MOTHERS’ BELIEFS AND INVOLVEMENT: LINKS WITH PRESCHOOL LITERACY DEVELOPMENT

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Abstract. Background. Parents play a crucial role in early literacy development, by initiating and supporting literacy-rich activities with children. Purpose. This study examined mothers’ beliefs in relation to involvement in literacy activities and child literacy skills. Material and methods. Mothers (n = 75) completed surveys measuring their efficacy, attributions, motivation for involvement, frequency and interactive nature of literacy activities, and preschoolers’ literacy outcomes. An adaptation of Hoover-Dempsey and Sandler’s 1995 theoretical model was tested using correlations and structural equation modeling to examine direct and indirect effects. Results. Results showed that mothers’ efficacy, motivation to read for pleasure, and self-attributions were related to the frequency and quality of home literacy interactions. In addition, facilitative reading and frequent writing activities had the strongest direct effects on children’s literacy, while efficacy had an indirect effect through reading and writing activities. The interactive nature of book reading was more predictive than the simple frequency of reading books in home settings. Conclusions. This study has implications for parents and educators who work with parents and children.

Keywords: parent-child literacy interactions, early literacy acquisition, shared reading, self-efficacy, self-attributions.

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Home literacy interactions foster the development of children's literacy skill acquisition over time (Baker, Mackler, Sonnenschein, Serpell, 2001; Dickinson, Tabors, 1991; Sénéchal, LeFevre, 2002; Serpell, Sonnenschein, Baker, Ganapathy, 2002). Parents' involvement in children's pre-literacy development is critical during the preschool years, when children are acquiring both the skills necessary to read as well as an appreciation for reading (Arnold, Whitehurst, 1994; Bingham, 2007; Sénéchal, LeFevre, 2002; Sonnenschein, Munsterman, 2002; Snow, 1983). The ways that parents and other adults influence children's literacy development are dependent on a number of factors and beliefs.

Parental self-efficacy perceptions have a direct influence on a child's learning and competence perceptions. Parental self-efficacy, also referred to as a sense of "agency," influences their willingness to engage in a learning task with their child. Bandura (1997) defines self-efficacy as an individual's assessment of his or her power to influence an outcome on a specific task. Parents' self-efficacy influences their involvement with children's learning because it determines their perceptions of the value of their efforts in supporting school success (Goddard, Hoy, Hoy, 2004; Green, Walker, Hoover-Dempsey, Sandler, 2007; Hoover-Dempsey, Sandler, 1997). Parents provide a context that engages a child and encourages interest and participation in a learning task by facilitating experiences, translating and interpreting these experiences, and communicating value and efficacy for the task at hand (Jacobs, Eccles, 2000). They contribute to the child's sense of agency and competence by sending messages that communicate their positive assessment of the child's competence.

Attribution theory, closely related to self-efficacy theory, describes the causes individuals assign to outcomes of their behaviors. Two general categories of attributions exist: attributions to internal locus of control (individuals attribute their successes or failures to their own actions and efforts), and external locus of control (they attribute outcomes to outside factors; Weiner, 1995). Adults with an internal locus of control are convinced that their interventions and actions made a difference in the child's learning, whereas those with an external locus of control would postulate that other factors, such as children's innate ability, peers, and societal factors are more important. Parents' attributions are important in the nature of their involvement with children's learning,
the responsibility they feel for the progress students made, and the cues they send to learners about their potential for learning (Weiner, 1995). Although self-efficacy theory and attribution theory are closely related, it is important to note that self-efficacy judgments consider likely outcomes of future events, whereas attribution assessments pertain to events in the past (Graham, 1991). In addition, parental self-efficacy and self-attributions may be related to other involvement beliefs such as motivation for involvement and role construction (Freeman, Newland, Coyl, 2008).

