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Early Literacy Outcomes and Parent Involvement

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Central Panhandle Regional Readiness HUBS

Florida Network for Community-Based Early Learning and Professional Development HUBS

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Abstract

This study examined parental involvement of their child's early literacy skill development in settings of child care centers and preschools. Do parent involvement interventions related to early literacy influence child early literacy outcomes? This intervention study provided parents of preschool children with early literacy knowledge to enhance their child's early literacy skill development. Sixty-seven children from five participating child care centers were included in this study. Parent-child interactions were designed to promote dialogic reading, vocabulary development, and print awareness. Parents participated by completing the intervention activities with their child. Teachers served as a link between parents and children.

Executive Summary

Context

There has been a recent focus on early literacy from the local, state, and national level. School readiness coalitions (Florida Governor's Office, 2000) have been implemented in local areas, Just Read! Florida (Florida Department of Education, 2001) was established, and Early Reading First (No Child Left Behind, 2001) seeks to create "centers of excellence" in early childhood programs at the national level. Along with this recent focus has come a surge of literature supporting the need to study literacy development in preschool children (Smith, 2001; Sonnenschein, Baker, Serpell, & Schmidt, 2000; Lonigan, Burgess, & Anthony, 2000; Lauren & Allen, 1999; Whitehurst & Lonigan, 1998).

Partners

In 2001 the Florida Network of Community-Based Early Learning and Professional Development HUBS was instituted to design and field-test a model for a statewide "support infrastructure" for Florida's emerging school readiness system. Initial years were devoted to establishing local partnerships and "early learning and professional development hubs", creating a statewide network and identifying focus areas. The purpose was to translate research findings that are linked to best practices in a particular school readiness related area or domain.

The Central Panhandle Regional Readiness HUBS Implementation Team includes faculty, practitioners, and stakeholders who provided "areas of expertise" and planning. Central Panhandle HUBS determined the need for research to be focused on emergent and early literacy practices designed to improve child literacy outcomes and promote parent involvement in school readiness. Central Florida counties represented include Calhoun, Gadsden, Leon, Liberty, and Jackson. The HUBS Implementation Team is comprised of university faculty affiliates and

associates; community college faculty; representatives of subsidized, faith-based, and Head Start childcare centers; school officials; school readiness coalition members; and health services advisors.

In 2002, HUBS served as a catalyst and provided technical support for local coalitions and partnerships to apply for early literacy funds through the U.S. Department of Education's Early Reading First Initiative. In the final phase of implementation in 2003, HUBS was used to identify potential beta sites for evaluation of research-based practices. Center selection included one faith-based affiliation with a subsidized population, two with subsidized populations, and two for-profit with faith-based affiliations which were then grouped purposively into Intervention and Comparison centers based on similarity in demographics and center type. The Head Start centers were not available for participation due to ongoing literacy interventions.

Pilot Study Findings

This report presents the findings, implications, and recommendations based on the HUBS pilot study conducted in 2003 in Gadsden, Calhoun, and Leon counties using subsidized and faith-based childcare centers. This study was funded in part by the Florida HUBS initiative including support from the Florida Congressional delegation and the U.S. Department of Education, Office of Education Research and Innovation.

Researchers have found that children gain the skills necessary to read and write during early childhood (Purcell-Gates, 2001; Whitehurst & Lonigan, 1998). However, there are few research studies in the literature on involving parents in children's early literacy skill development. For this reason, the Central Panhandle of Florida Regional HUBS sought to fill that gap in the literature and prompt parental involvement in preschool children's early literacy development. Parents and preschool children received an eight-week intervention that provided parents with information about early literacy and activities they had the opportunity to participate in with their child. The effectiveness of the intervention was examined through pre and post-

assessments on children and then compared with children from a comparison group who did not receive the eight-week intervention.

Refined Research Question (Desired Outcome): Do parent involvement interventions related to early literacy influence child early literacy outcomes?

The effects of parent involvement on the early literacy skill development of young children were examined. Forty-one children and their parents were selected from three child care centers and asked to participate in an eight-week early literacy intervention. Participants completed a series of measures of early literacy prior to interventions with parents and then again after the interventions with parents. In addition, 26 children were selected from two childcare centers to serve as a comparison group by completing the pre- and post-tests eight weeks apart.

Significant scores from pre- to post-test were found for all four language measures, but the only group differences were found for the print awareness post-test and the receptive vocabulary post-test. On the Print Awareness test and the Receptive Vocabulary test the comparison group yielded less change from pre-test to post-test than did the intervention group.

Results from the statistical analyses showed that an early literacy intervention can be effective in increasing young children's print knowledge. However, it does not support an increase in basic concepts in young children. With vocabulary, one measure was supported while another measure did not show a significant difference in scores among groups. This could be due to differences in the vocabulary assessments. The Peabody Picture Vocabulary Test-Revised (PPVT-R) measures vocabulary development by while the Receptive Vocabulary test measures vocabulary knowledge achieved in reading instruction. The Receptive Vocabulary test allows for more sensitivity of vocabulary. The test includes 40 words and their pictures for the child to match. The PPVT-R, however, does not provide a wide range of vocabulary words to assess the child's vocabulary knowledge.

Parent Involvement and Perceptions regarding Early Literacy Outcomes of Children

Our early literacy intervention provided parents with information and resources to interact with their child. Print-based materials including newsletters and instructional and activity sheets for children's skill development were distributed by the child care providers. Parents were encouraged to engage in the early literacy activities with their child in their home environment. Through the weekly newsletters and activity sheets, early literacy components including print awareness, recognizing words as symbols, vocabulary, and dialogic reading were introduced.

Data were collected from parents (N = 35) regarding involvement and perceptions of their role in their children's early literacy outcomes. Thirteen parents from the intervention centers and twenty-two parents from the comparison centers completed and returned the parent questionnaire.

Previous research indicates the value of parental involvement in children's early literacy including print awareness, vocabulary, and language development (Senechal & Lefevre, 2001; Crain-Thoreson, et al., 2001; Metsala, 1996; Rush, 1999; Neuman, 1996; Sonnenschein & Munsterman, 2002; Tabors, et al., 2001; Whitehurst, et al., 1994). Parents were asked to report the average amount of time spent engaged in early literacy activities per week with their child. Five parents reported spending up to 30 minutes per week with their child. An additional five parents reported spending between 30 and 60 minutes per week with their child. All of the parents who reported spending time with their child were participants at centers where the intervention was being offered.

The Child-rearing and Education Research Instrument General Form (Schaefer & Edgerton, 1980) was used to measure parent view on education with regard to their children. The score indicates as tradition or conservative view towards education practices. The scale is designed that scores are standardized to generate a score above zero or a negative score. A higher score value indicates a more progressive perception related to education and a lower score value indicates a more conservative perception. The scores ranged from a value of 17 to 52, creating a mean of 33.5 and standard

deviation of 6.89 (n = 35). Pearson Correlation (2-tailed) were used comparing the parent perception scores to the outcome measures of post-test scores of early literacy components, although none of the score correlations were statistically significant. The parent perception scores were also not significantly correlated to minutes per week reported as spent with the child engaged in early literacy. One statistically significant result indicates that scores of parents in the Intervention group were significantly lower than the scores of parents in the comparison groups. This indicates that intervention parents are more conservative in their views towards educational practices.

Implications

An early literacy intervention can be effective in increasing young children's print knowledge. The results from this study showed support for providing an intervention in the primary dyadic activity context, namely the parent-child relationship. Through this context, young children learn best. The print awareness post-test scores yielded a significant difference between the comparison group and the intervention group. Post-test scores in the intervention group increased while post-test scores in the comparison group were similar to the pre-test scores. Thus, we can conclude that the intervention was effective in increasing print awareness in young children.

The Receptive Vocabulary test was designed to assess vocabulary knowledge of words children receive in reading instruction. This assessment showed a significant difference in group scores from the pre-test to the post-test. The books sent home, that were part of the intervention, could have increased the vocabulary knowledge for the intervention group. Parents also could have participated in dialogic reading with their child, which included expressing the meanings of some of the words included in the books.

Results showed that parents can be effective in increasing young children's print awareness. In addition, teachers can provide parents with early literacy information they can use with their child. The intervention was not effective in increasing all vocabulary measures or basic concepts in young children. However, the results found a significant

difference in one vocabulary measure that is directed at vocabulary achieved through reading instruction. Methodological reasons were identified for differential results.

This study provides support for continuing research in early literacy and parent involvement. The increase of scores from pre-test to post-test show how important this age is for growth in pre-reading skills. The findings related to print awareness assessments also suggests that practitioners might want to teach children to say the alphabet, as well as teach them the names of letters and their corresponding sounds.

The results from this study show that vocabulary can be enhanced in young children regardless of an early literacy intervention. Vocabulary scores improved in all centers on both the PPVT-R and the Receptive Vocabulary test. Therefore, early literacy interventions could be focused on areas that are improved through parent and teacher instruction. This includes letter-knowledge, conventions of print, and vocabulary words that are shown in books.

Finally, those working with young children's literacy skill development must be aware that there are certain developmental levels that are appropriate for a child to achieve. For example, preschool children are able to express relationships of objects through words, show an increase in word learning, have a better understanding of concepts, and have more emotional expression (Bloom, 1998). Preschool children are learning words that are associated with objects and events. Around the age of four, children can separate objects into different categories through expression of language. In addition, their vocabulary is increasing at a fast rate.

For print awareness, most preschool children are able to understand conventions of print if trained. They can learn letters and sounds. However, this skill is achieved best through instruction. This skill requires resources, such as print, and is learned rather than acquired without instruction.

Directions for Future Research

The knowledge gained from this study shows a need to further examine parent effects of children's print awareness. Print awareness has been performed in research as a component of early literacy (Burgess, Hecht, & Lonigan, 2002; Lonigan, Burgess, & Anthony, 2000). Lonigan et al. (2000) performed a longitudinal study that examined emergent literacy skills with later reading ability. They found that letter knowledge and phonological sensitivity were significant factors in children's ability to decode words in reading. Therefore, print awareness is an important topic of study for future research in understanding early literacy skill development.

One interesting possibility for future research would be studies related to parent knowledge of print and its relation to child print knowledge. For example, the relations between child print knowledge and parent education level, print availability in child accessible areas of the home, and parent attitudes towards print could be studied. A limitation of this study was that the sample size was small and chosen for convenience. Increasing the sample size, randomizing the sample, and including more print awareness components in the intervention could improve this study. In addition, more print awareness assessments measuring child print knowledge could be added. One constraint when assessing children is their short attention span. Therefore, the assessments must be split into separate sessions. There are new tools developed that assess early literacy skills in young children in short sessions (e.g., Get Ready to Read). Future research could examine the effectiveness of these tools for assessing young children. Finally, gender and race could be examined in future studies. A longitudinal study would provide insight into the changes in gender and race and literacy skills. For instance, a group of children that attended the same school could be examined to see the gender and racial differences in literacy over time.

Project Administration

Part I: Organizational Information

Name of Regional Readiness HUB:

Central Panhandle of Florida Regional Readiness HUB

Area of Focus:

Parent Involvement in Children's Early Literacy

University Anchor:

Florida State University

Local School Readiness Coalition Anchor:

Leon County School Readiness Coalition

Regional School Readiness Coalition Partners:

Leon, Jefferson, Jackson, Calhoun, Liberty and Gadsden Counties School Readiness Coalitions

Implementation Team Co-Chair/Leadership:

Ronald L. Mullis, Ph.D., Chris Duggan, Leon/Gadsden School Readiness Chair, Ann K. Mullis, Ph.D., Tom A. Cornille, Ph.D., Research Assistants: Amy C. Delacova, Nicole L. Sullender

Part II: Translate Research Base to Classroom Strategies

1. **Translating research base into classroom strategies or programs you identified to meet local coalition need:**
 - a. Using the literature review regarding practices and measurements, a curriculum was developed and implemented in the Intervention sites.
 - b. Local coalitions and community representatives participated in pre- and full-application process for United States Department of Education Early Reading First Initiative grant.
 - c. Recommended practices were disseminated to partners through newsletter mailings and reports submitted to State Team and presentations to other Regional HUBS at Florida HUBS Implementation Team meeting.
2. **Selection of Beta sites (Spring 2003)**
 - a. Intervention Sites
 - i. Faith-based, subsidized center in Gadsden County, selected to participate based on needs, population, and affiliation.
 - ii. Faith-based center in Leon County, selected to participate based on population and affiliation.
 - iii. Subsidized center in Leon County, selected to participate based on needs and population.
 - b. Comparison Sites
 - i. Subsidized center in Calhoun County, selected based on needs and population.
 - ii. For-profit, faith-based center in Calhoun County, selected to participate based on population and affiliation.
 - c. Other Selection Notes
 - i. Head Start sites were solicited to participate, with limited availability to participate due to extensive early literacy projects and intervention research being conducted in the region.
 - ii. Suggestions for Beta Sites were solicited from HUBS Regional Team members, availability of targeted populations, and willingness to participate.
3. **Beta-Testing**
 - a. Implementation
 - i. Pre-Assessments of parents using a Parent Questionnaire, of teachers using the Literacy Acquisition Perception Profile, and of children's Literacy skills using Peabody Picture Vocabulary Test (Revised) and the Boehm Test of Basic Concepts for Pre-Schoolers were conducted 2/24/03 through 3/3/2003.

- ii. Eight weekly interventions conducted on site with center-based instruction provided to children and send-home support and instructional materials provided to teachers and parents between 3/3/2003 and 5/2/2003.
 - 1. Weeks 1 and 2: Phonemic Awareness
 - 2. Weeks 3 and 4: Vocabulary Building
 - 3. Weeks 5 and 6: Print Awareness
 - 4. Weeks 7 and 8: Dialogic Reading
- iii. Additional pre-assessments integrated including the Preschool Comprehensive Test of Phonological & Print Processing: Print Awareness Subtest and Receptive Vocabulary Subtest integrated between Intervention weeks 4 and 5, 4/14/2003 and 4/21/2003.
- iv. Post-Assessments with children, parents, and teachers began 5/5/2003 with completion 5/16/2003.
- v. Data entry/analysis with findings to be disseminated.
- vi. Refined Research Question (Desired Outcome): Do parent involvement interventions related to early literacy influence child early literacy outcomes?

Timeline of Significant Events

August-December 2001

9/1/2001 Orientation Meeting, University of North Florida Faculty, Drs. Fountain & Cosgrove & Dean Ralston, Florida State University College of Human Sciences.

9/1/2001 HUBS presented at FSU Family Institute Advisory Board Meeting By Dr. Cosgrove
Implementation Team established with faculty, staff, and local coalition representatives, Affiliate FSU Faculty, Associate, and Community representatives.

Three liaison meetings with Implementation Team Members.

Selected assistant coordinator.

Established research focus on interaction with peers and familiar adults, and parental involvement in children's learning and transition to school.

January-April 2002

Met with Faculty Affiliates, identified research agenda, and solicited research expertise regarding tools, curriculum, and measurements.

Project Orientation for implementation team members.

Began literature review, prepare bibliography of current empirical based works related to parental involvement in children's early literacy development.

May-July 2002

Served as Early Reading First “Rapid Response Teams” and facilitated United States Department of Education Early Reading First 2002 Pre-Application process with Leon School Readiness Coalition as lead agency with involvement of Leon, Gadsden, Jackson, & Calhoun School Readiness Coalitions

Pre-Application submitted 7/15/02.

August-December 2002

Upon invitation from U.S. Department of Education, Early Reading First Application process coordinated with partners and Proposal submitted 10/11/02.

Reviewed/Selected measurement tools for use with children, parents, and teachers.

Coordinated/offered Regional Implementation Team Meeting hosted by Leon School Readiness coalition with limited participation from regional partners.

Bi-monthly newsletter developed/distributed to inform partners of research methods and practices.

January-April 2003

Completed literature review for adequate measurement tools, research-based practices, design strategy, additional child outcome measures integrated into design.

