

# Language and Literacy Promotion in Early Childhood Settings: A Survey of Center-Based Practices

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## Abstract

The early childhood years serve as an essential foundation for subsequent literacy development. Despite the increased attention given to children's early literacy development, gaps remain in our understanding of what is actually taking place in child care programs across the nation. The purpose of this study was twofold: (1) to assess the extent to which early childhood educators engage children in literacy-building activities, and (2) to identify educator or programmatic characteristics associated with the promotion of early literacy activities in child care centers. One hundred and eighty surveys were completed by early childhood educators attending regional training events. Findings demonstrate that efforts are being made in a number of areas to engage children in a variety of important language and literacy activities in their centers; however, a sizable minority of those surveyed indicated that they do not frequently engage children in recommended activities. Multiple regression analysis suggests that certain characteristics related to the educator and program itself appear to have a positive influence on how often educators promote language and literacy activities in their centers: availability of print materials, the educator's confidence in the training received in basic literacy skills instruction, and the number of children cared for in a particular program. Implications for practitioners are discussed.

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## Introduction

Learning to read and write at a high level of proficiency is a lifelong process; however, it is well established that the early childhood years serve as an important foundation for subsequent literacy development (Neuman & Dickinson, 2001; Snow, Burns, & Griffin, 1998; Whitehurst & Lonigan, 2001). The degree to which children acquire requisite literacy skills is known to be a strong predictor of future academic success and has long-term social and economic implications for families and societies (Snow, Burns, & Griffin, 1998; Werner & Smith, 1992). In a joint position statement issued by the International Reading Association (IRA) and the National Association for the Education of Young Children (NAEYC), the authors state, "One of the best predictors of whether a child will function competently in school and go on to contribute actively in our increasingly literate society is the level to which the child progresses in reading and writing" (IRA/NAEYC, 1998, p. 30).

Reading aloud to children on a frequent basis is one of the most effective ways to promote early literacy development among young children (Bus, van Ijzendoorn, & Pellegrini, 1995; Halle, Calkins, Berry, & Johnson, 2003; IRA/NAEYC, 1998), yet only 58% of children ages 3 to 5 are read to daily by a family member (Forum on Child and Family Statistics, 2004). The discrepancies between those who are exposed to daily book reading by a family member and those who are not are even more pronounced for minority children as well as for those living in poverty. Surveys indicate that 47% of Black, non-Hispanic children and 42% of Hispanic children were read to daily in 2001 compared with 64% of White, non-Hispanic children. Children living below the poverty line were also significantly less likely to have been read to daily by a family member than children living at or above the poverty threshold (46% versus 60%) (Forum on Child and Family Statistics, 2004).

The importance of early literacy promotion in the home environment is well established (Bennett, Weigel, & Martin, 2002; Bus, van Ijzendoorn, & Pellegrini, 1995; Sénéchal & LeFevre, 2002); however, a growing number of children are spending large portions of their time in contexts outside of the family. It is estimated that 52% of children ages birth to 2, and 74% of

children ages 3 to 6 (not yet in kindergarten) spend time in nonparental care arrangements. Approximately 17% of children birth to age 2, and 56% of children ages 3 to 6 (not yet in kindergarten) are enrolled in center-based early childhood programs such as Head Start, day care centers, nursery schools, and various other preschool programs (Forum on Child and Family Statistics, 2004).

## **Purpose of Study**

Given the fact that children are spending so much time in nonparental care arrangements, it is important to consider the role that early childhood programs can play in promoting children's early literacy development (Dickinson & Sprague, 2001; Halle, Calkins, Berry, & Johnson, 2003). The purpose of the present investigation is twofold: (1) to examine what efforts are being made by early childhood educators<sup>1</sup> to promote the early literacy skills of children enrolled in center-based settings, and (2) to explore what factors are significantly associated with increased literacy and language promotion in such programs.

## **The Role of Early Childhood Programs in Promoting Children's Emergent Literacy Skills**

For decades, many researchers, educators, and parents operated under the assumption that learning to read and write were processes that began with formal school-based instruction in kindergarten or first grade (Neuman & Dickinson, 2001; Whitehurst & Lonigan, 1998). Today, however, there is broad consensus among researchers that the developmental precursors of formal reading and writing (i.e., emergent literacy) emerge during the preschool years. Unfortunately, millions of children grow up in home environments that fail to provide the support needed to foster children's early literacy development (Barnett, 2001). Children who do not receive adequate support from parents and other adults in the home environment must depend on outside sources such as early childhood programs to fill the gap.