**A Model of Parent Beliefs and Involvement**

According to Bandura’s (1986, 1997) Social Cognitive Theory an individual’s willingness to engage in academic tasks is based on a model of reciprocal determinism (Schunk, 1991). This engagement is a product of interacting factors including personal judgments, performance behaviors, and perceptions of the responses of others to one’s actions. Two major factors characterize this model – confidence that goals can be met, and the connections made between participation in an activity and the likelihood that one’s performance will meet a desired goal (Bruning, Schraw, Norby, Ronning, 2004).

Hoover-Dempsey and Sandler (1995) refined Bandura’s model to understand the influence of parents’ beliefs on their involvement in children’s learning (see also Green et al., 2007; Hoover-Dempsey, Sandler, 1997; Hoover-Dempsey, Walker, Sandler, 2005). They assumed that the factors identified by Bandura had an impact on the level and nature of parents’ involvement in the early school years. In the Hoover-Dempsey model, parent involvement is influenced by parent efficacy, role construction, and perception of opportunities for involvement. Parents’ efficacy determines the extent to which parents believe that their efforts in helping their children be successful in school will be fruitful (Hoover-Dempsey, Sandler, 1997). The ways that parents choose to become involved are dependent upon many factors, including the parents’ own knowledge and skills, demands on their time and energy, and requests for their involvement from children and teachers (Desimone, 1999; Hoover-Dempsey, Sandler, 1995; Hoover-Dempsey et al., 2005). Parent involvement then influences child development through
modeling and reinforcement of skills, as well as through instructional strategies. The impact of parent involvement is mediated by the use of involvement strategies that are developmentally appropriate (Hoover-Dempsey, Sandler, 1995).

Other researchers have examined the influence of parent beliefs on involvement and child outcomes. For instance, Hoover-Dempsey and others have examined parent role construction, viewing their role as one that includes involvement in children’s education, as a necessary condition for parent involvement (Hoover-Dempsey, Sandler, 1995; Eccles, Harold, 1993; Delgado-Gaitan, 1992). Also, caregivers who believe it is their responsibility to help their children become independent and competent are more likely to help children become successful readers (Brody, Stoneman, McCoy, 1994). However, additional parental beliefs about the nature of parent-child literacy interactions are also related to the quality of home literacy interactions (Bingham, 2007). For example, Sonnenschein, Baker, Serpell, Scher, Turitt, and Munsterman (1997) found that mothers who endorsed an entertainment focus, as opposed to a skills focus, engaged in more frequent literacy-related play activities with children, who themselves had correspondingly higher literacy scores. Thus, parental beliefs about their own and their children’s role in the development of child literacy skills are related to parental literacy involvement practices.

Studies have further examined the importance of parent efficacy and parent perceived control as direct influences on involvement decisions (Freeman et al., 2008; Hoover-Dempsey, Sandler, 1995; Machida, Taylor, Kim, 2002). According to Hoover-Dempsey and Sandler (1995), without a sense that they should be involved, that they are able to influence their child, and that involvement opportunities exist, parents simply will not get involved. Efficacy seems to directly impact parent involvement, and indirectly affect child outcomes (Seefeldt, Younoszai, Galper, Denton, 1998).

The current study extends the Hoover-Dempsey model in three important ways. First, this study examines parent involvement in the preschool period. Second, in addition to parent efficacy, this study examines parent attributions and motivations for involvement as interrelated predictors of parent involvement. Third, this study specifically examines involvement in parent-child literacy activities in the home.
Parent-Child Literacy Interactions

Parent-child book reading has been directly related to children’s language and literacy development (Bus, 2001; Yarosz, Barnett, 2001). Specifically, parent-preschooler shared reading is linked to emergent literacy, language growth, and reading achievement (Bus, 2001; Bus, van Ijzendoorn, Pellegrini, 1995). Parents who read aloud and encourage a positive outlook on reading influence children’s literacy acquisition (Baker et al., 2001; Morrow, 1995; Neuman, Copple, Bredekamp, 2000). Children who experience early parent-child book reading are more likely to learn how to read earlier and with greater ease (Lancy, 1994). Parents, in the role of a “literacy informant” (Whitehead, 1999, 66), are mediators between their children and the printed word (Sulzby, 1986; Yarosz, Barnett, 2001). Recently, researchers have examined the quality of parent-child literacy interactions, in addition to the quantity of book-reading interactions, as a predictor of child literacy skills (Bingham, 2007).

