DC: National Research Council. (Available: <http://www.nap.edu/readingroom/books/prdyc/ch5.html>).

For More Information

Barnett, W. S. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *Future of Children*, 5(3), 25-50. EJ 523 962.

Barnett, W. S., Frede, E. C., Mobasher, H., & Mohr, P. (1988). The efficacy of public preschool programs and the relationship of program quality to efficacy. *Educational Evaluation and Policy Analysis*, 10(1), 37-49. EJ 381 174.

Brooks-Gunn, J., McCornick, M. C., Shapiro, S., Benasich, A. A., & Black, G. W. (1994). The effects of early education intervention on maternal employment, public assistance, and health insurance: The infant health and development program. *American Journal of Public Health*, 84(6), 924-930.

Bryant, D. M., Peisner-Feinberg, E., & Clifford, R. (1993). *Evaluation of public preschool programs in North Carolina*. Chapel Hill: Frank Porter Graham Center, University of North Carolina. ED 373 882.

Clay, M. M. (1979). *The early detection of reading difficulties* (2nd ed.). Auckland, NZ: Heinemann. ED 263 529.

Dickinson, D. K., Cote, L., & Smith, M. W. (1993). Learning vocabulary in preschool: Social and discourse contexts affecting vocabulary growth. In C. Daiute (Ed.), *The development of literacy through social interaction. New directions for child development, No. 61* (pp. 67-78). San Francisco, CA: Jossey-Bass.

Dickinson, D. K., & Smith, M. W. (1994). Long-term effects of preschool teachers' book readings on low-income children's vocabulary and story comprehension. *Reading Research Quarterly*, 29(2), 104-122. EJ 487 825.

Dunn, L. M., & Dunn, L. M. (1981). *Peabody picture vocabulary test, revised*. Circle Pines, MN: American Guidance Service.

Haskins, R. (1989). Beyond metaphor: The efficacy of early childhood education. *American Psychologist*, 44(2), 274-282. EJ 393 130.

Infant Health and Development Program. (1990). Enhancing the outcomes of low-birth-weight premature infants. *Journal of the American Medical Association*, 263(22), 3035-3042.

Kontos, S., & Wilcox-Herzog, A. (1997). Teachers' interactions with children: Why are they so important? *Young Children*, 52(2), 4-12. EJ 538 100.

Maclean, M., Bryant, P., & Bradley, L. (1987). Rhymes, nursery rhymes, and reading in early childhood. *Merrill-Palmer Quarterly*, 33(3), 255-281. EJ 361 475.

Neuman, S. B. (1996). *Evaluation of the Books Aloud Project: An executive summary*. Report to the William Penn Foundation from BooksAloud! Philadelphia, PA: Temple University.

Phillips, D. A., McCartney, K., & Scarr, S. (1987). Child-care quality and children's social development. *Developmental Psychology*, 23(4), 537-543. EJ 361 532.

Pianta, R. C., & McCoy, S. J. (1997). The first day of school: The predictive validity of early school screening. *Journal of Applied Developmental Psychology*, 18(1), 1-22.

Purcell-Gates, V. (1996). Stories, coupons, and the "TV Guide": Relationships between home literacy experiences and emergent literacy knowledge. *Reading Research Quarterly*, 31(4), 406-428. EJ 532 191.

Purcell-Gates, V., & Dahl, K. L. (1991). Low-SES children's success and failure at early literacy learning in skills-based classrooms. *Journal of Reading Behavior*, 23(1), 1-34. EJ 437 304.

Roberts, J., Rabinowitz, S., Bryant, D. M., Burchinal, M., Koch, M., & Ramey, C. T. (1989). Language skills of children with different preschool experiences. *Journal of Speech and Hearing Research*, 32(4), 773-786. EJ 405 212.

Smith, M. W., & Dickinson, D. K. (1994). Describing oral language opportunities and environments in Head Start and other preschool classrooms. *Early Childhood Research Quarterly* [Special Issue on Head Start], 9(3-4), 345-366. EJ 495 305.

St. Pierre, R., & Lopez, M. (1994, December 16). *The comprehensive child development program*. Presentation to the National Research Council, Board on Children and Families, Washington, DC.

St. Pierre, R., Swartz, J., Murray, S., Deck, D., & Nicke, P. (1993). *National evaluation of the Even Start family literacy program: Report on effectiveness*. Washington, DC: U.S. Department of Education, Office of Policy and Planning. ED 365 476.

Wasik, B. H., Ramey, C. T., Bryant, D. M., & Sparling, J. J. (1990). A longitudinal study of two early intervention strategies: Project CARE. *Child Development*, 61(6), 1682-1696. EJ 426 160.

Whitehurst, G. J., Arnold, D. S., Epstein, J. N., & Angell, A. L. (1994). A picture book reading intervention in day care and home for children from low-income families. *Developmental Psychology*, 30(5), 679-689. EJ 493 520.

References identified with an ED (ERIC document), EJ (ERIC journal), or PS number are cited in the ERIC database. Most documents are available in ERIC microfiche collections at more than 1,000 locations worldwide and can be ordered through EDRS: (800) 443-ERIC. Journal articles are available from the original journal, interlibrary loan services, or article reproduction clearinghouses such as: UnCover (800) 787-7979 or ISI (800) 523-1850.

This publication was funded by the Office of Educational Research and Improvement, U.S. Department of Education, under contract no. ED 99-CO-0020. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI. ERIC Digests are in the public domain and may be freely reproduced.