Numerous short- and long-term studies examining children's developmental progress while attending early childhood programs indicate that preschool education in a variety of forms can, in fact, play a significant role in helping children develop essential language and literacy skills (see Barnett, 2001; Dickinson & Sprague, 2001; Halle, Calkins, Berry, & Johnson, 2003). However, the impact of such programs appears to be influenced by a variety of factors including the quality of the child care environment, teacher training/effectiveness, socioeconomic status of the child/family, level of parental involvement, amount of time spent each day/week in the program, and overall length of enrollment in the program (Barnett, 2001; Burchinal, Roberts, Riggins, Zeisel, Neebe, & Bryant, 2000; Dickinson & Sprague, 2001; Halle, Calkins, Berry, & Johnson, 2003).

## **Research-Based Strategies for Promoting Children's Emergent Literacy Skills**

In recent years, several efforts have been undertaken to synthesize important research on children's emergent literacy development with the goal of providing educators and parents with research-based instructional strategies for enhancing children's literacy experiences during their preschool years. Two of the most comprehensive syntheses were released in 1998 and include the National Research Council's *Preventing Reading Difficulties in Young Children* (Snow, Burns, & Griffin, 1998) and the joint position statement of the IRA and the NAEYC on early literacy (IRA/NAEYC, 1998). In both of the above syntheses, the authors recommend that educators employ a range of strategies to facilitate children's early literacy development.

Strategies that have been shown to be effective at promoting children's early literacy development include reading aloud to children in an interactive style (Bus, van Ijzendoorn, &

Pellegrini, 1995; Dickinson & Smith, 1994; Hargrave & Sénéchal, 2000); fostering children's understanding of print concepts (IRA/NAEYC, 1998; Teale, 1984; Stanovich & West, 1989); arranging the classroom environment so that children have an opportunity to interact with books and other print materials (Morrow & Weinstein, 1986; Neuman & Roskos, 1997); providing opportunities for children to experiment with writing (Richgels, 2001; Whitehurst & Lonigan, 1998); familiarizing children with letters of the alphabet and their corresponding sounds (Adams, 1990; IRA/NAEYC, 1998); and involving children in activities that promote children's phonological skill development (Snow, Burns, & Griffin, 1998).

While all of the above strategies have been shown to be effective, many experts contend that the single most important teaching strategy for promoting children's early literacy development across multiple domains (e.g., vocabulary growth, print awareness) is reading aloud to children in an interactive style that engages them as active learners (Bus, van Ijzendoorn, & Pellegrini, 1995; Halle, Calkins, Berry, & Johnson, 2003; Hargrave & Sénéchal, 2000; IRA/NAEYC, 1998; Whitehurst, Arnold, Epstein, Angell, Smith, & Fischel, 1994; Whitehurst & Lonigan, 2001). When children are encouraged to become active participants rather than passive listeners, they are more likely to experience improvements in their vocabularies and comprehension abilities (Hargrave & Sénéchal, 2000; Karweit & Wasik, 1996; Whitehurst, Arnold, Epstein, Angell, Smith, & Fischel, 1994).

## **Research Questions**

Numerous studies have examined the efficacy of comprehensive early childhood interventions, which often include a strong literacy component (Liaw, Meisels, & Brooks-Gunn, 1995; Love et al., 2002; Ramey & Campbell, 1984; Reynolds, 1994; Weikart, Bond, & McNeil, 1978). Results demonstrate that comprehensive interventions can lead to positive short- and long-term outcomes for children. In addition, ongoing efforts indicate that early childhood educators can be trained to become effective at promoting research-based language and literacy practices in their centers (e.g., Landry, 2001).

Despite the increased attention given to the importance of promoting early literacy development in early childhood programs, gaps remain in our understanding of what is actually taking place in early childhood programs across the nation. While millions of children are enrolled in federally funded programs such as Head Start, millions of children also attend other center- and home-based child care programs where little is known about what is taking place with regard to early literacy promotion. More studies are needed to determine what early childhood educators are currently doing to develop the early literacy skills of the children in these environments. The present study, which was guided by the following research questions, is an attempt to contribute to our understanding of current practices in center-based settings:

1. To what extent do early childhood educators engage children in language and literacy activities in their centers?
2. What educator or programmatic characteristics are significantly associated with the promotion of language and literacy activities in early childhood centers?