Engaging the child’s interest is an important facet in promoting quality parent-child literacy interactions. Early exposure to books and reading, including shared picture books, has been shown to enhance children’s interest in reading (Sonnenschein, Munsterman, 2002). Parents who are in tune with the child’s natural interests may also increase the child’s interest in reading (Ortiz, Stowe, Arnold, 2001). To increase children’s interest, their interactions with books and print should be pleasurable, involving delight and play (Bingham, 2007; Glazer, Burke, 1994; Sonnenschein, Munsterman, 2002; Whitehead, 1999). Caregivers should promote the child’s independence, be responsive to the child’s questions, engage in affectionate interactions during storytelling, support high levels of communication between the child and caregiver, and engage in frequent and high level questioning during storytelling. Parents who are responsive and affectionate during shared reading make reading more enjoyable and engaging and that increases the child’s attention, involvement in reading, and early literacy skills (Arnold, Whitehurst, 1994; Baker et al., 2001; Bingham, 2007; Brody et al., 1994; Sonnenschein, Munsterman, 2002; Whitehurst, Lonigan, 1998). DeBruin-Parecki (1999, 8-9) describes the key features of interactive storybook reading: “Mutual questioning and responding, making stories relevant to the child’s life, giving praise and feedback, explaining, physically sharing
the book, monitoring a child’s understanding, and adjusting mutual dialogue to acknowledge this understanding are all behaviors that enhance children’s literacy skills and comprehension”.

**Research Questions**

This study addressed the following research questions:

1) Are there associations between parent efficacy, attributions, motivation for involvement, level and quality of involvement, and preschool children’s literacy skills?

2) What are the direct and indirect paths from parent beliefs and involvement to children’s literacy skills, and how well does the theoretical model fit the data?

**METHODS**

**Participants**

Families were sampled from 18 registered center- and home-based childcare programs and preschool programs in the rural Midwestern U.S. Parents who were served by childcare programs included on the county extension childcare list were invited to participate via a letter distributed by the childcare provider. Response rates for parents ranged from 21-100 % per childcare. Both providers and parents signed informed consent forms.

A total of 75 mothers completed surveys in reference to their preschool age-child. Parents’ education ranged from High School to Graduate/Professional (62 % had college degrees), representing low (10 %), middle (52 %), and high (38 %) SES families. Most were two-parent dual-earner families or families in which one parent was pursuing a degree while the other worked. The majority of parents reported that this was their first marriage (84 %), while 6 % were separated, divorced, or never married, and 10 % remarried. The average age of mothers was 33 years, (range 22-45), and the average age of fathers was 34 years, (range 24-47). The average number of children in the household was 2.4 (range 1-6). If mothers currently had more than one preschool-aged child, they were asked to choose a “target child” and respond to questionnaire items with
that target child in mind. Mothers reported that the mean age of the target preschoolers referred to in the questionnaire was 3.83 years (range 2-5 years). In this study, 42% of the preschoolers were male, and 58% were female. Preschoolers and their parents were primarily Caucasian (80%), while the remainder was Native American, African American, or Hispanic. In total, 31.6% of preschoolers spent less than 20 hours in childcare, and 68.4% spent more than 20 hours per week in childcare.

Measures

Mothers completed surveys measuring their efficacy, attributions regarding children’s learning and problem solving, and their motivation for reading to children. They were also asked to report the frequency of reading and writing activities, the quality of interactive book reading with their preschool child, and to rate their child’s literacy skills. Most of the items on the questionnaires were answered on a five-point Likert scale, ranging from “not at all” to “very much”. Unless otherwise noted, mean scores are reported.