Center Selection including 3 Intervention Sites, 2 comparison sites including 1 faith/subsidized, 2 subsidized, 2 for-profit/faith; Head Start centers not available for participation due to ongoing literacy interventions.

Research Design and Pre-Assessment Protocol established and approved through Human Subjects Review Board.

Early Literacy curriculum developed and administered in intervention sites including parent newsletter with interactive exercises to promote literacy development in young children.

May-July 2003

Conclude intervention, conduct post-assessments with children, parents, teachers, data collection completed 5/16/2003.

Follow up with centers including providing project Final Report of findings and provide comparison centers with curriculum and any additional support requested.

August-December 2003

Manuscript prepared for submission of findings for publication in refereed research journal.

Submission of findings for poster presentation at 2004 Head Start Research Conference.

January-June 2004

Presentation of findings at Southeast Evaluation Association Annual Meeting, 1/29/2004.

Share research findings with Regional and State HUBS Team members through distribution of Technical Report 5/31/2004 and publication on-line.

Notification of acceptance for presentation of findings at 2004 Head Start Research Conference 6/26/2004.

Research/Resource Limits

1. Unanticipated Events

Participation by regional team members was limited in face-to-face meetings scheduled and hosted, but partners were supportive of efforts and offered suggestions via phone conversations.

In making contacts for involvement in centers, three Head Start centers report that they were already active in Early Literacy Projects and had daily or weekly literacy activities being coordinated in their centers.

2. Project Management

Grant/Research administration is time intensive for project management with limited professional staff allocation and personnel funding.

Administrative tasks follow:

1. Grant Proposal Submission through Family & Child Sciences Department, College of Human Sciences, Office of Research and Sponsored Programs, and ensure adequate response to request for deliverables by funding agency, University of North Florida.
2. Protocol including preparation and participation in Human Subjects Review Board to approve research design and methods.
3. Training for staff to ensure knowledge and skill level adequate to design, implement, and translate research findings to stakeholders.
4. Clerical support to process reimbursement claims, coordinate travel arrangements as needed supplemented by Department of Family and Child Sciences.
5. Fiscal management support to ensure proper use of funds as provided by College of Human Sciences Administration.
6. Minimal supply budget limits the purchase of materials and supplies used for research intervention, approximately \$450 per center for 8-week intervention including pre-test, implementation, and post-testing.
7. Selection of three versus original five intervention sites and two comparison sites due to limited staff and travel budgets.

Research-Based Practices

Introduction

There has been a recent focus on early literacy from the local, state, and national level. School readiness coalitions (Florida Governor's Office, 2000) have been implemented in local areas, Just Read! Florida (Florida Department of Education, 2001) was established, and Early Reading First (No Child Left Behind, 2001) seeks to create "centers of excellence" in early childhood programs at the national level. Along with this recent focus has come a surge of literature supporting the need to study literacy development in preschool children (Smith, 2001; Sonnenschein, Baker, Serpell, & Schmidt, 2000; Lonigan, Burgess, & Anthony, 2000; Lauren & Allen, 1999; Whitehurst & Lonigan, 1998).

Researchers have found that children gain the skills necessary to read and write during early childhood (Purcell-Gates, 2001; Whitehurst & Lonigan, 1998). However, there are few research studies in the literature on involving parents in children's early literacy skill development. For this reason, the Central Panhandle of Florida Regional HUBS sought to fill that gap in the literature and prompt parental involvement in preschool children's early literacy development. Parents and preschool children received an eight-week intervention that provided parents with information about early literacy and activities they had the opportunity to participate in with their child. The effectiveness of the intervention was examined through pre- and post-

assessments on children and then compared with children from a comparison group who did not receive the eight-week intervention.

Language development in preschool children includes: expression of relationships, increase in word learning, emotional expression, and understanding concepts (Bloom, 1998). Preschool children are learning names of objects and relationships between things and events. At the age of four children show signs they can use language to categorize objects. In other words, they can separate objects into different categories through expression of language. In addition, their vocabulary is increasing at a dramatic rate in the number of words they learn from month to month. The word learning process in preschool children is known as fast mapping; a new word is associated with its meaning after a brief encounter (Feldman, 2001). At the age of three, children are able to use plural words, past tense, and place articles (the, a) in front of words. Four and five year old children are able to understand the concept of the story as well as show storytelling skills. They can express meaning, change of mind, and change of focus through language. Language learning, similar to early literacy, consists of a child's knowledge base from their experiences.

Early literacy skills are those skills deemed requisite to formal literacy acquisition, including expanding vocabulary and language, understanding concepts of print, phonemic awareness, demonstrating phonological awareness, knowledge of letters, and comprehending stories (Florida Institute of Education, 2002). These skills are cultivated during the preschool years, from age three to five, and can be enhanced through parent involvement. A home literacy environment, including shared reading, can influence reading and language development in children (Burgess, Hecht, & Lonigan, 2002).

Different theoretical frameworks have been applied to the examination of early literacy skills among young children. For example, Piaget (1969) concluded that language represents a verbal pattern that follows a chain of actions and that thought through language represents elements of structure. In other words, language is a

notation for a system of cognitive instruments including classifications and relationships (Piaget, 1969). Further assumptions by Piaget show that language can distinguish different levels and contents of an object as well as describe the relationship between objects. He believed language possesses its own logic and that children can be trained to use expressions through logic.

Extending Piaget, Vygotsky (1962) stressed that the environment of the child, the communicative processes, and the experiences that take place can shape the development of thought through language. According to Vygotsky, social factors can influence language and thought. He emphasizes that the surrounding environment, including the tasks a child is given, can affect their development.

From a broader contextual basis, Bronfenbrenner and Morris (1998) proposed that human development takes place through proximal processes, which are reciprocal interactions that occur on a regular basis over an extended period of time. He followed that proposition with a second proposition that proximal processes among each individual vary according to the characteristics of the developing person, the environment, the nature of the developmental outcomes, and the changes occurring over time. Bronfenbrenner further asserted that within a primary dyadic activity context, young children learn best. Therefore, through using Bronfenbrenner's contextual model, this study provided dyadic activities to parents to complete with their child.

Data from the National Center for Education Statistics (2002) showed that 66.2% of four-year-old children are in center-based early childhood care and education programs. That percentage increases for five-year-old children with 72% in center-based care. Center-based early childhood care and education programs include day care centers, Head Start, preschool, nursery school, pre-kindergarten, and other early childhood education programs (NCES, 2002). This study examined parental involvement of their child's early literacy skill development in settings of child care centers and preschools.

Parents as language users play a key role in enhancing literacy development in young children through the interactions they share with their child. Parents create a literacy learning environment through storybook reading, sharing vocabulary words, and providing print awareness activities such as discussing the components of print. However, many parents are unaware that their preschool-age child is developing early literacy skills and therefore are not working to enhance early literacy development. For this reason parents need to be informed about their child's literacy development and how they can serve as a teacher to their child (NCEDL, 1999; Whitehurst et al., 1994).

Recent research has been performed on young children's literacy development (Lonigan, Bloomfield, & Anthony, 1999; Whitehurst & Lonigan, 1998), the need for parents to be involved (Rush, 1999), and the need for a parent-teacher connection (Patrikakou & Weissberg, 2000; NCEDL, 1999). Unfortunately, few researchers have examined the ways to connect parents and teachers in the preschool years and provide parents with information and strategies for enhancing their child's early literacy skill development. The purpose of this study was to examine the effects of parent involvement on the early literacy skill development of young children.

Research Question

1. Do parent involvement interventions related to early literacy influence child early literacy outcomes?

Literature Review

Increasing research attention has been given to early literacy components, including print awareness (Whitehurst & Lonigan, 2001), phonological awareness (Lonigan, Burgess, & Anthony, 2000), using words as symbols (Tabors, Beals, & Weizman, 2001) vocabulary development (Senechal & Lefevre, 2001), and dialogic

reading (Whitehurst & Lonigan, 1998). Despite this governing body of research on early literacy, few studies have been done on relations between parent involvement and early literacy skill development of young children.

Topics covered in this literature review include (a) ecological theory; (b) cognitive development theory; (c) sociocultural theory; (d) teachers' knowledge and beliefs about early literacy; (e) teachers' perceptions of parents; (f) parents' knowledge and beliefs about early literacy; (g) parents' perceptions of teachers; and (h) intervention components such as print awareness, vocabulary, and dialogic reading.

Theoretical Framework

Ecological Theory. Bronfenbrenner (1979) discusses the importance of various contexts and the effects they have in child rearing. He makes two propositions about the conditions that must occur for a child to experience development. The first proposition centers on the primary context in which the child can observe and participate in activities under direct guidance of persons who possess knowledge and skills that are not yet obtained by the child. In the primary context a person with whom a positive emotional relationship is shared guides the child. The second proposition is focused on a secondary developmental context in which the child is presented with opportunity, resources, and encouragement to engage in activities the child participated in during the primary context. However, the child does not receive direct guidance from another person (Bronfenbrenner, 1979). The first context supports dyadic activity between the parent and child. For example, the parent can explain the meaning of a word to the child or point to a letter and say its sound. The parent can then shift to the secondary context by having the child demonstrate the early literacy skill they practiced together in the primary context, while encouraging the child throughout the activity.

In further development of theory from Bronfenbrenner (1979), he termed the primary and secondary developmental contexts as the microsystem. In the microsystem children have immediate contact with other persons such as their parents and teachers who have the opportunity to provide them with direct instruction and experiences. The microsystem also includes places the child spends the majority of their time such as their home, school, and neighborhood. The activities, roles, and relationships parents pursue will heavily affect their child's literacy development (Sonnenschein et al., 2000). The activities teachers use to engage children in the classroom comprise part of the surrounding environment and affect early literacy development.

The surrounding environment of the child can affect the opportunities they have for learning as well as the interactions they have with their parents. Bronfenbrenner (1979) looked at the context of a third party and the role of a third party in the development of children. This third party entering into the setting may support or undermine activities the child participates in, according to his third proposition. In a fourth proposition the development of a child in relation to a linkage of persons in prior contexts and settings can provide support through shared activities, communication, and information from one setting to the other (Bronfenbrenner, 1979). These linkages comprise the mesosystem.

It is at the level of the mesosystem that this research study of the effects parents and teachers play in early literacy development in young children will be examined. In this context parents have the opportunity to interact with the teacher from the child care center or preschool. Parents and teachers can discuss the expectations they have of the child as well as the teaching styles used when interacting with the child so both the parent and teacher can provide the child with consistency (NCEDL, 1999) and exchange information about the child. In the case of the current research project it was expected that the parent could teach the child

similar concepts and skills received from the instructor at the preschool or child care center.

Interactions between the family and day care are included as a part of the mesosystem model (Bronfenbrenner, 1986). In this model, child care professionals have the opportunity not only to have direct effects on children, but they also have the opportunity to impact the family. Working with children, child care professionals are able to influence the family processes (Bronfenbrenner, 1986). A similar model in the mesosystem looks at a joint effort between the family and the school. Bronfenbrenner (1986) conferred that children from homes with greater opportunity for communication had more independence and showed more initiative during the higher grades. School influences also showed to be effective especially for students who did not receive opportunities for communication at home.

Further development of the ecological theory places a heavy emphasis on the role of proximal processes and the environment on child development (Bronfenbrenner & Morris, 1998). Proximal processes are steady forms of reciprocal interaction in the immediate environment. This includes playing with a child, storybook reading, problem solving, or group activities. Bronfenbrenner and Morris (1998) include features that are necessary for an intervention to be effective according to this model. These features are (1) the person must engage in activity for development to occur; (2) the activity must take place on a regular basis over an extended period of time to be effective; (3) the activities must take place long enough for them to become more complex; (4) the proximal processes must include reciprocity; (5) proximal processes can include interactions with objects and symbols; and (6) moderating factors such as characteristics of the person, environment, and time can create changes in the content, timing, and effectiveness of proximal processes. Accordingly, it was expected in the current investigation from the perspective of the ecological model that early literacy skills in preschool children would be affected from dyadic interactions in proximal processes with parents and children.

Cognitive Development. Piaget (1959) focused on the development of cognition as a process of adaptation and proposed a stage theory of cognitive development. For purposes of this study, what is known about children from age two through seven during preoperations is highlighted.

Conceptualization is a large concern for Piaget. In the first level of preoperational thought, ages two through four, schemes that were learned in sensori-motor intelligence are not yet concepts because they are not in thought and only come to the surface when they are needed. However, conceptualization is more likely when operated in representation and language (Piaget, 1969). In other words, children will be better able to conceptualize what they learned in the sensori-motor intelligence period through language.

Preschool children are learning to communicate with others through language. Piaget (1959) asserts that children engage in collective monologues. A collective monologue occurs when the child makes two remarks together without a listener. Typically the child engages in conversation without expecting an answer from another individual. Collective monologues, occurring in ages three through five, anticipate future conversation with higher forms of conversation taking place around the age of five (Piaget, 1959). During the collective monologues speech is used as a stimulus for the child rather than a form of communication. The child is not trying to communicate thoughts; he/she is reinforcing their action. During this period the child is engaging in egocentric thought. The child will continue to make remarks but will receive answers from others by talking about themselves. This eventually leads to socialized language (Piaget, 1959).

Language, according to Piaget (1969), possesses its own logic. Children in the preoperational level can understand verbal expressions of a higher level than average when trained. However, these expressions are best understood when given in an order rather than used spontaneously. For example, Piaget (1969) performed an experiment looking at two groups of children at different ages. One group had an

understanding of conservation while the other group had not yet achieved that concept. The two groups of children were asked to describe two objects, one large and one small. The older group connected the two objects by saying this one is bigger than the other one. The younger children's descriptions were simple; this one is big, this one is small. When asked to give a description, the younger group described only one dimension at a time. In a further study, the younger group of children was given another task. They were asked to give integrative orders; such as "give this man a longer pencil" (p. 90). The younger children were able to complete the task following the expression given to them. This study demonstrates that children can use a higher level of verbal expressions than they would have on average achieved if they were trained to use the expressions.

When the expression is related to a concept, the child is better able to understand it and better prepared to use and understand the verbal expression in a spontaneous situation. Piaget believes that language is not a source of logic but is structured by logic (Piaget, 1969). The development of language begins with the sensori-motor level where schemes are used to develop and structure thought. Once operations are understood actions can be internalized and organized into structures. Piaget concludes that language is structured by logic.

Sociocultural. Piaget (1959) viewed egocentric speech as a practical activity that does not fulfill any realistically useful function in the child's behavior. He held that thought is autistic and becomes realistic only under sustained social pressure. Egocentricity in Piaget's theory is the link from autism to logic. On the other hand, Vygotsky (1962) gave more importance to egocentric thought than did Piaget. He views egocentric speech as an outcome of social and communicative encounters. Vygotsky (1962) looked at factors contributing to egocentric speech by modifying Piaget's original study examining egocentric speech in young children. In Piaget's experiment, children were provided with activities to perform while their egocentric speech was assessed. They were shown to make comments while they were working

that related to their performed activity. Vygotsky (1962) performed Piaget's experiment only with modifications; difficulties were added to the task. For example, a child would be provided with drawing materials but without all the needed colors. As the children came across these difficulties they would show more egocentric speech. They would express their difficulties in the task verbally to themselves. Another set of children was given the same activities to complete but with all their materials available to them. These children showed less egocentric speech than Piaget had noted when he performed his original experiment.

Vygotsky (1962) believes that the primary function of speech stems from communication. In other words, the early forms of speech are social. From this point of view, the next level of speech, egocentric speech, is communicative and social. When a situation arises that causes the child to stop and think egocentric speech occurs. This demonstrates the social effect on egocentric speech. The environment and situations that arise cause the child to adapt.

Egocentric speech serves as a link, which later leads to inner speech (thought). Vygotsky (1962) proposed that speech begins in a social pattern with a shift to egocentric speech and finally to inner speech. The primitive form of speech is influenced from the social environment. Similar to Piaget, Vygotsky observed the following sequence: nonverbal autistic thought to egocentric thought to socialized speech and logical thinking. According to Vygotsky, thought stems from speech, which stems from social influence.