## **Method**

### **Sample and Procedure**

The sample for this study was drawn from a series of early childhood educator regional training sessions conducted between April and July of 2004 in a large southern state. Training sessions were conducted in three separate regions. The events included a general session and multiple breakout sessions, which allowed participants to rotate through various topics. The training

sessions concentrated on general themes important to early childhood educators (e.g., child development, discipline, nutrition, licensing standards) and were open to educators from a variety of public and private early childhood programs. Prior to training sessions, paper-and-pencil surveys were distributed in person to participants. Attendees were informed that the survey was strictly voluntary and confidential.

One hundred and eighty center-based early childhood educators completed surveys. Sample characteristics can be found in Table 1. As noted in the table, the vast majority of educators were female (93.9%). The mean age of participants was 35.3, while the average length of time working in the profession was 6.7 years. Hispanic/Latino educators made up the majority of the sample (66.7%), followed by Caucasians (26.1%), African Americans (3.9%), and other (2.2%). Nearly 95% of respondents reported having obtained a high school diploma or greater, 16.7% reported having obtained an associate's degree, and just over 7% reported having obtained an undergraduate or graduate degree. The majority of early childhood educators in this sample worked in public or private community-based child care centers other than Head Start (61.7%), while 18.9% worked in Head Start and 18.3% in church affiliated/faith-based programs. Over 95% of centers represented in the sample were licensed or registered facilities.

**Table 1**  
Sample Characteristics (*N* = 180)

<b>Variable*</b>	<b>Percentage</b>	<b>Mean</b>
Age		35.3 years
Years of Experience in Profession		6.7 years
<b>Gender<sup>1</sup></b>		
Female	93.9%	
Male	1.7%	
<b>Ethnicity<sup>2</sup></b>		
African American	3.9%	
Caucasian	26.1%	
Hispanic/Latino	66.7%	
Other	2.2%	
<b>Education Level<sup>3</sup></b>		
< High School Diploma	1.7%	
High School Diploma	70.6%	
Associate's Degree	16.7%	
Bachelor's Degree	6.1%	
Graduate Degree	1.1%	
<b>Income<sup>4</sup></b>		
Under \$20,000	33.3%	
\$20,000-29,000	22.2%	
\$30,000-39,000	10.6%	
\$40,000 and above	25.5%	
<b>Program Type<sup>5</sup></b>		
Center (other than Head Start)	61.7%	
Head Start	18.9%	

Church Affiliated/Faith Based	18.3%	
<b>Licensed and/or Registered Facility<sup>6</sup></b>		
Yes	95.6%	
No	2.2%	

\*Note: <sup>1</sup>Missing cases = 8; <sup>2</sup>Missing cases = 2; <sup>3</sup>Missing cases = 7; <sup>4</sup>Missing cases = 15; <sup>5</sup>Missing cases = 2; <sup>6</sup>Missing cases = 4.

## **Instrumentation/Measurement**

### **Language and Literacy Activities**

To measure the degree to which early childhood educators promote language and literacy activities in their centers, a 23-item survey (excluding demographic items) was developed. The survey began with the following question: "In my early childhood program, we..." Participants were then instructed to respond to a series of statements indicating how often they engage children in specific activities (see the [Appendix](#) for survey items). Response options for each of the 23 items ranged from 1 (Never) to 5 (Always).

Items focused on specific educational strategies associated with the promotion of children's emergent literacy skills including (1) current caregiver-child reading practices, (2) instruction about books, (3) exposure to books, (4) word and letter recognition, and (5) promotion of phonological awareness. When combined to form a single measure of language and literacy promotion, the 23-item scale showed excellent internal reliability (alpha reliability = .94).

### **Early Childhood Educator Characteristics**

*Demographic Variables.* The following demographic variables were collected from participants: age, gender, education level, race/ethnicity, household income, and number of years in the profession. Open-ended questions were used to assess age and years of experience in the child care profession. For education level, race/ethnicity, and income, participants were instructed to circle the most applicable response from a finite set of choices. *Experience Teaching Basic Literacy Skills.* Two global items were developed to measure early childhood educators' experiences with teaching basic literacy skills. The first item asked, "Have you received training on how to teach children to read?" The second item asked, "Do you feel you have received adequate training in how to teach children basic literacy skills (examples: how to read, recognize letters of the alphabet)?" Participants were given the choice of responding "Yes" or "No" to both items.