Efficacy. Two scales were used to measure mothers’ efficacy. First, an 11-item scale measuring their perceived ability to help their child grow, develop, and learn was adapted from Hoover-Dempsey, Bassler, and Brissie’s (1992) Parent Perceptions of Parent Efficacy Scale, which had a reliability of .81 in that study. The measure was reworded to address development and learning in the preschool period, as opposed to the school-age period, with items such as “My efforts to help my child learn are successful” and “I know how to help my child do well in preschool/child care”. Items were rated on a 5-point scale from “not at all” to “very much”, and negatively worded items were recoded, alpha = .79. This measure will be referred to as parent efficacy in this study.

Attributions. Closely related to mothers’ efficacy is mothers’ assessment of the impact they have on their child’s learning, in comparison to the influences of other adults and inherent child characteristics and effort. A series of three questions developed by Fees (1999) on the Growing Child Scale was adapted for use in this survey to assess parents’ attributions related to their child’s (a) ability to solve problems, (b) ability to do academic or school-type activities, and (c) use of simple reasoning and problem-solving skills. The following influences were rated: child’s
teacher or provider, their own parenting, their spouse’s parenting, the child’s inherited characteristics, and the child’s own efforts. Mothers rated each influence on a 5-point scale from “none” to “completely”. Items were grouped across the three items into (a) attributions to self, alpha = .63; (b) attributions to other adult (spouse and childcare provider), alpha = .78; and (c) attributions to the child (inherited characteristics and child’s effort), alpha = .76.

**Motivation for reading with children.** Since no formal measure was available, we designed a 5-item scale to understand parents’ motivation for reading with children. The items were rated on a 5-point scale from “not at all” to “very much”. Reading for pleasure was measured with a 3-item scale asking parents how motivated they are to read to their child for fun, to feel close, or to relax with their child (alpha = .80). Reading for their child’s learning was measured with a 2-item scale measuring motivation to read to their child in order to give their child a jump-start on learning and motivation to read because this is their responsibility (alpha = .60).

In order to account for their child’s role in literacy interactions, we also created a 3-item scale to assess mothers’ perceptions of their child’s motivation for reading. The items included children’s interest in looking at or pretending to read books with a parent, with playmates or siblings, or by themselves. The items were rated on a 5-point scale from “not at all” to “very much” (alpha = .58).

**Frequency of literacy activities.** Two scales were used to measure literacy activities in the home. The Read with Child scale (nine items) was adapted from other measures of home literacy (Caldwell, Bradley, 1984; Leseman, de Jong, 1998). The scale allowed mothers to mark the number of times per week they read in various contexts (e.g., books, recipes, instructions, mail, road signs, bedtime stories) on a 6-point scale ranging from rarely to five or more times per week. In addition, it asked them to rate the number of minutes they typically read in a reading session (5-point scale ranging from 0-5 minutes up to 20+ minutes), the number of books they typically read in a reading session (5-point scale ranging from start 1 book to finish more than 3 books), and the number of times per week their child asks to be read to (6-point scale ranging from never to once a day or more). The scale alpha = .74. The Write with Child scale (seven items) asked mothers to mark the number of times per week they
wrote or drew with their child in various contexts (e.g., writing postcards/mail, asking children to sign or decorate mail, making lists, helping child write, scribbling/drawing/coloring, using an easel/chalkboard/sidewalk chalk), alpha = .85.

**Interactive book reading.** Two survey scales, adapted from DeBruin-Parecki’s (1999) measure of adult-child book reading, were used to measure literacy interactions. Items were measured on a 5-point scale from “strongly disagree” to “strongly agree”. Adult facilitative book reading behaviors were measured with a 5-item scale measuring literacy-promoting behaviors including enjoying the book with the child, asking the child questions, relating the story to the child’s life, and letting the child choose the book or lead the story reading (alpha = .62). Child’s active book reading behaviors were measured with a 7-item scale measuring children’s literacy-rich behaviors such as asking questions, turning pages, trying to read, pointing to letters and words, and trying to rhyme words. Items were measured on a 5-point scale from “strongly disagree” to “strongly agree” (alpha = .64).