Vygotsky (1962) observed that speech develops in four stages. The first stage is the primitive stage, where operations are in their original form. The second stage is where the child experiences their own body as well as the environment surrounding them. In the third stage, external signs and operations influence speech. During the fourth and final stage, the "ingrowth" stage, speech becomes soundless. These stages demonstrate that thought development is determined by language and

the development of language is influenced by outside social factors. Therefore, the intellectual thought of a child is dependent upon obtaining language.

Meaningful speech is a union of word and thought (Vygotsky, 1962). In order for thought and language to develop it is important for a child to understand the meaning of a word. The associations between words and meanings can grow stronger or weaker as experience changes. For example, a word might be associated with a particular object, but later becomes associated with another object. The relation between thought and word is a process that undergoes changes. Thought is not expressed in words, but rather, thought is developed from words. Speech and thought are developed in the same process of moving from part to whole. For instance, a child begins with one word, then connects a word with another word, and finally connects words to form a complete sentence. Thought, on the other hand, undergoes changes and finds reality and form from speech. Throughout his theory Vygotsky (1962) emphasized that speech and thought are influenced by the social situations that a child encounters.

Together, Piaget and Vygotsky provided information of preschool children's language development. Piaget showed the importance of logic and concepts in language development for young children. This study extended that importance by providing children with materials and books that demonstrate expressions of logic such as classification. On the other hand, Vygotsky showed the importance of social factors on preschool children's language development, which demonstrates support for providing parents and children with early literacy materials creating a social environment with print.

Teachers' Knowledge and Beliefs about Early Literacy

The National Center for Education Statistics (2002) reported that 72% of children spend time in center-based care prior to starting kindergarten. With most of today's children attending a child care center during a time that they are developing

early literacy skills, it is important for centers to have qualified staff. Teachers play a key role in enhancing early literacy skills. However, the knowledge level and beliefs of early literacy among teachers is widely unknown. In order for any type of teacher intervention program to take place, it is important that the knowledge and beliefs that teachers possess about young children and their early literacy development be identified.

A key factor involved with early literacy among preschoolers is teacher attention. Inattention by teachers can have a large effect in the preschoolers' lack of print information (Lonigan, Bloomfield, & Anthony, 1999). Lonigan and colleagues (1999) demonstrated that children from middle income families attending a child care center with an emphasis on play activities had more opportunities to use their cognitive abilities than the Head Start center. The child care center had more structure and the children engaged in activities such as identifying specific letters and objects. The Head Start children, on the other hand, moved more independently among the activities and did not receive a sufficient amount of teacher attention. The researchers concluded that development of literacy skills among preschool children might be at risk if they do not receive an adequate amount of attention focused on developing their emergent literacy skills (Lonigan, Bloomfield, & Anthony, 1999).

In the Home-School study, Smith (2001) looked at teacher's beliefs about what is important for children to learn during the preschool years and the role they should play in early literacy development. The teachers viewed social aspects of preschool, such as learning to share and getting along with others, as the highest priority. When questions were asked about the role they should play on pre-academic skill development, they responded saying that it was not their job or responsibility. While there were some teachers who viewed helping children learn pre-academic skills at the same level as helping them learn to function socially, the majority of teachers responded to parents saying that it is not part of their goals in the classroom to help the child learn academic skills and be ready for formal schooling (Smith,

2001). These studies demonstrate the important role teacher's play in creating an early literacy environment for preschool children. They also show that not all teachers feel it is their responsibility to create a learning environment for preschool children. Therefore, parents can make an impact on their child's early literacy skill development by participating in early literacy activities with their child.

Teachers' Perceptions of Parents

Kontos (1984) studied the perceptions of early childhood staff on parents of children enrolled in a child care center with a four-part questionnaire. The questionnaire included items concerned with negative aspects of parenting, positive aspects of parenting, and parent involvement in the child care setting. Early childhood staff was found to have negative attitudes towards the childrearing abilities of parents of children enrolled in the center. However, the staff also showed negative attitudes towards all parents. Interestingly, staff positively evaluated their own parenting and coincided with other staff sharing negative attitudes towards parents in general (Kontos, 1984).

A subsequent study by Kontos and Wells (1986) examined the attitudes caregivers have towards parents of children enrolled in the center. The researchers had the center staff place parents in a low-esteem group or a high-esteem group. The parent groups were then contacted and asked to participate in the study. Results showed the low-esteem group as less likely to know about reading materials available, less likely to request childrearing advice and seldom to take the time to read newsletters about center events or discuss needs of their children. In general, the low group did not place a high emphasis on interaction with center staff and, though they reported that they were satisfied with the center, they were not "very satisfied" as the high group reported. The relationships the staff had with the parents were based on communication differences between the two groups. The high-esteem group tended

to have more personal relationships with the staff while communication patterns of the low-esteem group were mostly role-oriented (Kontos & Wells, 1986).

These studies demonstrate a need to connect teachers and parents to enhance the development of preschool children. Through various activities the combination of established connections between the child-teacher, parent-teacher, and teacher-child can serve as support to the development of early literacy skills in a child more so than any single established connection (NCEDL, 1999). It can be assumed that providing teachers with activities from the intervention that can be implemented in the classroom and distributed to parents will affect the child-teacher, parent-teacher, and teacher-child connection.

Parents' Knowledge and Beliefs about Early Literacy

A key influence contributing to the development of literacy skills in young children are parents. Parents have the ability to provide young children with direction and consistency to support the development of early literacy skills. While a number of parents spend a great deal of time preparing their young child for literacy acquisition, a large number of parents do not feel that they have the capacity to teach their child literacy skills. Some reasons for a lack of literacy instruction from parents to their young child include: a low maternal education level (Goelman, 1988), fear that their child will become more knowledgeable than the parent, and belief that literacy development is not important in the home environment (Anderson, Cronin, & Fagan, 1998).

When Anderson and colleagues (1998) initiated their family literacy program with working class families, they learned that differing values of parents affected the impact of the children's literacy learning. While parents realized the importance of providing a "literacy rich environment" for their children, other factors inhibited the promotion of that environment in the home. For instance, the parents were concerned about the mess of the activities and would tidy things up so that literacy tools were put

in places, such as an attic, where they were unreachable to children. Another concern brought up by the parents in the program was related to gender. Through their journal writing in the study, parents expressed the disapproval they received from others when using literacy activities that they did not feel were appropriate for the child's gender development. A third concern was time. With the number of dual career families increasing, and both the father and mother entering the workforce, there are fewer opportunities to share literacy learning with the child (Anderson, Cronin, & Fagan, 1998). We can learn from this research study that it is essential to know the constraints and concerns of parents prior to beginning a family literacy program or intervention.

The beliefs and knowledge parents have about literacy can influence the child's home environment (Sonnenschein et al., 2000). For example, if the parents view reading as enjoyable, they will most likely read more frequently and the child will have a greater desire to engage in reading activity. Parents who start reading to children early can evoke an interest in the child towards listening to stories and later reading (Bus, 2001).

Preschool children's literacy development is influenced by their parents' beliefs and attitudes towards learning and school activities (Sonnenschein, Baker, Serpell, & Schmidt, 2000). Lynch (2002) investigated the relationship among parents' reading beliefs and their gender and children's self-perceptions of themselves as readers. The researcher wanted to know if parents' beliefs in their own ability could improve children's reading achievement. A questionnaire was given to parents that measured their self-efficacy beliefs of being able to improve their children's reading achievement. The results showed a positive relationship between mothers' self-efficacy beliefs and children's self concept. When children had a higher self concept they had a stronger perception of their own reading ability. Therefore, mothers who have stronger self-efficacy belief that they can improve their child's reading ability can

impact their child's reading achievement by providing their child with a stronger self-concept.

A study examining parents' perspectives of early literacy showed that families coming from a low-income background had few children that participated in print-related activities, and those that did participate in activities were usually more structured, involving flashcards and reciting the alphabet (Metsala, 1996). Children from middle-income families, however, participated in activities that showed literacy as a source of entertainment. These activities included joint storybook reading and independent interactions with print. The study showed parents holding a view of literacy that is related to the experiences they provide their child (Metsala, 1996). This means parents of low income backgrounds view literacy development as a task, whereas parents with a middle-income background view literacy development as entertainment.

It has been demonstrated that an early reading intervention program with the participation of parents in their child's reading can stimulate early learning skills in children (Parker, Boak, Griffin, Ripple, & Peay, 1999). Parents play the role of a mediator of various relationships the child has, most importantly the school-family relationship (NCEDL, 1999). To increase attendance in a parent program, Neuman (1998) suggests aiming the program towards parents while making it seem that it is for the child. While the outcome is for the children's growth and development in early literacy, the program is ultimately targeted for the parents and guardians to strengthen their knowledge and skills of their child's early literacy development.

The above studies provide us with the knowledge that parents can heavily influence their preschool child's literacy development through the environment they create for their child, their self-efficacy beliefs, and their attitudes towards literacy as entertainment. This study sought to enhance the home environment by providing print activities such as storybooks and activities as part of the intervention. In addition, parents received newsletters that encouraged them to take playtime as a learning

opportunity for their child so they will be able to see literacy as entertainment. When parents participate in activities with their child they have a better understanding of their child's literacy development and therefore maintain a supporting role in that development (Lauren & Allen, 1999). However, a strong connection between parents and teachers can serve as reinforcement to the parents' self-efficacy beliefs.

Parents' Perceptions of Teachers

While parents need to know what teachers expect from them and their children, teachers should also take into account the expectations parents have of their children (Carlton & Winsler, 1999). Through exploring expectations of the parent and teacher, stronger ties can be created with open lines of communication. Wang (2000) states, "The family literacy environment and parental support are the initial steps for children to learn reading." Parents often read and share stories with their children in a positive way (Wang, 2000). Through reading books that are fun and sharing stories with meaning, children can find encouragement to enjoy reading.

Patrikakou and Weissberg (2000) looked at parents' perceptions of teacher outreach, parent involvement in their child's school, and parent involvement at home. The results showed the most predictive variable gaining parent involvement was teacher outreach. Parents who perceived their child's teacher as working in a partnership with parents through keeping them informed and giving parents important information to help their child learn were more involved in their child's school activities. The study also showed parent perceptions as having a larger influence on their involvement than socioeconomic status or race (Patrikakou & Weissberg, 2000).

Through the collaboration of preschool teachers and parents, children can receive adequate preparation for developing early literacy skills. Suggestions for a parent-teacher connection include: arranging time for parents to meet with the preschool teacher to discuss expectations and needs, organizing an informal dinner with parents and teachers for further discussion of expectations for preschool

children, placing children with a teacher who previously taught a family member to enhance a pre-existing parent-teacher bond, and encouraging families to take part in family literacy activities at home (NCEDL, 1999). Patrikakou and Weissberg (2000) suggest that teachers communicate with parents using the best way they can be reached, through phone calls, notes, and a home-school journal.

Intervention Components

Early literacy is an important component for children and should be included in their home environment. In a study performed by the National Reading Research Center (Metsala, 1996), middle-income families were shown to engage their children in more activities that illustrated literacy as entertainment. Low-income families, however, engaged in few print related activities, and when they did participate in literacy activities, they were more structured, such as using flashcards and teaching how to spell with paper and pencils. In the current study parents were provided with information and activities they can participate in with their children that will promote parent-child interaction and show literacy as a source of entertainment.

An early literacy intervention in which parents are provided with information and resources to interact with their child can give researchers an opportunity to examine a child outcome in relation to the intervention. This study introduced the following early literacy components to parents through storybooks and activities that were sent home: print awareness, recognizing words as symbols, vocabulary, and dialogic reading. Rush (1999) looked at the behaviors of young children enrolled in Head Start centers in the context of their home. She found that the majority of these children did not have structured activities and instead spent a majority of their time watching television, wandering from activity to activity, or engaging in non-interactive play. For more than half of the observation time, the children were in unstructured activities while the caregiver was present. Children who were engaged with caregivers in

structured play and activities tended to score higher on literacy and vocabulary measures (Rush, 1999).

An effective program, developed by Neuman (1996), involved a weekly get together of parents in a child care center where they gathered information about their child's reading and engaged in reading children's books. This program, known as the Book Club to the parents involved, allowed parents to have a time set aside each week during which they could go to the school and participate in parent activities facilitated by the literacy specialist. These activities involved the parents sharing in a story time at which they could read and be read to by the facilitator. Once the children's storybook was read, the facilitator would engage the parents in a discussion of the story, usually involving questions about what they want their child to gain from the book, what techniques they would use to stimulate discussion between themselves and their child, and how they could help their child re-examine the book once it has been placed down. Following the discussion, parents went to the early childhood classroom to meet with their child and spend time reading the new book together (Neuman, 1996). With the knowledge the parents gained from the facilitated discussion, they were able to take that new knowledge and apply it to their home environment, enhancing the child's development in the home. Neuman's article demonstrates the importance of teachers and parents having parallel knowledge of ways to enhance reading skills in young children.

Print Awareness. Early literacy skills include an awareness of print and sensitivity to the sounds of language (Sonnenschein & Munsterman, 2002). Anthony and colleagues (2002) assessed print knowledge in preschool children using several measures. The measures included a letter-name knowledge task, a letter-sound knowledge task, concepts about print measure that assessed the direction of print, and an environmental print measure that asked the child to indicate what a picture, such as a stop sign, said. The results indicated that print knowledge was associated with phonological sensitivity in preschool children. Phonological sensitivity refers to

any type of skill associated with linguistics (rhymes, phonemes, words, and syllables). The strongest correlation of print knowledge for four year olds was environmental print and its association with phonological sensitivity. For five year olds, phonological sensitivity was most highly correlated with results from the letter-name knowledge measure (Anthony et al., 2002).

Sonnenschein and Munsterman (2002) examined orientation towards print through storybook reading interactions in preschool children. Parent-child dyads were videotaped reading a story while researchers characterized their interactions. Parents were then asked how frequently their child read books. In addition, children were taped participating in emergent literacy assessments that included orientation towards print measures. The print measures included were word recognition in environmental context, letter recognition, knowledge of functions of print, and concepts about print. The results showed that children who were read to frequently had a higher orientation towards print. Positive correlations were also shown between orientation towards print and affective quality (Sonnenschein & Munsterman, 2002).

Vocabulary. Preschool children develop two types of vocabulary, receptive and expressive. Receptive vocabulary is children's comprehension of spoken words. These are words such as *baby*, *fishing*, and *old*. Expressive vocabulary is being able to produce these words (Senechal & Lefevre, 2001). Senechal and Lefevre (2001) looked at research studies involving vocabulary development in young children. They suggest that adults read to their child while encouraging the child to label pictures and give examples of other situations where that word could be used. Reading a book more than once will also increase the acquisition of new words in young children.

To understand the meaning of a word, children do not actually have to be able to read. Instead, they can be familiar with different words and letters. Word learning begins with affective development (Bloom, 1998). Children begin sharing emotional expressions with caregivers and then place words to those emotional expressions. From there, vocabulary expands to show relationships between objects.

This includes words that pertain to roles, relationships, actions, or events. Finally, there is a dramatic increase in the capacity of a preschool child to learn words making it an opportune time to provide preschool children with an intervention that includes activities to increase their vocabulary.

Children in the preschool years are able to communicate with family members, teachers, and peers. They frequently use common, every-day words because they are better able to understand them. However, children also need to learn rare words. Tabors, Beals, & Wizman (2001) define rare words as new words for preschool children that might be used in conversations with family members or other social settings. These rare words are low-frequency words such as *volcano* or *stegosaurus*, whereas high frequency words are *go*, *play*, or *think*. Support for learning rare words can occur in toy play, book reading, and meal times (Tabors et al., 2001).