### **Program Characteristics**

*Type and Status of Child Care Center.* Early childhood educators were asked to identify the type of program they worked for and to indicate whether or not they worked for a licensed or registered facility.

*Availability of Print Materials.* The availability of print materials was measured using a global item that asked participants to respond to the following statement: "In my early childhood program, we have a wide selection of children's books and other print materials available at our facility." Response categories ranged from 1 (Never) to 5 (Always).

*Number of Children in Classroom.* The number of children in a classroom was measured by asking participants to fill in a numerical value corresponding to the number of children they (as individual educators) care for in their centers.

## Results

### Language and Literacy Activities in Center-Based Early Childhood Settings

The first research question asked, "To what extent do early childhood educators engage children in language and literacy activities in their centers?" In order to answer this question, frequencies were run on participants' responses to the individual items included in the 23-item survey. Response categories ranged from 1 to 5; however, the response percentages on several of the items fell under 1%. Therefore, response categories were collapsed into the following three categories: (1) always or often, (2) sometimes, and (3) seldom or never. Results indicate that early childhood educators are making concerted efforts in a variety of areas to involve children in language and literacy activities. Mean scores generated from the 23-item scale, along with the standard deviations and percentages for subscale items, can be found in Table 2.

**Table 2**  
Language and Literacy Activities in Center-Based Early Childhood Settings ( $N = 180$ )

Variable	% Reporting Often or Always	% Reporting Sometimes	% Reporting Seldom or Never	<i>M</i>	<i>SD</i>
Language and Literacy Promotion Scale (23-items)	-	-	-	4.17	0.64
1. Read aloud to children in a group setting.	78.3	16.7	5.0	4.24	0.90
2. Read aloud to children individually.	50.0	30.6	19.4	3.44	1.07
3. Set aside special time each day to read to children.	75.0	19.4	5.6	4.13	0.97
4. Read aloud a variety of books.	85.6	9.4	5.0	4.34	0.87
5. Reread favorite books.	82.8	12.8	4.4	4.28	0.90
6. Talk about books read together.	68.9	20.6	10.6	3.95	1.11
7. Ask children questions about the books.	74.4	17.8	7.8	4.10	1.06
8. Provide opportunities for children to look at books and other printed materials on own.	82.2	13.3	4.4	4.31	0.90
9. Teach children features of a book.	58.3	21.1	20.6	3.65	1.25
10. Teach children that printed letters and words run from left to right and from top to bottom.	63.3	19.4	17.2	3.74	1.21
11. Practice saying alphabet with the children.	93.3	5.0	1.7	4.60	0.68
12. Teach children to recognize letters of alphabet.	90.0	7.8	2.2	4.54	0.80
13. Teach children to distinguish between uppercase and lowercase letters.	69.4	20.6	10.0	3.98	1.19
14. Help children learn the sounds each letter can represent.	78.9	12.2	8.9	4.23	1.09
15. Teach children to write letters of alphabet.	71.7	17.2	11.1	4.05	1.15
16. Help children to write their names.	74.4	16.1	9.4	4.10	1.13
17. Help children identify different colors, shapes, and sizes.	88.3	8.3	3.3	4.57	0.80
18. Help children learn opposites.	81.1	16.1	2.8	4.29	0.89

19. Help children recognize numbers.	87.2	8.9	3.9	4.46	0.83
20. Practice counting with the children.	88.9	9.4	1.7	4.57	0.75
21. Choose books to read aloud that focus on sounds, rhyming, and alliteration.	77.2	16.7	6.1	4.16	0.93
22. Have children sing or say a familiar nursery rhyme or song.	85.6	12.8	1.7	4.42	0.78
23. Encourage children to make up new verses of familiar songs or rhymes by changing beginning sounds or words.	63.9	20.6	15.6	3.85	1.17

The first five questions on the survey assessed participants' reading practices with the children in their centers. Survey results indicate that reading aloud to children in a group setting is the primary way that early childhood educators engage children in shared book reading. Over 78% of respondents reported that they often or always read aloud to children in a group setting compared with only 50% who reported that they often or always read aloud to children on an individual basis. Three-fourths (75%) of those surveyed indicated that they often or always set aside a special time each day to read to children, while the vast majority (85.6%) often or always make a special effort to read aloud a variety of different books and reread favorite books (82.8%).