**Child’s literacy skills.** Mothers were asked to rate eight items measuring preschool literacy skills, on a 3-point scale from “not true” to “very true” of their preschooler. Items included behaviors such as writing their name, reciting the alphabet, rhyming, recognizing familiar word and letters, turning the pages of a book, telling part of the story, and answering questions about the story during book reading (alpha = .86).

**RESULTS**

**Descriptive Statistics**

Table 1 shows the means and standard deviations of all scales for mothers. Mothers reported fairly high levels of efficacy and attributions, rating themselves, other adults, and the child themselves as moderately influential on learning. They also rated each motivation for reading fairly high. On average, mothers reported fairly frequent writing activities and reading activities with their child, and rated their own and their child’s interactive reading behaviors fairly high. There was sufficient variability in all measures as evidenced by fairly normal histograms for each variable.
Table 1. Descriptive statistics

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<th>Variable</th>
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<td>Interactive book reading</td>
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<td>Child active reading (scale of 1-5)</td>
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<td>Child literacy (scale of 1-3)</td>
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Note: n = 75.

Associations between Parent Efficacy, Attributions, Motivation for Reading, Involvement, and Child Outcomes

Correlation coefficients representing the associations between mothers’ beliefs, home literacy activities, and child outcomes are reported in Table 2. As expected, the correlations of parent efficacy with self-attributions and reading for pleasure are moderate and statistically significant. Associations between mother efficacy and attributions with reading for learning are small and not statistically significant. Mothers’ motivation for reading because of the child’s interest in reading was related to reading for pleasure and mothers’ attribution to the child influencing his/her learning.

There were small to moderate associations of parent efficacy, attributions, and motivation for reading with home literacy activities. Mothers’ efficacy and attributions to the child were associated with reading and writing activities. Reading for pleasure was related to reading, writing, and adult facilitative reading. Reading for learning was only associated
with the frequency of reading. Reading for pleasure was also related to adult facilitative reading, suggesting that when parents are reading for pleasure, the interactions may be richer.

Mothers’ efficacy and attributions to other adults and to the child had small associations with child active book reading, but not with child literacy. The strongest associations with child outcomes were the associations of reading, writing, and adult facilitative reading with child active reading and child literacy. Writing with child and adult facilitative reading had moderate associations with child active reading. The direct and indirect influences of parents’ beliefs and involvement on child literacy will be further explored using structural equations modeling (SEM).

### Table 2. Associations between mother efficacy, motivation, literacy activities, and child outcomes

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Note: *p < .05, **p < .01.
Theoretical Model of Parent Influences and Model Testing

The theoretical model tested is represented in Figure 1. In this model, mother beliefs (efficacy, motivation for reading, attributions) were expected to be correlated, and would predict involvement in reading and writing as well as the quality of mother facilitative bookreading (except that reading for pleasure was not expected to be related to frequency of writing). The frequency of reading activities was also thought to predict the frequency of writing activities and the quality of mother facilitative bookreading. The frequency and richness of parent involvement was hypothesized to be predictive of child literacy skills. In addition, the path from parent efficacy to child literacy was tested for a possible direct effect.

Figure 1. Theoretical model predicting children’s literacy skills from mother beliefs and involvement

The proposed theoretical model of parent influences was tested using structural equations modeling (SEM, using Amos 4.0; Arbuckle, Wothke, 1999) with direct maximum likelihood using all of the available data. To evaluate model fit, a commonly used analysis strategy was
employed that included model trimming and model building (Kline, 1998). Chi square and p were used as indicators of model fit, with the expectation that a non-significant chi square value (p > .05) would indicate good model fit. The chi square ratio (χ² / df) was also used as an indicator of model fit, because the χ² statistic is sensitive to sample size and the number of parameters estimated (Arbuckle, Wothke, 1999). The chi square ratio (χ² / df) adjusts for these factors, and a ratio of less than 3.0 indicates good fit, although with smaller sample sizes a lower criterion may be more appropriate, such as 2.5 (Kline, 1998). MacCallum and Hong (1997) suggest using an additional index of model fit, the root mean square error of approximation (RMSEA) over the traditional GFI and AGFI indices. RMSEA was also used in this study, with values less than .05 interpreted as good model fit, values of .08 interpreted as moderate fit, and values of .10 or greater interpreted as poor fit (Arbuckle, Wothke, 1999; Browne, Cudek, 1993; MacCallum, Hong, 1997; Steiger, 1989). Lastly, the Normed Fit Index, NFI, was used as an indicator of the variance accounted for by the model, with a general rule that fit indices less than .90 suggest that the model could be improved.