During book reading referring to an illustration in the book can enhance vocabulary, giving a definition or a synonym, using inference or comparison, and using the child's experience (Tabors et al., 2001). Parents can introduce rare words in mealtime in ways that are informative. In other words, they can understand the meaning of the words for future use. However, if rare words are used during mealtime and there is no effort to explain the meaning of the word these words are considered uninformative. The child does not have an understanding of the word for future use (Tabors et al., 2001). Tabors et al. (2001) support the notion that learning new words in an informative way can take place with contextual support. Contextual support for learning new words consists of physical context (contact with an object or an action in the environment), prior knowledge (recalling past experiences), social context (social norms or violations of norms), and semantic support (giving verbal information about a new word).

Dialogic Reading. Crain-Thoreson, Dahlin, and Powell (2001) reviewed studies on the effects of storybook reading on young children. They summarized that an interactive style of reading by parents and adults can benefit children's vocabulary

development. Whitehurst and Lonigan (1998) refer to this interactive style during story reading as “dialogic reading.” In dialogic reading the child responds to the book through questions that are asked by the adult. The adult takes the role of a listener and encourages the child through repetition and further questions about the story. Senechal and LeFevre (2001) suggest that parents encourage their child to label pictures, read a book two or more times, and encourage their child to participate during reading.

In an intervention promoting dialogic reading in the school and home, preschool children were engaged in picture book reading from teachers and parents (Whitehurst, Arnold, Epstein, Angell, Smith, & Fischel, 1994). In the study, children were randomly assigned one of three conditions. This included receiving dialogic reading at the home and school, only at the school, and a control condition where children were engaged in play activities while the other children participated in dialogic reading. The results showed that both parents and teachers could enhance language development of low income preschoolers in six weeks, the length of the intervention (Whitehurst et al., 1994). The children who performed in the school plus home condition performed better than children who received dialogic reading only in the school and children from the control group. Parents and teachers of the study received training from a two-part videotape of dialogic reading instruction (Whitehurst et al, 1994). The current study looked at dialogic reading in the home through parent interaction with the child. Parents were trained through an instruction sheet that was distributed with the storybooks. The instructions for dialogic reading also contained suggested questions to engage interaction with their child in the storybook.

In a five-year longitudinal study by Senechal and Lefevre (2001), the home experience of preschool children was shown to have a relationship to early literacy skill development. Children who were read to at a high rate with low teaching scored higher at the end of the study. Children who received high teaching but low reading had lower scores at the end of the study. Crain-Thoreson, Dahlin, and Powell (2001)

looked at the contexts of language and book reading from parents in the home environment. Specifically, they looked at children's use of different words when parents used an elaborative style of reading versus a repetitive style of reading. When the parents used an elaborative style of reading and engaged the child in conversation about the text, the child was more likely to use different words. Furthermore, parents who exposed their child to more refined language in a play context were able to have a larger effect on their child's vocabulary development (Crain-Thoreson et al., 2001).

During a study called the Home-School study, DeTemple (2001) found that parents who read to their child while asking minimal questions during reading and pausing infrequently had children who did not talk very much. To the contrary, parents who paused frequently during the story had children who asked more questions, talked more, and engaged in conversation. The Home-School study revealed a consistency of style in parent reading. It was shown that parents who talked frequently while reading one story tended to talk frequently during the next story. Parents who said very little during one story said very little during the next story read. This consistent pattern, however, was not shown in the parents when a non-narrative book was being used (DeTemple, 2001).

Literature Summary

During the ages of four and five, children are gaining early literacy skills. The above literature shows the importance of examining a child outcome in relation to an early literacy intervention with parents. Vygotsky (1962) placed emphasis on the social environment and its impact on the child. Bronfenbrenner (1979) demonstrated the links between the various contexts of the environment and their relation to a child. Piaget (1969) gave a foundation for studying language in young children and expressed the importance of logic and training young children to use expressions. This theoretical support provided a basis for conducting an early literacy intervention.

A parent and teacher connection can provide a young child with support for learning (NCEDL, 2000). Providing materials to the center for distribution to parents by the teacher gives an opportunity for parents and teachers to interact. The perceptions parents have of their role in their child's learning should be assessed for further development of parent education programs. In addition, it is important to provide information and knowledge of early literacy development to parents and teachers to improve child outcome. Through implementing an intervention strategy that includes print awareness, vocabulary development, and dialogic reading, children may be better prepared to enter school and succeed.

Research Methods

The purpose of this study was to examine the effects of parent involvement in their child's early literacy development. This intervention study provided parents of preschool children with early literacy knowledge to enhance their child's early literacy skill development through parent-child interactions including: dialogic reading, vocabulary development, and print awareness. This intervention took place in three select child care centers in the Central Panhandle of Florida. In addition, two comparison centers were used to measure the effectiveness of the intervention.

The following process was used to perform the study: (a) selection of sample, (b) procedures, (c) pre- and post-assessments, (d) collection of data, and (e) analysis of data.

Sample Description

Sixty-seven children from five participating child care centers were included in this study. The centers were selected by convenience and affiliation (faith-based, subsidized, and for-profit). From the five participating centers, three received an early literacy intervention and two centers served as comparison. Intervention Center One had 19 children and was chosen because it offered government subsidized care. Intervention Center Two had 12 children and was also chosen because of its government-subsidized care. Intervention Center Three had 10 children and was chosen for its faith-based affiliation. Comparison Center One had 18 children and was

chosen because of its faith-based affiliation. Comparison Center Two had eight children and was chosen because it offered subsidized care.

Of all the participating children, 33 were males and 34 were females. Race characteristics included 37 white children (55%), 23 black children (34.3%), and 7 children classified as other (10.4%). Subjects ranged from 45 to 67 months with a mean age of 57 months.

Procedure

One week prior to the intervention, a pre-test was given to the participating children. Four- and five-year old children from the centers participated in the study through the pre-test, the eight-week intervention, and the post-test. The pre-test for children consisted of the Peabody Picture Vocabulary Test (Dunn & Dunn, 1981), the Boehm Test of Basic Concepts for Preschoolers (Boehm, 2001), the Print Awareness Subtest from the Preschool Comprehensive Test of Phonological and Print Processing (Pre-CTOPPP) (Lonigan et al., 2002), and the Receptive Vocabulary subtest from the Pre-CTOPPP (Lonigan et al, 2002). Parents also participated by completing the intervention activities with their child.

Parents received intervention materials that provided them with information about their child's development in regards to early literacy. These materials included worksheets that were sent home addressing print awareness, storybooks to encourage dialogic reading, vocabulary activities, and a newsletter informing parents of components of early literacy development. The worksheets, vocabulary activities, and storybooks were for the parents to complete with their child together and the newsletters were for the parents to read on their own time. On a designated day each week, the parents received a new set of worksheets or books that include early literacy activities for them to complete with their child. A pre-test and a post-test were given to each child to assess the impact of the intervention.

Information was distributed in the form of four newsletters provided to parents to give them knowledge about their child's early literacy development. The newsletters were sent to the home on a bi-weekly basis. In addition to addressing components of early literacy, parents gained information about their child's activities in the classroom through a description of the activities provided in the newsletter.

Measures

Peabody Picture Vocabulary Test. The Peabody Picture Vocabulary Test (PPVT) (Dunn & Dunn, 1981) examines receptive vocabulary in a child. This test establishes a basal line, which is where the child's vocabulary understanding begins, and extends to the ceiling, which is the highest level of receptive vocabulary knowledge attained thus far. Scores for the PPVT are obtained by subtracting the errors from the total ceiling score. A sample of 1,849 individuals participated in a study examining the reliability and validity of the PPVT. The median reliability coefficient for Form L of the PPVT was .81. The median validity coefficient of the PPVT was .70. This test is the preferred assessment of looking at language and vocabulary in young children (Purcell-Gates, 2001). Children from the intervention and comparison centers received the PPVT as a part of the pre- and post-assessments.

Boehm Test of Basic Concepts- Preschoolers. The Boehm Test of Basic Concepts for Preschoolers (Boehm, 2001) measures basic relational concepts in preschool children. The basic concepts measured include position, size, direction, and classification. This is a 52-item assessment that is given to the child in one session of approximately 20 minutes. Scores for the Boehm are obtained by adding the number of correct responses to each test item. To measure reliability and validity, 98 children were administered the Boehm-3 Preschool twice in intervals from 2 to 21 days. Test-retest reliability for the Boehm Test was calculated with the Pearson correlation coefficients. Reliability ranged from .90 to .94. Validity was also measured

using the Pearson correlation coefficients. A sample of 59 children were administered the Boehm-3 Preschool in intervals of 2 to 21 day with a validity score of .84. Children from the intervention and comparison centers received the Boehm Test of Basic Concepts for Preschoolers (Boehm, 2001).

Print Awareness Subtest. The print awareness subtest (Lonigan et al., 2002) measures print concepts, letter discrimination, word discrimination, letter-name identification, and letter-sound identification. This is a 36-item test that is given to the child in one session. If the child provides the correct response to the question, they are given a point and if they do not provide the correct response the child does not receive a point for the question. The correct responses are added up to reach the score attained for the child. Statistics on the Print Awareness subtest include a mean score of 19.71 with a standard deviation of 9.80 for four-year-olds and a mean score of 23.61 with a standard deviation of 9.93 for five-year-olds.

Receptive Vocabulary Subtest. The receptive vocabulary subtest from the Pre-CTOPPP (Lonigan et al., 2002) measures children's knowledge of words. The child is shown a page with pictures on it and then asked to point to the picture of the word given. A total of 40 words are included in the assessment. These are words children will most likely encounter during reading instruction. The receptive vocabulary subtest is given in one session of approximately 10-15 minutes. For each correct response, a point is given. The points are added up to equal the score the child obtained on the measure.

Data Collection

In order to prepare for data collection, an informed consent form was sent home to parents prior to the pre-test informing them of the research that would take place in their child's classroom and asking for their participation. Parents were then asked to sign the informed consent to participate in the study.

For children, the scores of the pre-test were collected after the PPVT (Dunn & Dunn, 1981), the Boehm Test of Basic Concepts for Preschoolers (Boehm, 2001), the Print Awareness Test (Lonigan et al., 2002), and the Receptive Vocabulary Test (Lonigan et al., 2002) were given to the children in the four-year-old classes in the three intervention centers and two comparison centers. The pre-test was given prior to the start of the intervention implementation. One week after completion of the intervention, the PPVT, the Boehm, the Print Awareness Test, and the Receptive Vocabulary Test were given as a post-test to determine if there were any differences in scores from the pre-test.

Data Analysis

The means and standard deviation scores are presented for variables of interest in this study for pre-test scores and post-test scores across centers. A power analysis was used to look at the effect size to allow for accurate and reliable statistical judgments.

Differences in pretest scores of center groups were analyzed by a one-way analysis of variance (ANOVA). To examine the intervention effects, repeated measures of analyses of covariance (ANCOVA) were used where age was the covariate at pretest and comparisons made across centers from time 1 to time 2.

Findings

The effects of parent involvement on the early literacy skill development of young children were examined. Forty-one children and their parents were selected from three child care centers and asked to participate in an eight-week early literacy intervention. Participants completed a series of measures of early literacy prior to interventions with parents and then again after the interventions with parents. In addition, 26 children were selected from two child care centers to serve as a comparison group by completing the pre- and post-tests eight weeks apart.

Children's responses to the pre- and post-tests from all participating centers were analyzed by using version 11.0 of the statistical package for social sciences (SPSS). Statistical tests were determined by using an alpha level of .05 or better. This chapter is divided into two parts (a) analyses of pre-test scores and (b) analyses of post-test scores.

Pre-test Comparisons. Table 1 presents means and standard deviations for pre-test and post-test scores for all four measures of language. An ANOVA was performed on the pre-test scores to test for any significant difference between center groups. These analyses indicated that the center groups did not differ on pre-test variables (see tables for results). Therefore, the three intervention centers were placed in the intervention group and the two comparison centers were placed in the comparison group.

Posttest Comparisons. Means and standard deviations for posttest scores on measures of language are presented in Table 1. To assess the effectiveness of the early literacy intervention, a repeated measure of ANCOVA was performed. Figures 1-4 show pre- and post-test mean scores for intervention and comparison groups across all four measures of language.

Analysis of the Boehm measure yielded a significant effect of assessment (pre-test to post-test), [F (1, 50) =90.747, p=.000]. However, when examining variables of group and age, there were no significant differences. A significant effect of assessment was found for the PPVT-R [F (1, 49) = 49.701, p=.000] Again, there were no significant differences when examining age and group.

The Print Awareness measure yielded a significant effect of assessment [F (1, 54) = 128.532, p=.000]. There were no significant differences found for age. However, when the group was examined, a significant difference was found [F (1, 54) =8.322, p=.006] indicating that the mean scores of the intervention group increased from the pretest to the post-test greater than the comparison group.

Finally, an ANCOVA was performed on the receptive vocabulary post-test. Significant differences were found from the pre-test to the post-test, [F (1, 54) =44.421, p=.000], but not when factoring in age. When factoring group, significant differences were achieved, [F (1, 54) =4.020, p=.05]. Upon further examination of the mean scores, it was suggested that this difference was due to a change in scores among the intervention group.

Summary. Significant scores from pre- to post-test were found for all four language measures, but the only group differences were found for the print awareness post-test and the receptive vocabulary post-test. On the Print Awareness test and the Receptive Vocabulary test, the comparison group yielded less change from pre-test to post-test than did the intervention group.

Table 1

Means and Standard Deviations for pre-test and post-test standard scores on the language measures

Language Measures		Pre-tests		Post-tests	
		Intervention	Comparison	Intervention	Comparison
Boehm	Mean	36.16	38.73	42.06	41.48
	(SD)	(9.873)	(8.390)	(7.365)	(6.274)
PPVT-R	Mean	88.97	84.64	90.79	85.62
	(SD)	(17.326)	(16.425)	(17.246)	(21.885)
Print Awareness	Mean	18.51	13.17	21.69	13.87
	(SD)	(8.813)	(8.406)	(8.838)	(8.142)
Receptive Vocabulary	Mean	30.15	29.79	33.67	31.88
	(SD)	(5.107)	(4.881)	(3.381)	(4.619)