Questionnaire items 6 and 7 asked participants to indicate the degree to which they talk about books that they have read together and ask children questions about the books as they read. Nearly 70% (68.9%) of those surveyed responded that they do in fact talk about books they have read together, while nearly three-fourths (74.4%) noted that they ask children questions during or after book reading. When asked how often they provide opportunities for children to look at books and other print materials on their own, a clear majority (82.2%) indicated that they provide such opportunities often or always, while just over 17% reported that they sometimes (13.3%) or seldom or never (4.4%) do so. A much smaller majority of respondents indicated that they make a concerted effort to teach children various features of a book (58.3%—often or always) and that printed letters and words run from left to right and from top to bottom (63.3%—often or always).

The next series of items (11-16) asked respondents to indicate how often they work with children to recognize the letters of the alphabet, their corresponding sounds, and how to write the letters. Over 93% of those surveyed reported that they often or always practice saying the alphabet with children in their centers; whereas only 6.7% indicated that they do so sometimes (5%) or seldom or never (1.7%). Ninety percent of respondents noted that they often or always make an effort to teach children to recognize letters of the alphabet. Only 10% reported doing otherwise (7.8%—sometimes; 2.2%—seldom or never).

The percentages drop significantly when asked how often they help children learn to distinguish between uppercase and lowercase letters, learn the sounds associated with each letter, and assist children in learning how to write letters of the alphabet, including the children's names. Approximately 70% (69.4%) indicated that they often or always teach children to distinguish between uppercase and lowercase letters, while roughly 30% (30.6%) noted that they do so sometimes (20.6%) or seldom or never (10%). Concerning the teaching of the sounds associated with letters of the alphabet, 78.9% indicated that they do so often or always, while 21.1% do so less frequently (12.2%—sometimes; 8.9%—seldom or never). A smaller percentage of early childhood educators indicated that they teach children to write letters of the alphabet (71.7%—often or always; 17.2%—sometimes; 11.1%—seldom or never) and their names (74.4%—often or always; 16.1%—sometimes; 9.4%—seldom or never).

Questionnaire items 17 through 20 asked respondents to indicate how often they assist children in identifying or learning various shapes, sizes, colors, opposites, and numbers, as well as how often they practice basic counting skills. Nearly 90% of survey respondents reported that they

often or always help children identify different colors, shapes, and sizes; whereas only 11.6% reported doing so on a less frequent basis. Over 80% of early childhood educators often or always help children learn opposites (81.1%), recognize numbers (87.2%), and practice counting with the children enrolled in their centers (88.9%).

The final three items on the survey assessed educators' efforts to assist children in developing phonological awareness (i.e., the ability to identify and manipulate sounds in language). Nearly 80% (77.2%) indicated that they often or always select books to read aloud that focus on sounds, rhyming, and alliteration, while over 20% do so less frequently (16.7%—sometimes; 6.1%—seldom or never). Approximately 85% (85.6%) reported that children are often or always encouraged to say or sing familiar nursery rhymes or songs. Fewer respondents reported that they often or always encourage children to make up new verses or rhymes by changing the beginning sounds or words (63.9%).

### **Educator and Program Characteristics Associated with Language and Literacy Promotion in Early Childhood Centers**

The second research question asked, "What are the educator or programmatic characteristics that are significantly associated with the promotion of language and literacy activities in early childhood centers?" To arrive at an answer to this question, seven independent variables were entered into a multiple regression equation, including the early childhood educator's race/ethnicity, education level, years of experience in the profession, literacy training received, and perceptions of literacy training adequacy. The two remaining variables entered into the regression equation included number of children cared for by the educator and the availability of print materials at the center. Early childhood educator efforts to promote language and literacy activities in their centers served as the dependent variable.

The racial/ethnic makeup of the sample was divided predominately into two groups, with Hispanics and Caucasians making up nearly 93% (Hispanics = 66.7%; Caucasians = 26.1%); therefore, a dummy variable was created for "race/ethnicity" in which Hispanics were coded as "1" and all other groups were coded as "0."