In the proposed model, there were several non-significant paths, and the fit indices were not sufficient to indicate good model fit. With all of the variables in the model, the paths from efficacy to writing with child and adult facilitative reading were not significant. The paths from self-attribution to reading with child and adult facilitative reading were also non-significant. In addition, when controlling for writing and adult facilitative reading, the path from frequency of reading to child literacy skills was also non-significant. Because the fit indices were not significant, and in order to create a more parsimonious model, these paths were dropped from the model and the SEM was re-estimated.

The final model is shown in Figure 2. The more parsimonious model fit the data quite well, as indicated by the fit indices. The chi square value for this model was 4.96, with p = .838, indicating good model fit. The chi square ratio value in this study was .55. The value for RMSEA for this model was .00, with a 95% confidence interval from .00 to .08, again suggesting good model fit. The NFI value for this model was .99. Although the sample size in this study was not large, these fit indices accommodate for sample size and suggest that the model did fit the data quite well. The effect sizes in this study were in the moderate range and the data
were not abnormally distributed, again suggesting that the smaller sample size may be less problematic (Tabachnick, Fidell, 2001). In addition, previous studies of parent-child interactions and literacy outcomes have used SEM as an appropriate analysis technique with a limited number of variables included in the model (Carroll, Snowling, Hulme, Stevenson, 2003; McClelland, Morrison, 2003; Silvén, Niemi, Voeten, 2002).

![Structural equation model predicting children's literacy skills from mother beliefs and involvement. Model fit statistics: Chi square (χ²) = 4.96, P = .84; Chi square ratio (χ² / df) = .55; root mean square error of approximation (RMSEA) = .00; Normed Fit Index (NFI) = .99](image)

Releasing the non-significant paths improved the fit of the model (chi-square difference test p < .05 indicated improved fit). In the final model, there were two additional paths that remained non-significant (although the p value was close to .05), the direct path from efficacy to child literacy skills, and the direct path from reading for pleasure to adult facilitative reading. However, releasing these additional paths did not
improve the fit of the model. The model in Figure 2 was thus retained as the most parsimonious model, and the paths were retained based on theoretical associations, as well as to control for the direct effect of parent efficacy on child outcomes.

The direct, indirect, and total effects in the model are reported in Table 3. Statistically significant direct effects are noted. Adult facilitative reading and the frequency of writing with child had the strongest direct effects on children’s literacy. The direct effect from parent efficacy to children’s literacy skills is not significant when controlling for adult facilitative reading and frequency of writing. However, there were indirect effects through reading, writing, and adult facilitative reading. The total effect from parent efficacy to child literacy was as strong as the direct effects from adult facilitative reading and the frequency of writing with child. Reading for pleasure and self-attributions also had direct effects on mothers’ involvement, including reading and writing with their preschoolers.