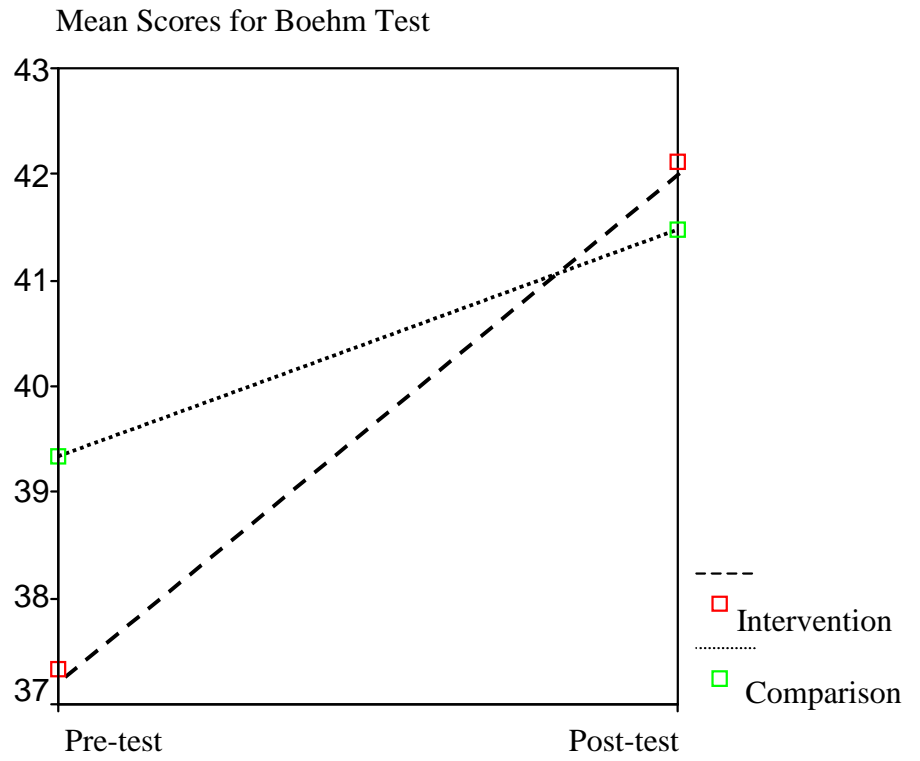


Figure 1

Mean Scores for PPVT-R

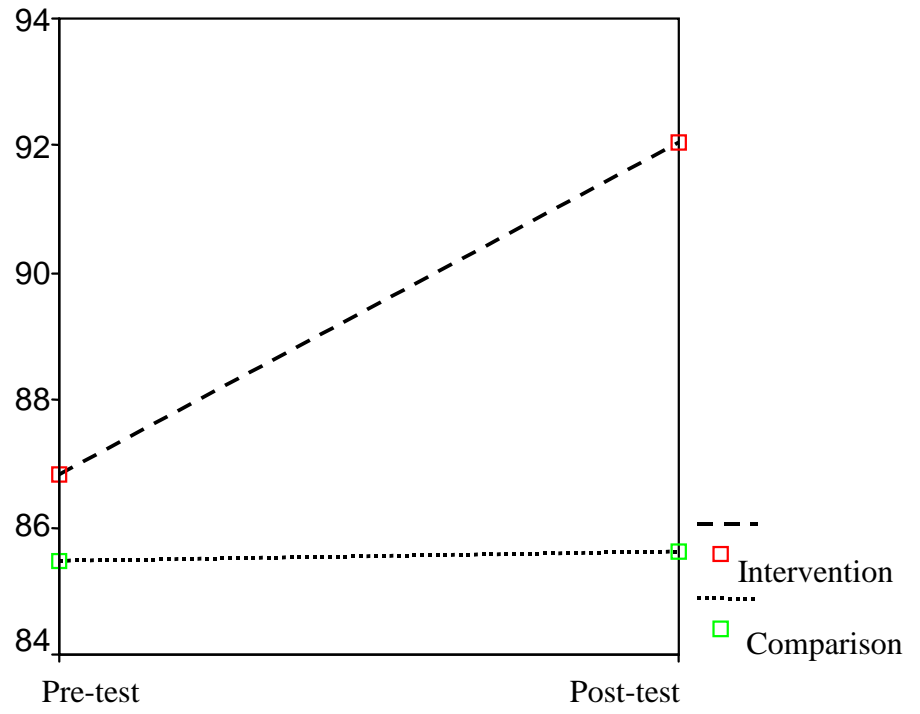


Figure 2

Mean Scores for the Print Awareness

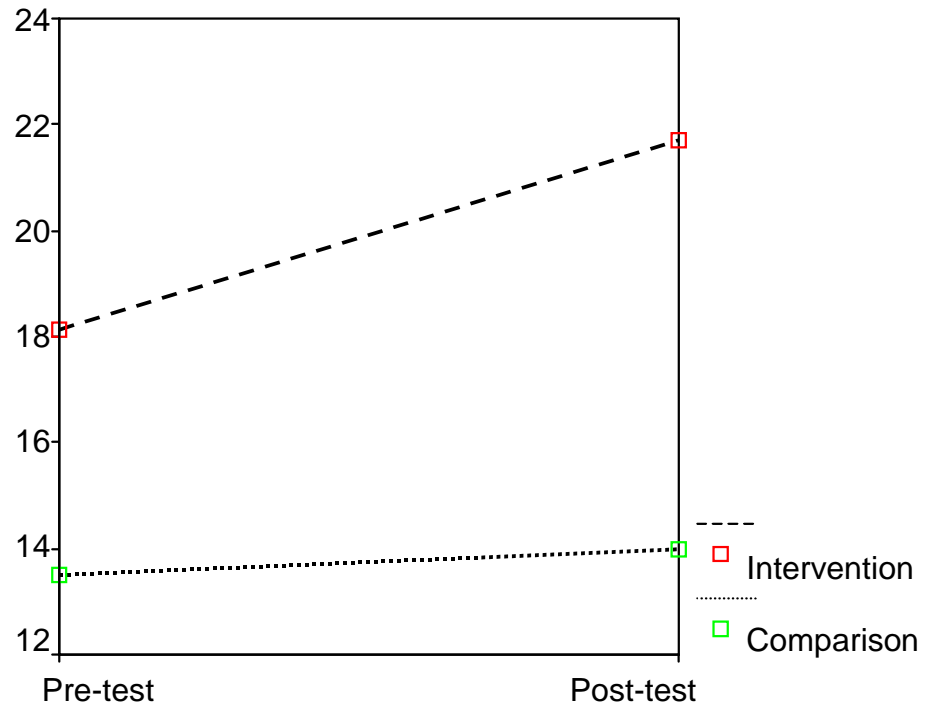


Figure 3

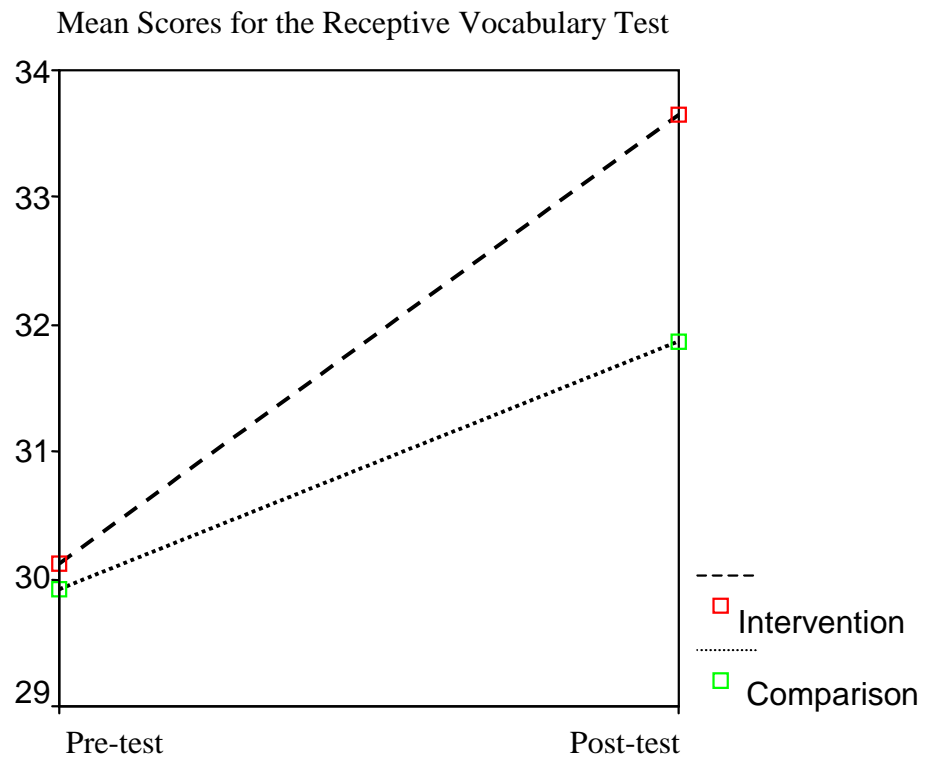


Figure 4

Conclusion

Results from the statistical analyses showed that an early literacy intervention can be effective in increasing young children's print knowledge. However, it does not support an increase in basic concepts in young children. With vocabulary, one measure was supported while another measure did not show a significant difference in scores among groups. This could be due to differences in the vocabulary assessments. The PPVT-R measures vocabulary development while the Receptive Vocabulary test measure vocabulary knowledge achieved in reading instruction. The Receptive Vocabulary test allows for more sensitivity of vocabulary. The test includes 40 words and their pictures for the child to match. The PPVT-R, however, does not provide a wide range of vocabulary words to assess the child's vocabulary knowledge.

Word learning has been linked to child experience and cognitive development (Bloom, 1998). Word learning in child experience can occur through experiencing an emotion and expressing feelings about objects, events, and persons. Cognitive development impacts word learning by what the child knows about the world, the process and structures of thought of a child, and the child's intentional states.

According to Piaget (1969), language is a notation for a system of cognitive instruments including classifications and relationships. Language can distinguish different levels and contents of an object as well as the relationships between objects. The current study did not show a similar effect. There were no significant differences in the Boehm test

scores, which measures basic relational concepts, among groups. One reason there were no significant differences in group scores for the Boehm and the PPVT-R could be due to symbolic function. Symbolic function is where children use a mental symbol, such as a word, to represent something (Feldman, 2001). The words included in the assessments may not have been words the child has used to represent something. Therefore, the child would not have been able to provide the correct response.

Learning language is social because it is learned from others (Bloom, 1998). Parents are a social influence in young children because of the amount time they spend around their child. Following Vygotsky's theory (1962), parents have the opportunity to increase their child's skill ability through the zone of proximal development. The zone of proximal development occurs when a parent assists their child until the child is able to achieve the skill on their own. For example, a parent could take the letter cards provided from the intervention and go through each letter with their child, saying the letter on the card with their child until eventually the child can do it on their own. Vygotsky (1962) further emphasized that the surrounding environment can affect their development. A component of the intervention included sending two books to the home and worksheets with the books that promote dialogic reading. These books, along with the letter cards, may have affected the child's surrounding environment by providing access to print in the home. In addition, parents may have participated in the child's zone of proximal development through assisting the child with the early literacy activities.

The results from this study showed support for providing an intervention in the primary dyadic activity context, namely the parent-child relationship. Through this context, young children learn best. Bronfenbrenner (1979) made two propositions within the microsystem. In the first proposition someone who shares a positive emotional relationship with the child, such as a parent, guides the child in an activity. The second proposition allows for the child to continue with an activity, however, without direct guidance. Following Bronfenbrenner's theory, parents involved in the early literacy intervention would have participated in the activities and provided direct guidance to the child. Next, the child would have continued the activity without

the direct guidance received earlier. However, the child would still have access to the same resources and receive encouragement from the parent. Therefore, parents most likely provided their child with direct guidance on the print activities and then followed that guidance with encouragement to the child.

Conventions of print include the direction of reading, the differences between the covers and pages of a book, the difference between pictures and words, and the meanings of punctuations and space on a page (Whitehurst & Lonigan, 1998). Knowledge of letters is to know the names of letters from print (Whitehurst & Lonigan, 1998). Together, conventions of print and knowledge of letters are part of print awareness. As a part of the intervention, sets of cards with a letter written on each card were sent home during week six of the intervention. This was after the pre-test of the print awareness test was given to each child. During weeks seven and eight of the intervention, two books were sent home. The letter cards and books included instructions to parents on showing their child conventions of print and teaching their child letters.

The print awareness post-test scores yielded a significant difference between the comparison group and the intervention group. Post-test scores in the intervention group increased while post-test scores in the comparison group were similar to the pre-test scores. Thus, we can conclude that the intervention was effective in increasing print awareness in young children. In addition, a power analysis was performed with a result of .809 showing high probability that these results would occur with a similar outcome if the same intervention was given. However, another possible reason for the change may be related to change in the classroom curriculum or more direct instruction from the teacher.

The lack of significance from the PPVT-R vocabulary assessment may be due to growth in vocabulary among all preschool children. During the preschool years children learn new words through a process called fast mapping. Fast mapping is when a new word is associated with their meaning after encountering it briefly (Feldman, 2001). Through fast mapping, children learn a new word every two and a half hours. Therefore, an early literacy

intervention with vocabulary may not be effective because all children are increasing their vocabulary knowledge at this age.

Another reason there may not have been any significant differences in the intervention group for the PPVT was the effect size. A power analysis was performed on the PPVT and yielded a power of .312. Therefore, the right effect size may not have been achieved in centers for testing differences and effect for the intervention on post-test scores.

The effect size for the receptive vocabulary test yielded a power of .504, which was higher than the PPVT-R. This assessment found significant differences from the pre-test to the post-test. The Receptive Vocabulary test was designed to assess vocabulary knowledge of words children receive in reading instruction. The books sent home could have increased the vocabulary knowledge for the intervention group. Parents could have participated in dialogic reading with their child, which included expressing the meanings of some of the words included in the books.

The Print Awareness test had a smaller change in scores for the comparison group from the pre-test to the post-test than the vocabulary assessments and the Boehm test. The vocabulary assessments and the Boehm test showed change in the comparison group from the pre-test to the post-test. This could be caused due to a change within Comparison Center Two. The center transitioned to a new building during the study. The pre-tests were given prior to the center moving locations. The previous building did not have any print resources in reach of the children nor was any instruction of literacy noticed. The new building had noticeably more print resources such as books and labels. There was also direct instruction to the children in the new center. Comparison Center One had very minimal change on all four scores from pre-test to post-test. This difference in comparison centers suggests that the increase of scores of the comparison group was mostly due to a change within Comparison Center Two.

Teachers served as a link between parents and children. They were able to distribute the intervention materials on a weekly basis to parents and communicate with them the

importance of completing the activities. A strong parent teacher connection can prepare a child to transition to kindergarten (NCEDL, 1999). The level of print awareness in young children supports the need for parents to be involved (Rush, 1999). This also supports the need for a parent-teacher connection (Patrikakou & Weissberg, 2000).

The significant differences found in the print measures show support that an early literacy intervention could improve children's print awareness. In addition, print awareness in children can be improved through activities the child participates in with their parent, supporting future parent interventions.

Implications

This study provides support for continuing research in early literacy and parent involvement. The increase of scores from pre-test to post-test show how important this age is for growth in pre-reading skills. The findings related to print awareness assessments also suggests that practitioners might want to teach children to say the alphabet, as well as teach them the names of letters and their corresponding sounds.

The results from this study show that vocabulary can be enhanced in young children regardless of an early literacy intervention. Vocabulary scores improved in all centers on both the PPVT and the Receptive Vocabulary test. Therefore, early literacy interventions could be focused on areas that are improved through parent and teacher instruction. This includes letter-knowledge, conventions of print, and vocabulary words that are shown in books.

Finally, those working with young children's literacy skill development must be aware that there are certain developmental levels that are appropriate for a child to achieve. For example, preschool children are able to express relationships of objects through words, show an increase in word learning, have a better understanding of concepts, and have more emotional expression (Bloom, 1998). Preschool children are learning words that are associated with objects and events. Around the age of four, children can separate objects into

different categories through expression of language. In addition, their vocabulary is increasing at a fast rate.

For print awareness, most preschool children are able to understand conventions of print if trained. They can learn letters and sounds. However, this skill is achieved best through instruction. This skill requires resources, such as print, and is learned rather than acquired without instruction.

Directions for Future Research

The knowledge gained from this study shows a need to further examine parent effects of children's print awareness. Print awareness has been performed in research as a component of early literacy (Burgess, Hecht, & Lonigan, 2002; Lonigan, Burgess, & Anthony, 2000). Lonigan et al. (2000) performed a longitudinal study, which examined emergent literacy skills with later reading ability. They found that letter knowledge and phonological sensitivity were significant factors in children's ability to decode words in reading. Therefore, print awareness is an important topic of study for future research in understanding early literacy skill development.

One interesting possibility for future research would be studies related to parent knowledge of print and its relation to child print knowledge. For example, the relations between child print knowledge and parent education level, print availability in child accessible areas of the home, and parent attitudes towards print could be studied.

One limitation of this study was that the sample size was small and chosen for convenience. Increasing the sample, randomizing the sample, and including more print awareness components in the intervention could improve this study. In addition, more print awareness assessments measuring child print knowledge could be added.

One of the problems with assessing children is their short attention span. Therefore, the assessments must be split into separate sessions. There are new tools developed that

assess early literacy skills in young children in short sessions (e.g., Get Ready to Read). Future research could examine the effectiveness of these tools for assessing young children.

Finally, gender and race could be examined in future studies. A longitudinal study would provide insight into the changes in literacy skills across different gender and racial groups . For instance, a group of children that attended the same school could be examined to see the gender and racial differences in literacy over time.