In a small number of cases, respondents failed to respond to all items on the survey; therefore, missing values were replaced by the mean for those particular items. Results from the multiple regression analysis, including standard error coefficients, unstandardized and standardized beta coefficients, and significance levels, can be found in Table 3. Forty-five percent ( $R^2 = .45$ ) of the variation in the dependent variable (early childhood educator efforts to promote language and literacy activities) was explained by the independent variables under consideration,  $F(7, 172) = 19.91, p < .001$ .

**Table 3**  
Results from Multiple Regression Analysis ( $N = 180$ )

<b>Variable</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>
Availability of Print Materials at Center	.40	.05	.52**
Education Level of Educator	.09	.06	.09
Number of Children Cared for by Educator	.01	.01	.17*
Perceived Adequacy of Training Received	.56	.10	.36**
Race/Ethnicity of Educator	.09	.08	.07
Training Received in How to Teach Reading	-.08	.09	-.06
Years of Experience in Profession	.01	.01	.10

Note: SE = standard error. \* $p < .01$ . \*\* $p < .001$ .



The following variables were found to significantly influence early childhood educators' efforts to promote language and literacy activities in their centers: availability of children's books and other print materials at the center ( $\beta = .52, p < .001$ ); perceived adequacy of basic literacy skills training (i.e., confidence that the educator has received adequate training related to teaching children basic literacy skills) ( $\beta = .36, p < .001$ ); and the number of children cared for by the early childhood educator ( $\beta = .17, p < .01$ ).

## Discussion

Early childhood educators in this sample appear to be making concerted efforts to engage children in a variety of important language and literacy activities in their centers. The majority of respondents indicated that they make frequent attempts to read aloud to children in a group setting. Two-thirds of those surveyed set aside a special time each day to read with the children in their care, and it appears from their responses that these reading experiences are accompanied by attempts to actively involve children in the process. A clear majority of educators not only talk about books they have read together (68.9%), but also ask children questions during and after reading times (74.4%). As noted earlier, these strategies are consistent with researchers' recommendations for strengthening the language and literacy skills of preschool-age children (Hargrave & Sénéchal, 2000; IRA/NAEYC, 1998; Whitehurst, Arnold, Epstein, Angell, Smith, & Fischel, 1994).

An examination of early childhood educators' practices also revealed that they provide frequent opportunities for children to interact with books and other print materials on their own, which can lead to greater print awareness (Morrow & Weinstein, 1986; Neuman & Roskos, 1997). Over 80% of respondents reported that they often or always provide children opportunities for self-directed interaction with print materials. In a related manner, the majority of those surveyed also indicated that they make frequent attempts to teach children various features of books, including the fact that printed letters and words run from left to right and from top to bottom on a page (63.3%).

Another recommended strategy that these early childhood educators appear to be focusing great attention on in their centers is the alphabetic principle (i.e., understanding that there is a relationship between letters and sounds) (Adams, 1990). Ninety percent of respondents indicated that they teach children to recognize letters of the alphabet, while over 90% (93.3%) often or always practice saying the alphabet with the children. A sizable majority (78.9%) of respondents also make frequent attempts to teach children the sounds that are associated with the letters of the alphabet.

Nearly two-thirds of those surveyed make frequent efforts to engage children in writing exercises, which can facilitate subsequent literacy development (Richgels, 2001; Whitehurst & Lonigan, 1998). A clear majority of respondents work with children to help them identify various shapes, colors, sizes, numbers, and opposites. It is unknown, however, how early childhood educators go about teaching these concepts.

The final three items on the survey addressed activities that promote phonemic awareness, an important predictor of later reading success (IRA/NAEYC, 1998; Snow, Burns, & Griffin, 1998). Educators reported that they frequently choose books to read aloud that focus on sounds, rhyming, and alliteration; have children sing or say familiar nursery rhymes; and encourage children to make up new verses of songs or rhymes.

While the above results appear to be very positive in terms of educator efforts to promote the early literacy skills of children in center-based care, a sizable minority of educators in this sample indicated that they do not frequently engage children in recommended literacy-based activities. Over 20% of respondents reported that they do not read aloud to children on a frequent basis (i.e., often or always), and an even greater percentage fail to read to children one-on-one. Also somewhat disturbing is the fact that a sizable percentage of respondents do

not make frequent attempts to ask children questions during or after reading times. Approximately 8% reported that they never ask children questions about the books during or after the shared experience. The same applies to activities that facilitate children's phonemic awareness.