**Table 3. Summary of mother's direct, indirect and total effects on child literacy skills**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Dependent variable</th>
<th>Direct effects</th>
<th>Indirect effects</th>
<th>Total effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy</td>
<td>Read with child</td>
<td>.34**</td>
<td></td>
<td>.34</td>
</tr>
<tr>
<td></td>
<td>Write with child</td>
<td></td>
<td>.15</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>Adult facilitative reading</td>
<td>.10</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Child literacy skills</td>
<td>.21</td>
<td>.07</td>
<td>.28</td>
</tr>
<tr>
<td>Read for pleasure</td>
<td>Read with child</td>
<td>.25*</td>
<td>.14</td>
<td>.21</td>
</tr>
<tr>
<td></td>
<td>Write with child</td>
<td></td>
<td>.07</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Adult facilitative reading</td>
<td>.08</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Child literacy skills</td>
<td>.22</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>Self-attribute</td>
<td>Write with child</td>
<td>.22*</td>
<td></td>
<td>.22</td>
</tr>
<tr>
<td></td>
<td>Child literacy skills</td>
<td>.06</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Read with child</td>
<td>Write with child</td>
<td>.45**</td>
<td>.29</td>
<td>.45</td>
</tr>
<tr>
<td></td>
<td>Adult facilitative reading</td>
<td>.20</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Child literacy skills</td>
<td>.28</td>
<td>.28</td>
<td></td>
</tr>
<tr>
<td>Write with child</td>
<td>Child literacy skills</td>
<td>.25</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td>Adult facilitative reading</td>
<td>Child literacy skills</td>
<td>.25</td>
<td>.25</td>
<td></td>
</tr>
</tbody>
</table>

Note: * p < .05, ** p < .01.
Approximately 26% of the variance in child literacy skills was accounted for by the direct effects of mother efficacy, adult facilitative reading, and writing with child, as well as multiple indirect effects of mother beliefs through literacy involvement. The direct effects of efficacy and reading for pleasure, along with the indirect effects of self-attributions, accounted for 26% of the variability in the frequency of reading with children. Direct effects of self-attributions, along with the indirect effects of efficacy and reading for pleasure, accounted for 29% of the variability in writing with children. Direct effects of reading for pleasure and frequency of reading, along with multiple indirect effects, accounted for 14% of the variability in adult facilitative reading.

DISCUSSION

The main goal of the present study was to expand the Hoover-Dempsey and Sandler's (1995) model to examine maternal literacy involvement with preschool children. Since parents have been recognized as children's first and most important teachers (Powell, 1989), understanding more about the factors that influence their involvement is critical. This study demonstrated that the model was a good fit for explaining maternal involvement in literacy activities and the effects of involvement on preschoolers’ literacy skills.

Associations between Beliefs, Involvement, and Literacy

Beliefs and motivation for involvement. Mothers’ efficacy beliefs were related to their motivations for involvement in literacy activities. Mothers who felt efficacious in their involvement with their child and attributed their child’s progress to their own parenting effort were more likely to read for pleasure or enjoyment with their child, but were not necessarily motivated to read for learning. This seems to suggest that mothers who feel efficacious are better able to relax and become more interactive with their child, which has been shown to foster children’s literacy skills (DeBruin-Parecki, 1999; Sonnenschein, Munsterman, 2002). Motivation to read for pleasure was an important factor in children's developing literacy, as it was related to greater child motivation to read,
more interactive reading, and more frequent literacy activities in the home settings. Reading for pleasure or entertainment has been related in previous studies to home literacy practices and child literacy skills (Sonnenschein et al., 1997).

**Beliefs and involvement.** In line with the theoretical model proposed (Hoover-Dempsey, Sandler, 1995; Green et al., 2007), specific mothers’ beliefs were directly associated with their level of literacy involvement. Efficacy, self-attributions, and motivation to read for pleasure were all related to one another, and predicted the frequency and interactive nature of literacy activities. One interesting finding was the link between mother efficacy and child-attributions. Mothers who felt efficacious were more likely to attribute their child’s success to their own parenting efforts, but were also more likely to agree that their child has an impact on his/her own learning, and those mothers did in fact allow their child greater involvement in literacy activities. Further studies should focus on both parent and child attributions as important predictors of early literacy activities.