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Appendix 2: Implementation Team

Regional Readiness HUBS Implementation Team Membership

Organization	Affiliated Faculty	Faculty Associates	Community College Representatives	vocational technical Representative	Subsidized Representative	Faith Based Representative	Head Start Representative	School Based Representative	Child Care Director	Coalition Representative	Child Care Teacher	Kindergarten Teacher	Health Service Advisor
Calhoun County Schools								1					
Capital Area Comm. Action Agency													1
Early Childhood Services									1				
Faith Based Child Dev. Center						2							
FL Assoc. for Comm. Action, Inc.													1
FL Partnership School Readiness										1			
FSU College of Human Sciences	1	1											
FSU Ctr. for Prevention & Early Intervention				2									
FSU Dept. of Psychology	1	1											
FSU Edu. Research Ctr. Child Dev.				1									
FSU Family & Child Sciences	4	2											
Gadsden County Schools		1						1					
Gulf Coast Community College			1										
Habilitative Svs. of N. Florida, Inc.													1
Head Start							1						
Jackson County School Board										1			
Jefferson School Readiness Coalition										1			
Kids Inc. of the Big Bend									1				
Learning Systems Institute		1											
Leon School Readiness Coalition										1			
Liberty School Readiness Coalition										2			
Subsidized Child Dev. Center					1								
Tallahassee Community College			1										
Totals	6	9	2	0	1	2	1	2	2	6	0	0	3

Appendix 3: Research Dissemination

Manuscripts/Professional Meetings

Delacova, A.D. (2003). *Prompting parent involvement in pre-school children's early literacy skills*.

Unpublished master's thesis, Florida State University, Tallahassee, Florida.

Mullis, R. L., Ritchson, A. D. & Sullender N. L. (2004). *An examination of relations between the early literacy skills of preschool children and parent involvement*. Manuscript submitted for publication.

Ritchson, A. D., Mullis, A. K., Mullis, R. L., Cornille, T., Sullender, N. L. (2004, June). *Prompting Parent Involvement in Preschool Children's Early Literacy Development*. Poster session to be presented at the annual National Head Start Research Conference, Washington, D.C.

Ritchson, A. D., Mullis, A. K., Mullis, R. L., Cornille, T., Sullender, N. L. (2004, January). *An examination of relations between the early literacy skills of preschool children and parent involvement*. Paper presented at the annual meeting of the Southeast Evaluation Association, Tallahassee, Florida.

Outreach

Sullender, N. L., Delacova, A. C., Mullis, R. L., (2003, February). *HUBS Central Panhandle of Florida Early Literacy Outcomes*. Poster session presented at the annual FSU College of Human Sciences Research and Creativity Day, Tallahassee, Florida.

Sullender, N. L., Delacova, A. C., & Mullis, R. L., (2003, April). *HUBS Central Panhandle of Florida Early Literacy Outcomes*. Poster session presented at the annual FSU Day at the Capitol Tallahassee, Florida.

Sullender, N. L., Delacova, A. C., & Mullis, R., L. (2003, April). *HUBS Central Panhandle of Florida Early Literacy Outcomes*. Poster session presented at the annual FSU College of Human Sciences Awards and Recognition Event, Tallahassee, Florida.

Appendix 4: Informed Consent Forms

PARENT CONSENT & CHILD ASSENT

I freely and voluntarily consent to be a participant in the research project entitled "Florida Network of Community Based Early Learning and Professional Development." This research is being conducted by researchers at the Florida State University Family Institute.

I understand this research project involves:

- Understanding different ways to promote parent involvement in early literacy.
- Exploring parents' attitudes and perceptions towards early literacy development.
- Filling out paper and pencil questionnaires that will take approximately 20 minutes at the beginning of the program and again at the completion of the program.
- Completing activities, which will take additional time, approximately one to two hours per week for six weeks.

I realize my participation is totally voluntary and there is a possibility of a minimal level of risk involved. Therefore, I may stop participation at anytime. All my answers to the questions will be kept confidential to the extent allowed by law. No individual responses will be reported, only group findings.

I understand that this consent may be withdrawn at any time without prejudice, penalty or loss of benefits to which I am otherwise entitled. I have been given the right to ask questions and have received an answer to my satisfaction. I am also giving consent for my child to participate in the activities and assessments.

I may contact the Florida State University Family Institute, (850)644-5643, for answers to questions about this research or my rights. Further questions can also be addressed to the Human Subjects Hotline at Florida State University, (850)644-8836. Group results will be sent to me upon my request.

I have read and understand this consent form.

(Subject)

(Date)



Hello, _____, my name is Amy. How are you doing today? I would like your help in a study that I am conducting. You will be asked to answer some questions about some pictures and words, and then you will get to identify a word with a picture.

I'm going to be asking some of the other boys and girls in your class to help me answer the same questions. Now, some of these questions are not for everyone. So don't worry about it. You just try your best. And, if you feel like you want to stop and don't want to answer any other questions, you just let me know and we can stop at anytime. So will you help me by answering some questions?

If Yes - Great! Let's begin by opening the first page. I'm going to be writing down what you answer. No one will know that these are your answers other than me and two other researchers, so please answer honestly. Are you ready to begin?

If the child says "no" when asked to participate, the child will be free to leave, thanked by the researcher, and dismissed from the study.



Appendix 5: Assessment and Strategy Table

Construct Variable	Measurement	Intervention Strategy	Child Outcome
Print Awareness	Print Awareness Subtest from the Pre-CTOPPP (Lonigan et al., 2002).	Alphabet cards with instructions for parents on letter-sound activities. Letter-identification activities with alphabet cards. Script for parents including conventions of print questions to ask child (ex., show me the front cover of the book).	Scores from the pre-test as compared to the posttest.
Dialogic Reading	Print Awareness Subtest Receptive Vocabulary Subtest (Lonigan et al., 2002) Boehm Test of Basic Concepts (Boehm, 2001).	Storybook that includes a scripted sheet for parents to engage their child in interaction about the story. Tips for enhancing reading time with the child.	Scores from the pre-test as compared to the posttest.
Vocabulary	Peabody Picture Vocabulary Test (Dunn & Dunn, 1981).	Providing parents with information about vocabulary building skills in preschool children. Vocabulary building activities that focuses on action words such as jumping, wiggling, and walking.	Scores from the pre-test as compared to the posttest.

Appendix 6: Measures

Boehm Test of Basic Concepts

Boehm, A. (2001). *The Boehm test of basic concepts for preschoolers*. (3rd Ed.) The Psychological Corporation.

Child-rearing and Education Research Instrument General Form

Schaeffer, E. S., & Edgerton, M. (1985). *Parent and child correlates of parental modernity*. In I. E. Sigel (Ed.), *Parental belief systems* (pp. 287-318). Hillsdale, NJ: Erlbaum.

Peabody Picture Vocabulary Test (PPVT)

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

Print Awareness Test

Lonigan, C. J., Wagner, R. K., Torgesen, J. K., & Rashotte, C. A. (2002). Print awareness subtest. *Preschool comprehensive test of phonological and print processing*. Retrieved April 15, 2003, from <http://www.psy.fsu.edu/~lonigan/Pre-CTOPPP.html>.

Receptive Vocabulary Test

Lonigan, C. J., Wagner, R. K., Torgesen, J. K., & Rashotte, C. A. (2002). Receptive vocabulary subtest. *Preschool comprehensive test of phonological and print processing*. Retrieved April 15, 2003, from <http://www.psy.fsu.edu/~lonigan/Pre-CTOPPP.html>.

Appendix 7: Sample Intervention Activities

Activity 1: You can help your child understand vocabulary in language by asking your child to show you objects in your home. For example, you can ask your child to show you a plant. Your child would recognize the sound of the word plant and attempt to show you an actual plant or a picture of a plant. Write down objects that you asked your child to show you.

Here are some sample objects:

Sample 1: Show me fruit (the child then shows you what they think is a fruit)

Sample 2: Show me picture

Sample 3: Show me chair

Sample 4: Show me table

Sample 5: Show me toys

Sample 6: Show me blanket

Now, ask your child to show you objects around your home and write it down.

Object 1: _____

Object 2: _____

Object 3: _____

Object 4: _____

Object 5: _____

Activity 2: The words your child hears can represent actions. For example, the word peeling means an action such as peeling a fruit. In this activity your child will have the opportunity to show you the meaning of a word by an action. In another example, you can ask your child to show drawing. Your child will then have the chance to take a piece of paper and pencil and show you drawing.

Below are actions you can ask your child to show you. If they do not know the action, then show them what it is.

1. Show me jumping
2. Show me walking
3. Show me pointing
4. Show me wiggling
5. Show me carrying
6. Show me moving
7. Show me picking up
8. Show me sitting
9. Show me stretching
10. Show me patting



Reading

April 2, 2003



Here are some suggestions on how to encourage your child to read.

“Let’s read together tonight!”

“Show me the front cover of the book.”

“Show me the author’s name.”

“Let’s open the cover to the first page.”

“Show me the back of the book.”

“Show me the title of the book.”

“What direction do you read, right to left or left to right?”

This newsletter is produced by the FSU Family Institute

Reading

Reading can be fun for your child if you make it fun. When you have an opportunity to read to your child, take advantage of it. Your child looks up to you. They watch what you do and hear what you say. If you tell your child how much you enjoy reading, they will be more likely to enjoy reading. Also, take the time yourself to read. Because your child is watching you, he or she will notice when you are reading. The more they see you reading, the more they will want to pick up a book and try to read it.

New Reading Skills

During the preschool age, most children have not gained the skill of reading. However, that does not mean that your child shouldn’t try. Preschool children sometimes will pick up a book and attempt to read it. They may want to show you that they can read. Take this as an opportunity to read together with your child.

Reading Together

Reading together with your child can be fun. Reading is a time where you can share new experiences with your child. One way to share a story with your child is to ask questions about

the story. Rather than reading the story from front to back, engage your child into the story by asking questions about the characters and what they are doing. For example, “What is the red dog doing on this page? Why is the girl walking to the store?” Questions such as these keep your child interested in the story. They become active and excited about the story because they get to participate.

New Words in Reading

New words are shown during storybook reading. It is important that your child knows the meaning of a new word so they can understand the story. If you come across a word that you think your child may not know, ask your child. If they do not know the word, then explain it to them using the story as an example. If they answer saying that they know the word, ask them to explain it to you. This helps your child use the word by creating an example to explain it to you.



Appendix 8: Beta Test Timeline

Center	Week One	Week Two	Week Three	Week Four	Week Five
Faith-based, Subsidized	PA Boehm and PPVT	Components of early literacy. Newsletter	Vocabulary (action words)	Vocabulary (action words) Newsletter	PA Print Awareness, Receptive Vocabulary
Subsidized	PA Boehm and PPVT	Components of early literacy. Newsletter	Vocabulary (action words)	Vocabulary (action words) Newsletter	PA Print Awareness, Receptive Vocabulary
Faith-based	PA Boehm and PPVT	Components of early literacy. Newsletter	Vocabulary (action words)	Spring break	Vocabulary (action words) Newsletter
Comparison (for profit)	PA Boehm and PPVT				PA Print Awareness, Receptive Vocabulary
Comparison (subsidized)	PA Boehm and PPVT				PA Print Awareness, Receptive Vocabulary

Center	Week Six	Week Seven	Week Eight	Week Nine	Week Ten
Faith-based, Subsidized	Letter cards Letters and sounds	Reading and vocabulary (my first words)	Dialogic Reading (jump, frog, jump)	Dialogic Reading	PT All measures
Subsidized	Letter cards Letters and sounds	Reading and vocabulary (my first words)	Dialogic Reading (jump, frog, jump)	Dialogic Reading	PT All measure
Faith-based	PA Print Awareness, Receptive Vocabulary	Letter cards Letters and sounds	Reading and Vocabulary (my first words)	Dialogic Reading (jump, frog, jump)	Dialogic Reading
Comparison (for profit)					PT All measures
Comparison (subsidized)					PT All Measures

Appendix 9: Promotional Brochure & Newsletters

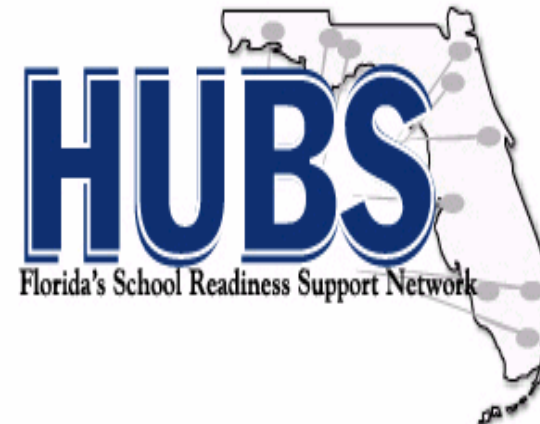
HUBS Future TASKS

- ✓ Fall 2002 a Regional newsletter will be produced and distributed to all partners to ensure timely receipt of information and resources to all partners.
- ✓ Maintain and establish collaborations to plan, design, and implement research agenda.
- ✓ FSUFI faculty, research assistants, and graduate students continue efforts to provide assessment of HUBS projects including research literature reviews, tool development, supervision, training, and evaluation.
- ✓ Central Panhandle Regional Readiness HUB Fall '02 Team meeting to be announced.

Central Panhandle
Regional Readiness
HUBS



Florida State University
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Early Reading First Partnership

Through community and university collaboration, a grant application was submitted to Early Reading First (ERF), United States Department of Education.

This collaboration will prepare pre-kindergarten children, families, and teaching professionals to successfully transition from child care into the school system.

- ✓ The Leon County School Readiness Coalition is acting as project director. Other school readiness coalitions involved include Jackson and Calhoun.
- ✓ Targets rural Gadsden, Jackson, Calhoun, and urban Leon counties in the Central Panhandle.
- ✓ Corporate partners include Kids Incorporated, Early Childhood Services of Gadsden County, Along the Way Child Care, Kids Kingdom, Kiddies College, Land of the Little People, and Cradles to Crayons..

Purpose

Research & Application. The purpose of the Early Reading First partnership specifically targets emergent literacy skills of pre-kindergarten children.



Child care centers were identified based on need for an enhanced literacy environment, teacher professional development, and parental involvement. The goal is to promote literacy for children and involvement of parents, practitioners and community members.

Timeline

Spring 2002: ERF Application process aided by dissemination of Draft Guidance and print and electronic resource materials to aid in integration of research-based strategies related to Early Literacy Development.

Summer 2002: ERF pre-application submitted in July of 2002. The proposed project was selected for submission of full application for federal funding.

Fall 2002: Coordinated and met with University, agency, and business partners to

establish scope of project. Final proposal submitted October 11, 2002. Notification of funding to be provided December, 2002 from U.S. Department of Education. Contingent upon funding, ERF Project planning, implementation, and evaluation is projected for January 2003 through 2005.

FSU Family Institute

- ✓ Beta test sites will be selected where researchers and practitioners develop, field-test, and transfer effective models, strategies, and resources to strengthen school readiness coalitions.
- ✓ Parental Involvement in school readiness continues to be a point of research.
- ✓ Currently completing literature reviews regarding intervention programs, training materials, and evaluation of curriculum related to parental involvement in school readiness for children. Prepared for HUBS state meeting October 14, 2002; Tampa, Florida



HUBS

Florida's School Readiness Support Network

Central Panhandle of Florida

Volume 1, Issue 1

October 2002

Early Reading First

Grant Proposal

Through community and university collaboration, a grant application was submitted to Early Reading First (ERF), United States Department of Education. This collaboration will prepare pre-kindergarten children, families, and teaching professionals to successfully transition from child care into the school system.

Acting as project director for the ERF grant was the Leon County School Readiness Coalition. Also involved were Jackson and Calhoun School Readiness Coalitions. Corporate partners included Kids Incorporated, Early Childhood Services of Gadsden County, Along the Way Child Care, Kids Kingdom, Kiddies College, Land of the Little People, and Cradles to Crayons.

A series of meetings was held with coalitions, corporate partners, and the Florida State University Family Institute to decide on the goals and objective of the ERF proposal. The Early Reading First Grant targets rural Gadsden, Jackson, Calhoun, and urban Leon counties promoting community involvement for the successful transition to kindergarten.