Results from the multiple regression analysis suggest that certain characteristics related to the educator and the program itself appear to have a positive influence on how often educators promote language and literacy activities in their centers. Availability of print materials at the center was one of the strongest predictors of early childhood educators' willingness or ability to engage children in important literacy activities. Studies have revealed that a minimum of five books per child are necessary to provide a basic print-rich environment (Morrow & Weinstein, 1986; Neuman & Roskos, 1997). Insufficient resources, such as a lack of high-quality children's literature, can hinder the ability of educators to provide essential literacy experiences for children. The IRA and NAEYC recommend in their position statement that early childhood classrooms, schools, and public libraries include a wide range of high-quality children's books, computer software, and other multimedia resources (IRA/NAEYC, 1998).

The other two variables significantly associated with early childhood educators' efforts to promote language and literacy activities in their centers included the educator's confidence in the training he or she received in basic literacy skills instruction and the number of children cared for in a particular program. Educators who perceived that they had received adequate training in how to teach children basic literacy skills (e.g., how to read, recognize letters of the alphabet) were more likely to engage children in frequent language and literacy activities. Interestingly, simply having received some training in how to teach children how to read did not significantly predict greater efforts to promote children's literacy skills. These results seem to imply that educators must be confident in the level of training they have received before they are willing to make greater efforts to promote certain literacy-based activities. More opportunities for training are likely needed.

The regression analysis revealed that educators caring for larger numbers of children were more likely to promote language and literacy activities in their centers. This finding is somewhat surprising given our typical assumptions about class sizes (i.e., the smaller the better). However, in this study, the average number of children cared for was 14.7, well below the maximum recommended group size of 20 for 4- and 5-year-olds (Howes, Phillips, & Whitebook, 1992; Cost, Quality, and Child Outcomes Study Team, 1995). In the present investigation, data were not collected on adult-to-child ratios. It is very possible that early childhood educators in this study have assistance in their classrooms. If an additional adult were to be present in the classroom, the adult-to-child ratio would be approximately 1:7, which falls within recommended guidelines for adult-to-child ratios (IRA/NAEYC, 1998). There is some evidence, however, that young children can benefit from large-group activities. Dickinson and Sprague (2001) report that in their Home-School Study of Language and Literacy Development (HSLLD), children as young as 3 and 4 years old benefited from participating in large-group language and literacy activities.

While the outcomes from this study provide valuable insight into early childhood educators' efforts to promote children's literacy development, the data have limitations that should be noted. First, the data collected in this investigation are based solely on the early childhood educator's perspective. Self-report data are widely used across the social sciences; however, such data are susceptible to social desirability bias. In addition, it would be helpful in future studies to consider the perspective of others (e.g., parents) who can provide insight into early literacy practices with children. For example, parents could share what they do in the home environment to promote their children's language and literacy skills, or they could provide an additional perspective on their children's experiences at the centers.

Second, although respectable in size, the sample used in the present investigation was not randomly selected; therefore, it may or may not be fully representative of early childhood programs across the nation. Some early childhood programs have greater access to funding

sources and training support, enabling them to focus more attention on early literacy issues. In subsequent studies, it would be helpful to randomly select a group of educators from various early childhood programs to determine the extent to which early literacy skills are taught and if differences exist between program types.

Third, while results clearly indicate that the majority of early childhood educators in this sample believe they are implementing various activities to promote children's literacy development, the data are limited in the sense that they do not allow conclusions to be made concerning how the activities are actually implemented. For example, what strategies are these educators using to teach children how to recognize letters of the alphabet? How do they help children learn the sounds that each letter can represent? What types of questions do they ask children before, during, or after individual or group reading times? In what ways do they help children develop early writing skills? It is entirely possible that respondents in this sample believe they are doing the things necessary to promote children's literacy development, when in fact they might not have received sufficient training to know whether or not what they are doing is based on best practices established in the research.