**Involvement and preschool literacy.** One of the most important findings from this study was the conclusion that the interactive nature of book reading is more predictive of child literacy skills than the simple frequency of reading books at home. Bingham (2007) also found that the quality of shared book-reading was more important than the quantity of home literacy interactions in predicting print concepts and letter knowledge. Past research has found that it is important for reading to be interactive and enjoyable, allowing the child to take an active role in the experience, to ask and answer questions, and to lead the communication (Baker et al., 2001; Brody et al., 1994; Meyer, Wardrop, Stahl, Linn, 1994; Sonnenschein, Munsterman, 2002). Another important finding in this study was that the frequency and nature of writing activities with preschoolers was related to literacy skills acquisition. Writing may foster development of literacy skills that are somewhat different from those skills that are supported by reading with children (Dyson, 2002). Specifically, when parents write with their children, they ask them to recognize and reproduce letters, sound out words, and translate oral to written communication. This process may help shape their knowledge of grapheme-phoneme correspondence. In this study, both mothers’
facilitation of interactive reading and the frequency of writing activities with their child were related to the level of the child’s involvement in literacy activities.

The power of this interactive and child-guided approach to literacy learning is also supported by research (Baker et al., 2001). Grolnick, Ryan, and Deci (1991) found that when parents allowed their children to guide learning tasks, children developed a stronger commitment to learning and were more likely to value the task and their own efforts. Parents’ attitudes and beliefs about their children and the learning processes affect the quality of the feedback they give their children, and consequently influence children’s values for learning tasks (Eccles, 1993).

In learning interactions with children, parents model values, communicate perceptions of the child’s ability, and imply expectations for future success; they create an entire social and emotional climate as they communicate these beliefs to children (Jacobs, Eccles, 2000). Jacobs and Eccles’ model of parent-child influences summarizes the co-directional impact of parent beliefs, leading to specific parent practices, resulting in the child’s positive beliefs about themselves and increased involvement in the activity. This involvement and the quality of the experiences then communicate information to both parent and child about values and self-beliefs, which in turn influence parent practices and beliefs.

In order for children to lead adult-child literacy interactions, the activities need to be appropriate for the preschool child’s developmental level. Developmentally appropriate practices play a central role in the development of children’s literacy, because they allow the child to be involved in their Zone of Proximal Development (Copple, Bredekamp, 1997; Glazer, Burke, 1994; Green, Lilly, Barrett, 2002; Neuman et al., 2000). In this study, interactive child-directed activities in particular led to greater literacy skills for preschoolers. This finding is also in line with other studies of children’s literacy (Neuman et al., 2000). In addition, the learning potential is increased in activities that the child sees as meaningful, such as writing a letter to someone or writing down a recipe (Copple, Bredekamp, 1997). Thus, one recommendation from this study is that parents should be engaging in highly interactive reading sessions, as well as interactive writing sessions across multiple contexts that are made meaningful for children.
**Implications**

Helping children acquire skills, as well as meaning-centered understandings of early literacy will increase children's achievement and positive attitudes toward reading (Whitehurst, Lonigan, 1998). The information from this study could be used in educational programs for parents, educators, and other professionals who work with parents and children. These experiences could help increase parents' sense of efficacy and their empowerment for supporting children's learning. In addition, those adults who support literacy development could learn a variety of strategies to engage children in reading and writing activities, such as writing stories, letters to relatives, grocery lists, and making books. Parents and providers may learn through these activities to enjoy the reading experience with children, making literacy enjoyable first, and educational second (Glazer, Burke, 1994; Whitehead, 1999). Lastly, parents and other caregivers may learn to make reading and writing as interactive as possible by talking with children while reading and writing and encouraging children to take the lead. They could, for example, ask the child to choose the books, talk about the storyline, and ask for predictions about what will happen next in the story (Brody et al., 1994; Whitehurst, Lonigan, 1998; DeBruin-Parecki, 1999).

For professionals invested in children's literacy, it is crucial to understand the factors that support parents' literacy involvement, their beliefs and motivations for involvement, and the impact this has on children's early literacy development. If adults invest in children's literacy, children may have opportunities to discover the joys of literacy across multiple contexts and acquire the literacy skills necessary to have a full, productive life.

**References**


MOTINŲ ĖSITIKINIMAI IR ĖSITRAUKIMAS: SĄSAJOS SU IKIMOKYKLINUKŲ RAŠTINGUMO VYSTYMUSI

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