Research & Application

The purpose of the Early Reading First partnership specifically targets emergent literacy skills of pre-kindergarten children. Through professional development for teachers and classroom activities, the ERF grant will provide a print rich environment for children. Child care centers were identified based on need for an enhanced literacy environment, teacher professional development, and parental involvement.

The goal is to promote emergent literacy for children and involvement of parents, practitioners and community members. Child care centers will become centers of excellence, and will serve as a model for other centers around the state.

Process and Progress of Early Reading First Grant Proposal Submission

Spring 2002: ERF Application process aided by dissemination of Draft Guidance and print and electronic resource materials to aid in integration of research-based strategies related to Early Literacy Development.

Summer 2002: ERF pre-application submitted in July of 2002. The proposed project outlined in the pre-application was selected for submission of a full application for federal funding.

Fall 2002: Coordinated and met with University, agency, and business partners to establish scope of project. Through various meetings, the application was produced and the final proposal was submitted on October 11, 2002.

A Notification of funding is to be provided December, 2002 from U.S. Department of Education. Contingent upon funding, ERF Project planning, implementation, and evaluation is projected for January 2003 through 2005.

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- 1 Early Reading First
- 2 Emergent Literacy/HUBS State Meeting
- 3 FSU Family Institute and the ELLM Model

Continued on page 3

Emergent Literacy in Your Classroom

New research shows that literacy skills are emergent and evolving (Whitehurst & Lonigan, 1998). This means that preschool teachers and child care teachers play an essential role in the development of children's literacy skills.

Emergent literacy can be through rapid naming of colors and objects, shared reading, understanding and producing narrative, letter-name knowledge, letter-sound knowledge, short-term memory development, semantic, syntactic, and conceptual knowledge, pretending to read, rhyming, and knowledge of standard print format (Whitehurst & Lonigan, 1998).

Wang (2000) suggests that parents and teachers provide consistent help in the development of children's literacy ability. He suggests doing this through a frequent line of communication among the teachers and parents about the type of help they are providing to the child. Another suggestion is inviting parents to observe the classroom their child is in during literacy instruction. Through parent attendance, parents can have a stronger knowledge of the way their children are being taught by the teacher.

A book rich environment contains poems on the wall, easy access to pictures, and a bookshelf of various kinds of books, including books that were composed by the children through a family or class project. Children can be asked by the teacher about the books and poems they are reading which were checked out from either the class library or the public library.

HUBS State Meeting

On October 14, 2002 a state meeting was held in Tampa Florida. Each university of the State University System of Florida had a representative attending the meeting.

Representing from the central panhandle area were Dr. Ron Mullis, Florida State University Family Institute (FSUFI), Nicole Sullender, HUBS representative, and Amy Delacova, research assistant.

The meeting began with an update from each region. Out of the six areas that applied for the Early Reading First grant, only two were selected to submit a full application. These areas included the Central Panhandle and the Gulf Coast area.

The meeting focused on initiatives were concluded from year one and those to be addressed for year two. Year one concluded with the development of a plan for program implementation and a research support system to be provided along with the program implementation.

Objectives for year two include designing child-focused and research-based materials, tools, strategies, and models. Round one of field testing will take place to test the strategies, materials, and tools in order to make any needed modifications. There will also be a focus on refining knowledge of teachers and



Above, from left to right, are Nicole Sullender, Amy Delacova, and Dr. Ron Mullis.

ELLM Model

The Florida Institute of Education has developed a model to help children learn to read. The *Early Literacy and Learning Model* (ELLM) is designed to maximize the opportunities of young children to acquire the knowledge and skills they need for success in reading and writing. As a research based curriculum ELLM provides teachers with tools to help improve the language and pre-literacy skills of three through six year old children.



Above is Dr. Cheryl Fountain of the Florida Institute of Education.

The ELLM Classroom Model includes daily classroom activities such as oral language and listening, reading aloud, and children reading independently and emergent reading. Also in the classroom activities are letter and sound knowledge, phonemic awareness, and print concepts and emergent writing. They suggest there is at least one hour of literacy instruction daily.

The ELLM Family Model includes reading to the child daily, participation in four school-based activities, a family literacy calendar to support literacy development with suggestions for literacy activities, and monthly family tips. The ELLM Family Model suggests that there is at least 30 minutes of literacy instruction daily.

For further information about the ELLM Model, contact Dr. Janice Wood, *Early Literacy and Learning Model*, (904) 620-2496 or jawood@unf.edu

www.unf.edu/dept/fie/ellm

FLORIDA STATE UNIVERSITY FAMILY INSTITUTE

Beta test sites will be selected where researchers and practitioners develop, field-test, and transfer effective models, strategies, and resources to strengthen school readiness coalitions.

Parental Involvement in school readiness continues to be a point of research and will be addressed through a pretest of the beta sites, program implementation, and a posttest of the sites as well as a comparison group. This will let researchers know how effective the implemented program addressed parent involvement and early literacy.

Researchers at the FSUFI are currently completing literature reviews regarding intervention programs, training materials, and evaluation of curriculum related to parental involvement in school readiness for children.

In addition to FSUFI faculty and research assistants, graduate students and undergraduate students will provide assessment of HUBS projects including research literature reviews, tool development, supervision, training, and evaluation.

TIMELINE OF EVENTS

Look out for the following activities to be taking place:

- ✚ A literature review will be completed on November 27, 2002. This review will contain valuable information gathered from studies performed by professionals relating to parent involvement.
- ✚ The measurement and assessment tools will be finalized. These materials will let us know how effective the program is.
- ✚ Baseline tests will be administered at the Beta Sites from January 27 through February 7.
- ✚ Data Collection will take place from February 10 through February 21.

UPCOMING EVENTS

**Central Panhandle of Florida Regional
Readiness HUBS Meeting:**

November 2002
FSU Family Institute
1234 Bronough Street
12:30-2:30



**Regional Training for Coalitions and
School Readiness Partners:**

October 30, 2000
Kids, Inc.
1170 Capitol Circle NE
Tallahassee, FL
10:00-1:00

Training also held
November 7, 2002
Childcare Services Education Center
99 Eglin Pkwy
Ft. Walton Beach, FL
10:00-1:00

RSVP to 1-866-4FPSR-QI
Or email at: amirabella@fcforum.org

NAEYC National Conference

November 20-24, 2002
New York, New York

Florida State University
Family Institute
Ron Mullis, Ph. D.
Nicole Sullender
Amy Delacova
225 Sandels
Tallahassee, FL 32306-1492
850-644-5643

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Regional Implementation Team Meeting

On Friday, November 22, 2002 members of the regional team met to discuss the beta site selection for HUBS and the selection of assessment and measurement tools. The meeting began by recognizing contact persons and centers in the area that may have an interest in participating in the HUBS program. Chris Duggan, Leon School Readiness Coalition, agreed with the suggestion to include a faith based school, a Head Start school, a not for profit school, and a for profit school as beta sites.



Above Dr. Ron Mullis and Chris Duggan discuss beta site selection at the regional meeting in November.

The meeting centered on the different ways we could provide literacy tools to young children. Nicole Sullender, FSUFI, brought up the idea for centers to sponsor a scholastic book fair. Duggan suggested that we look at the HIPPPY Program (home instruction preschool program) for parent involvement. This program works with parents by teaching them ways they can teach their child; this includes finger plays, language, etc. The meeting concluded with the implementation team providing support for contacting centers to serve as beta sites.

Research & Application

The continued goal of the HUBS program in the Central Panhandle of Florida is to promote emergent literacy for children through involvement of parents, practitioners, and community members. We hope the child care centers become centers of excellence and serve as models for other centers. In order to do this we need parent involvement. Positive interactions between parents and children can aid in the process of emergent literacy development in young children.

A Look at Assessments

Prior to entering a child care center with an intervention program, we must first select assessment and measurement tools. The tools are used to help us assess changes in child behavior in early literacy skills. For the HUBS project, assessments will be done through a pretest and a posttest. A pretest will be given to parents, teachers, and children. The parent involvement intervention will come after the pretest and then followed by a

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- 1 Regional Team Meeting/Research and Application
- 2 Emergent Literacy
- 3 Heads Up Reading
- 3 Florida State University Family Institute

Assessments Continued

posttest to determine effects of the intervention.

For children, we are reviewing a tool called Get Ready to Read. This tool looks at reading aloud, phonemic awareness, vocabulary, alphabet recognition, words as symbols, and listening and comprehension skills. Get Ready to Read is a twenty item test that will show the level of achievement and understanding a young child has about emergent literacy. Specifically, this tool does not assess the level of literacy achieved in children but rather it assess the development of emergent literacy skills in children and helps us know if a young child is ready to read.

For teachers, a pretest and posttest will also be given. The suggested test is the Literacy Acquisition Perception Profile (LAPP). This questionnaire will be distributed to teachers prior to the intervention. It looks specifically at the knowledge and perceptions teachers have about emergent literacy in young children. The intervention will take place and then followed by the LAPP questionnaire as a posttest. The use of the LAPP will let us know if the intervention was effective in expanding knowledge of emergent literacy in teachers.

Finally, we will give parents a pretest and posttest. Parents will be asked questions from the Parental Modernity Scale which assesses parental attitudes and beliefs. They will also receive an adapted version of the Literacy Acquisition Perception Profile. The LAPP questionnaire will be handed to parents for them to answer before and after the intervention. However, the questions will be tailored to directly assess the perceptions and knowledge of emergent literacy in parents.

Emergent Literacy in Your Classroom

New research shows that literacy skills are emergent and evolving (Whitehurst & Lonigan, 1998). This means that preschool and child care teachers play an essential role in the development of young children's literacy skills.

Emergent literacy exercises can be accomplished in the classroom through rapid naming of colors and objects, shared reading time, understanding and producing narrative, letter-name knowledge, letter-sound knowledge, short-term memory development, pretending to read, rhyming, and knowledge of standard print format (Whitehurst & Lonigan, 1998). Wang (2000) suggests that parents and teachers provide consistent help in the development of children's literacy ability. A frequent line of communication between teachers and parents about the type of help they are providing to the child is used. Parents and teachers talk with one another about the type of activities their child is participating in while in the classroom. Another suggestion is inviting parents to observe the teacher in the classroom during literacy instruction time. Through parent attendance, parents can increase their knowledge of the way their children are being taught by the teacher.

Another component of emergent literacy is a [book rich environment](#). A book rich environment contains poems on the wall, easy access to pictures, and a bookshelf of various kinds of books, including books that were composed by the children through a family or class project. Children are asked by the teacher about the books and poems they are reading which were checked out from either the class or public library. Young children can experience a book rich environment both in the school and in the home. Some schools and child care centers have implemented a literacy corner. The literacy corner is compiled of books and games, which directly link the child to literacy development.

Heads Up Reading!

At the state implementation meeting in Tampa in October, 2002, the Florida Gulf Coast HUBS, who is also working to provide a literacy intervention program, suggested the Central Panhandle of Florida region look at the Heads Up Reading program. The program provides early childhood educators continuing training on early literacy skills for the classroom. As a part of the National Head Start Association, Heads Up Reading is a distance learning course on early literacy specifically designed for early childhood educators. Heads Up Reading provides the latest activities available that are supported by research directly to practitioners. The program is designed to enhance literacy development for children at birth through age five. Teachers participating in the course are enrolled in 15 classes, taken via satellite. Course topics for the month of December include administration in early childhood education, curriculum development, reading, writing, and understanding children's behavior and enhancing learning for children birth to three.

Another component of Heads Up Reading involves participation in web based activities. These web based activities include a weekly video focus highlighting an excerpt of the broadcast satellite lesson, a discussion board where you can post any questions you have about early childhood education, a planning tool called an action plan to help implement new skills and concepts with children, and resources such as online material and websites. Heads Up Reading is comprised of distinguished faculty including Sue Bredekamp, David Dickenson, and William Teale. This course provides continuing education units or college credit. In addition, Child Development Associate training will be offered. For further information on Heads Up Reading call 1-800-438-4888 or check out their website at www.huronline.org.

Florida State University Family Institute

Currently, FSU Family Institute researchers are examining various measurement and assessment tools. The Family Institute is currently working to encourage students to take part in the HUBS program through their own research. A master's student in Family and Child Sciences is beginning thesis work in the area of parent participation in early literacy. This research will take place in two to three centers and implement a brief program of six to eight weeks that will encourage a parent to participate in their child's learning. This research also hopes to bridge a line of communication between teachers and parents. The master's thesis will help the implementation team define current literature and intervention tools supported by research.

Timeline of Events

- ✚ A literature review is being compiled that supports the research of HUBS. This review will contain valuable information gathered from studies performed by professionals that relate specifically to parent participation in early literacy.
- ✚ Measurement and assessment tools are currently being examined. These materials will let us know how effective the program is. See page one in this newsletter regarding the selection of intervention tools.
- ✚ Selection of Beta Sites is currently being discussed. Four centers will be selected in December.
- ✚ Baseline tests are planned to be administered at the Beta Sites from January 27 through February 1.
- ✚ Data Collection is planned for February 3 through February 7.

UPCOMING EVENTS

Central Panhandle of Florida Regional Readiness HUBS Meeting:

The statewide HUBS implementation meeting will take place January 31, 2003 in Tampa, FL.

As part of the Good Start, Grow Smart initiative an Early Childhood Educator Academy will be held from December 9-10, 2002 at the Miami Biscayne Bay Marriot in Miami Florida. For further information go to <http://ed.gov/offices/OESE/earlychildhood/eceacademy.html>.

Beyond Centers and Circle Time is a training institute for trainers of early childhood teachers. Training will take place from January 13-17, 2003 in Tallahassee. For further information contact LaToya Washington by fax at (850) 921-8307 or e-mail to lwashington@fctforum.org

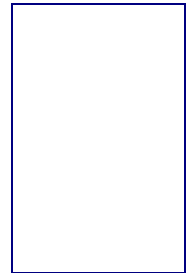
The next North Central Regional HUBS meeting is planned for February, 2003.



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Please send suggestions for the newsletter to acd5331@garnet.acns.fsu.edu.



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HUBS

Florida's School Readiness Support Network

Central Panhandle of Florida

Volume 2, Issue 1

January/February 2003

Pilot Test

The pilot test of the HUBS project in the Central Panhandle of Florida is scheduled to begin at the end of February. The pilot test extends eight weeks long with two weeks of a pretest and posttest. Six weeks of an intervention strategy are planned that specifically target parent involvement in early literacy development of young children. Participating centers in the study include a Head Start center, a faith-based center, a child care subsidized center, and a comparison center. The four selected centers are in Calhoun, Gadsden, and Leon Counties. The centers have welcomed this research and are excited about participation.

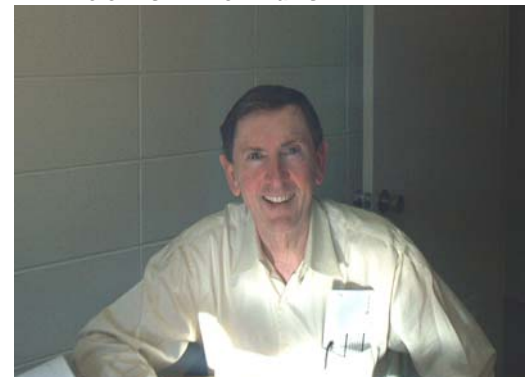
Approval from Human Subjects Committee

On January 15, 2003 informal approval was given by the Human Subjects Committee to Florida State University Family Institute researchers to perform this study. The Human Subjects Committee, which is a part of the Office of Research at FSU, reviewed the application, which was requesting approval to work with young children and their parents.