Related to the above, respondents were asked only two questions on the survey that dealt with their training in basic literacy skills instruction (i.e., Have you received training on how to teach children to read? Do you feel you have received adequate training in how to teach children basic literacy skills?). It is important to know the answer to these two questions; however, more information could have been collected related to their experiences. For example, how much training have they received in early literacy instruction? Where did they obtain their training? In what areas do they need more in-depth training? What expectations exist to teach early literacy skills to the children in their care? As indicated in Table 1, the highest education level for over 70% of the respondents was a high school diploma. Unless they have actively sought out training in early literacy skills instruction, it is unlikely that many of these individuals have had formal training in this subject matter area.

More studies are needed in the future to determine with greater detail what types of strategies are actually being implemented to promote children's early language and literacy skills. Along the same lines, future efforts need to focus on early childhood educators' experiences with training in early literacy instruction. More data need to be collected to determine how much training is typically received by early childhood educators, what opportunities exist for training, the quality of the training, and the potential gaps that currently exist in early childhood educators' understanding of early literacy development that could be addressed by future trainings.

## **Implications for Practitioners**

In recent years, greater attention has been given to the role of early childhood education programs in promoting the language and literacy skills of preschool-age children. The early years of a child's life are a critical time for acquiring important language and literacy skills. Researchers, educators, parents, and policy makers are increasingly coming to the conclusion that more effort needs to be given to strengthening the quality of child care programs across this nation. While many educators are making tremendous strides in promoting activities that build the literacy skills of children in their centers, a large number of early childhood educators do not have the education or training required to help children develop the essential literacy skills they will need upon entrance into formal schooling arrangements.

Findings from this study and others indicate that there are factors that influence the ability and willingness of early childhood educators to promote important language and literacy activities in their centers. Educators need access to high-quality children's literature, including age-appropriate books and other print materials. They also need more in-depth training that provides them with the latest research-based information on how to teach children fundamental literacy skills. Federally funded programs such as Head Start receive some degree of support to promote

early literacy development within their centers; however, millions of children are cared for in programs that do not have financial support nor access to high-quality training in this area. More attention needs to be focused on how early childhood educators working in nonfederally funded programs can receive support and training that will assist them in their efforts to help children acquire essential early literacy skills.

## Notes

1. The term "early childhood educator" is used throughout this article in a broad sense to encompass teachers, child care providers, and other practitioners who work with children in center-based preschool settings. For a more in-depth discussion of issues related to terminology in the early childhood field, the authors refer readers to Ron Banks' article "Terminology in the Child Care Field," which is available online at <http://ecap.crc.illinois.edu/poptopics/terminology.html>.

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## Appendix

### Language and Literacy Promotion Survey Items

In my early childhood program, we...	Never	Seldom	Sometimes	Often	Always
Read aloud to children in a group setting.	1	2	3	4	5
Read aloud to children on an individual (one-on-one) basis.	1	2	3	4	5
Set aside a special time each day to read to the children.	1	2	3	4	5
Read aloud a variety of different books (e.g., rhyming books, alphabet books, counting books, traditional literature, picture books).	1	2	3	4	5

Reread favorite books.	1	2	3	4	5
Talk about books that we've read together.	1	2	3	4	5
Ask children questions about the books as we read (or after we read).	1	2	3	4	5
Provide opportunities for children to look at books and other printed materials on their own.	1	2	3	4	5
Teach children about different features of a book (e.g., front and back cover, top and bottom).	1	2	3	4	5
Teach children that printed letters and words run from left to right and across the page and from top to bottom.	1	2	3	4	5
Practice saying the alphabet with the children.	1	2	3	4	5
Teach children to recognize letters of the alphabet.	1	2	3	4	5
Teach children to distinguish between uppercase and lowercase letters.	1	2	3	4	5
Help children learn the sounds that each letter can represent.	1	2	3	4	5
Teach children to write letters of the alphabet.	1	2	3	4	5
Help children learn to write their names.	1	2	3	4	5
Help children identify different colors, shapes, and sizes.	1	2	3	4	5
Help children learn opposites (e.g., up, down).	1	2	3	4	5
Help children recognize numbers (i.e., 1-10).	1	2	3	4	5
Practice counting with the children.	1	2	3	4	5
Choose books to read aloud that focus on sounds, rhyming, and alliteration (i.e., recognizing the common sounds at the beginning of a series of words).	1	2	3	4	5
Have children sing or say a familiar nursery rhyme or song.	1	2	3	4	5
Encourage children to make up new verses of familiar songs or rhymes by changing the beginning sounds or words.	1	2	3	4	5

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