Florida State University Family Institute Research Team

As we begin this research study, it is important for community members to get to know the Florida State University Family Institute research team who will be entering child care centers in the Central Panhandle of Florida to improve parent involvement and early literacy skills in young children. The principal investigator of the HUBS project is Dr. Ron Mullis. Dr. Mullis is the department chair in the department of Family and Child Sciences at Florida State University. Dr. Mullis has been on faculty at FSU for 13 years and directed head start centers prior to becoming a faculty member. His research includes looking at child care environments, work conditions of directors of child care centers, and parent-child interaction and learning effects on literacy development. Dr. Mullis will be overseeing the research efforts as well as participating in the assessments and intervention strategy.

Below is Dr. Ron Mullis



Nicole Sullender has been working with HUBS since May of 2002. Nicole is from Arkansas where she previously worked in developing 4-H programs through extension services. Nicole is a doctoral student in family relations in the department of Family

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- 1 Pilot Test and FSUFI Research Team
- 2 Assessment of Intervention
- 2 Intervention Strategy
- 4 Upcoming Events

Human subjects continued

The materials included in the application were informed consent forms, a sample of the assessment tools and a sample of the materials and activities that will be provided to the parents and children. The initial application was revised after the committee reviewed the components to address important areas in the informed consent. These areas include the potential risk involved in the study, participants can discontinue participation at any time, and a script to ask children to participate which gives them the opportunity to agree or decline.

The informed consent forms are important because they let parents and teachers know their involvement in the study as well as any risk or harm that could occur. Three separate informed consent forms have been produced. The first is for participation from parents. The consent form for parents asks for their participation and gives them an estimate of the time required for participation. The consent form for teachers also asks for their participation and informs teachers of responsibilities involved in participating as well as the time commitment. The consent form for children, however, is a little bit different than the previous forms for parents and teachers. Parents will be given the form for children, asking for participation of their child. It explains the level of risk, which is minimal, and the benefits of participation in the study. Once informed consent has been received by teachers and parents who wish to participate, the research study can begin.

Assessment of Intervention

In order to see the effectiveness of the early literacy intervention, we will be measuring parent perceptions, teacher perceptions, and child outcomes through a pretest and a posttest. The pretest is scheduled to begin on the week of February 24, 2003. FSUFI researchers will spend one week in the centers working with children and distributing questionnaires to parents. The parent questionnaire looks at their attitudes of early literacy, their beliefs in the roles they should play in their child's learning, and the perceptions they have of their child's teacher.

The teacher questionnaire looks at teacher perceptions of parents and their knowledge of early literacy. The parent questionnaire was adapted from the Parental Modernity Scale which was created by Early Schaefer and Marianna Edgerton. This scale has been used in previous studies for parents of young children in child care centers.

The teacher questionnaire was adapted from the Literacy Acquisition Perception Profile (LAPP) which was designed to look at teacher knowledge and beliefs of emergent literacy and reading readiness in teachers. The teacher questionnaire includes the LAPP scale which has been adapted to specifically address early literacy beliefs of teachers. Additional questions were added to the teacher questionnaire that looks at teacher perceptions of parent involvement.

Children will be assessed by the Peabody Picture Vocabulary Test (PPVT) and the Boehm Test of Basic Concepts for Preschoolers. The Boehm Test evaluates a child's language, perceptual abilities in communication, and looks at basic relational concepts in young children. The PPVT assesses receptive vocabulary attainment as well as looks at verbal ability.

Intervention Materials

The intervention of the pilot study will encompass three main areas. The first area is phonemic awareness. Phonemic awareness is the ability to hear and manipulate sounds in spoken words. Parents and children will receive materials such as rhyming activities and worksheets that break down words into phonemes for parents to complete with their child.

The second area of focus is vocabulary. A set of materials will be sent home that looks at receptive vocabulary. Receptive vocabulary is where a child associates a meaning with a specific label.

The third area of focus is dialogic reading. Dialogic reading is where parents interact with their child during storybook reading. This encourages language development in a child as well as promotes parent-child interactions.

Florida State University Family Institute

The Florida State University Family Institute hosted a public forum on January 31, 2003 for response to current legislation impacting early childhood education and caregiving. The panel comprised of Phyllis Kalifeh, Executive Director of the Florida Children's Forum; Mary Bryant, Director of Florida Head Start Collaboration Office; and Vivian Fueyo, FSU College of Education were welcomed by Dean Ralston of the College of Human Sciences. The panel engaged in a strategic response to universal pre-kindergarten mandates and implications for educators and care providers. The panelists reviewed the January 2003 position paper entitled *Florida's System of Early Care and Education Universal Pre-Kindergarten Program Position Paper Representative of Early Childhood Stakeholders* produced by Florida Children's Forum, a non-profit childcare resource and referral network which promotes advocacy for children and families. Faculty, students, and community members joined the discussion.

FSUFI Research Team Cont.

be handling a lot of administrative tasks for HUBS as well as performing the assessments and working to gather intervention materials.

Amy Delacova joined the HUBS team in August of 2002. Amy is also in the department of Family and Child Sciences where she is pursuing her master's degree in family relations. She has been working on the literature support for this study. In addition, Amy has the opportunity to complete her thesis study in collaboration with the HUBS effort, which allowed us to have more research support for the study and further extend our efforts as well as performing assessments and developing intervention materials.

Lisa Bliss is new to our research team. After joining us in January, she has been working on the intervention materials that will be given to parents and teachers in the centers. Lisa is a senior Psychology student at FSU. She will be working in the centers performing the pretest and posttest as well as encouraging parents to use the materials to interact with their child. Lisa is also working on the weekly newsletter that will be distributed to parents. We are excited she has joined us!

Below are Lisa Bliss (left), Amy Delacova (middle), and Nicole Sullender (right).



Timeline of Events

- ✚ A literature review has been compiled that supports the research of HUBS. This review looks at previous studies that are similar to the current HUBS research study. The literature collected supports the intervention materials as well as the assessment tools. For a copy of the literature review, contact acd5331@garnet.acns.fsu.edu.
- ✚ On February 24, 2003 FSUFI researchers will be in child care centers pre-testing children and distributing questionnaires to parents and teachers.
- ✚ On March 3, 2003 the intervention will begin by distributing materials to parents and teachers. The intervention will extend for six weeks, ending on April 11, 2003.
- ✚ The week of April 13, FSUFI researchers will be post-testing the children using the same assessments as the pretest. Parents and teachers will also receive the same questionnaires they received in February.
- ✚ Analysis will begin after data is collected.

UPCOMING EVENTS

Central Panhandle of Florida Regional Readiness HUBS Upcoming Events:

The statewide HUBS implementation meeting is planned for March 28, 2003 in Tampa, FL.

The next North Central Regional HUBS meeting is planned for this coming spring, 2003.

Society for Research in Child Development Biennial meeting is in Tampa, FL on April 23-27, 2003.

We appreciate the involvement of our Regional HUBS Implementation Team Members: Nicole Capps, Maurine Daughan, Billie Dixon, Chris Duggan, Lauren Faison, Martha Fletcher, Mimi Graham, Carolyn Herrington, Sue Howell, Dot Inman-Johnson, Ann K. Levy, Dr. Ann Mullis, Rebecca Pruett, Dr. Christine Readdick, Cynthia Shrestha, Suzanne Stoutamire, Dr. Patty Ball Thomas, and Dr. Patricia Wilhoit.



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HUBS State Meeting

On March 28, 2003, the Florida Institute of Education hosted a state meeting for the Florida Network of Early Learning and Professional Development HUBS. Attending from the Central Panhandle of Florida were Dr. Ron Mullis and Amy DeLaCova of the FSU Family Institute. The meeting was held to receive updates of regional projects as well as discuss implementation for year three. The meeting began with a discussion regarding the current status of collaborations between the State Universities with the School Readiness.



Ron Mullis and Amy Delacova note effective research strategies.

Intervention

The Florida State University Family Institute (FSUFI) research team has been dedicating time in centers in Leon, Gadsden, and Calhoun Counties working with teachers and children to implement the intervention strategies. The FSUFI research team consisting of Dr. Ron Mullis, Nicole Sullender, Amy DeLaCova, and Lisa Bliss, have implemented research based practices in the participating centers. These practices include strategies to promote phonemic awareness, vocabulary building, and storybook reading.

The phonemic awareness activities consist of emphasizing the sounds of letters. Children are engaged in activities where the teacher or researcher says a word and the child pronounces the sound that starts that particular word. This is done through writing words, singing songs, and playing games like "I spy". These are developmentally appropriate practices for the age populations of primarily four and five year olds.

Vocabulary building skills are being enhanced using a picture book that will be sent home with each child to encourage reading and interaction between parent and child. The book includes sets of pictures of objects with words written below them. The parent reads the word aloud and then asks the child to point to the picture that shows the word. This reading activity will give parents an idea of their child's current vocabulary and provide an opportunity to increase their child's vocabulary knowledge. (Continued on page 3)

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- 2 Assessment of Intervention
- 2 Intervention Strategy
- 4 Upcoming Events



Collaboration Discussion led by Cheryl Fountain

State Meeting News (Continued)

University partners briefed the group regarding current collaborative efforts with the local School Readiness Coalitions. The projects address a variety of educational program areas and intervention designs and methods. The purpose of HUBS in the central panhandle of Florida region is to prompt parental involvement in early literacy. Other areas of focus from regions across the state of Florida include the following.

- validating preschool curriculum
University of Florida
- providing staff training to caregivers
University of Central Florida
- evaluating staff values
Florida A & M University
- examine staff development and factors attributing to continuity of care for children
Florida Atlantic University
- developing the ELLM Model
University of North Florida
- providing peer coaching to early childhood staff
Florida Gulf Coast
- Socio-emotional development in children from birth through age three, extending the focus of HUBS from birth through age five.

HUBS Roles

Next, the discussion moved to roles and responsibilities. Common themes across the state include interactions among teachers and parents, committed partnerships with the school readiness coalitions, values and curricula in early childhood programs, getting to know the needs of the community, and the need to follow up with participants beyond their early childhood programs and into the school systems.

Funding

Appropriation funding for the HUBS Project was not awarded. Next steps to continue research effort without additional funding were considered. The Florida Institute of Education will explore alternative funding opportunities. A Year 2 no-cost extension was proposed by Sheryl Fountain and Madeline Cosgrove. All in attendance unanimously agreed to continue through project through October 15, 2003 contingent upon securing the no-cost extension. Despite these limitations, continued support for HUBS was voiced by State University System members.

Intervention (Continued)

Vocabulary building is also being enhanced through other print mediums and parental interaction. Dialogic reading is an interactive style of storybook reading between parents and children. The parents have the opportunity to ask the child about the story and receive feedback from the child regarding their understanding of the story. They also have the chance to show children pictures of words they may not have been exposed to.

Child Assessments

The Boehm Test of Basic Concepts is being used to measure the effectiveness of parent involvement in dialogic reading. This test includes questions about basic concepts such as under, over, nearest, etc.

The Peabody Picture Vocabulary Test measures the vocabulary knowledge of a child attained thus far. This test will allow us to see if there has been a change from the initial test to the conclusion of the intervention.

The Print Awareness subtest of the Preschool Comprehensive Test of Phonological & Print Processing (Pre-CTOPPP) will be given to children to assess the affects of dialogic reading. This test ask questions such as; find the picture that has letters in it, which can you read, and what is the name of this letter.

The Receptive Vocabulary subtest, also part of the Pre-CTOPPP, measures the level of vocabulary words attained in a child. The vocabulary words consist of objects such as apple, toy, sign, and leaf. The child is given a word, and asked to point to the picture of the word on the page.

FSU Family Institute Capitol Day

The FSUFI was represented at FSU DAY at the Capitol. FSU day at the capitol is a chance to show our legislative leaders the research that is taking place in the community. The FSUFI, along with the College of Human Sciences, welcomed leaders to the table and provided them with information regarding current research, leadership opportunities, networking of community members, and impact of the organization.

Honors and Awards Banquet

The HUBS regional project was presented in the form of a poster presentation at the College of Human Sciences honors and awards banquet on Tuesday, April 1, 2003. Community members, alumni, faculty, and students attended the awards banquet and had the opportunity to view the project and its components.

Event Timeline

The following events will be taking place in childcare centers in the Central Panhandle of Florida:

A literature review has been completed that supports the research of HUBS. For a copy of the literature review, contact acd5331@garnet.acns.fsu.edu.

Post-assessments are scheduled to take place in the beginning of May for the intervention and comparison centers.

Post-assessments in the centers for children, parents, and teachers are estimated to take two to three weeks to be completed.

Data Analysis will begin after all data has been collected.

Once data has been analyzed, results will be interpreted and provided to partners and disseminated to practitioners throughout the state.

We appreciate the involvement of our Regional HUBS Implementation Team

Members: Nicole Capps, Maurine Daughan, Billie Dixon, Chris Duggan, Lauren Faison, Martha Fletcher, Mimi Graham, Carolyn Herrington, Sue Howell, Dot Inman-Johnson, Ann K. Levy, Dr. Ann Mullis, Rebecca Pruet, Dr. Christine Readdick, Cynthia Shrestha, Suzanne Stoutamire, Dr. Patty Ball Thomas, and Dr. Patricia Wilhoit.

UPCOMING EVENTS

Central Panhandle of Florida Regional Readiness HUBS Upcoming Events:

Society for Research in Child Development Biennial meeting is in Tampa, FL on April 23-27, 2003.

Florida Network of Early Learning and Professional Development HUBS is scheduled to meet in Tampa for a State meeting in May, 2003.

National Head Start Association 30th Annual Training Conference: May 27-30. New York, New York. For more information call 800-424-2640.



Florida State University

Family Institute

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Amy Delacova

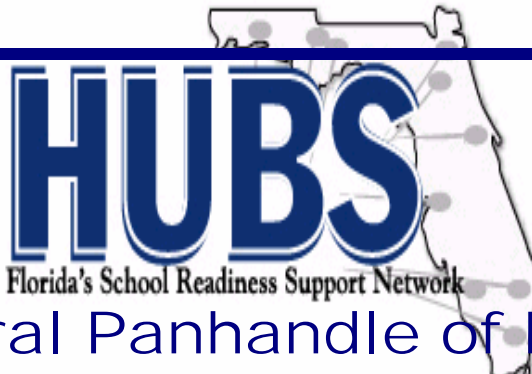
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Central Panhandle of Florida

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Completion of Data Collection

Post-assessments on four measures were completed in May of 2003 in five early childhood centers in the Central Panhandle of Florida. The assessments included the Boehm Test of Basic Concepts, the Peabody Picture Vocabulary Test, and The Receptive Vocabulary Test and the Print Awareness Test from the Preschool Test of Phonological and Print Processing. Each child participating had the opportunity to take each assessment. The results of the assessments were collected in May and examined in June to determine if there was a child outcome effect from the intervention activities provided to the centers during the eight week intervention period.

Intervention and Comparison

The Intervention group received an eight week intervention that included activities. The activities were worksheets with vocabulary words, worksheets that targeted relational concepts such as between, far,

Final Completion of Project

The focus of this region was to examine parent involvement in children's early literacy development through a child outcome effect. This was done by providing an eight week intervention to three centers and comparing the children's results with a comparison group. The intervention group took four assessments prior to and after the intervention while the comparison group did not receive the intervention but completed the assessments eight weeks apart.

The scores on the Boehm Test of Basic Concepts showed similar difference from the Pretest to the Posttest on all five centers. The average score for the intervention group was 36.16 on the pretest and 42.06 on the posttest. The average score for the comparison group was 38.73 for the pretest and 41.48 for the posttest. The similar change in center from the pretest to the posttest did not result in a significance level for the scores on the Boehm Test of Basic Concepts.

The Peabody Picture Vocabulary Test also did not reach a significance level. The average pretest score for the intervention group was 88.97 and 90.79 for the posttest. The average pretest score for the comparison group was 84.64 and 85.62 for the posttest. Both groups showed a change of less than two points.

Results from the Print Awareness test revealed significant differences in groups based on scores from the pretest to the posttest. The intervention group had an average score of 18.51 on the pretest and 21.69 on the posttest.

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near, and around, letter cards with all the letters of the alphabet included, and two books, Jump Frog Jump, and My First Words. These activities were distributed to three centers on a weekly basis. In addition, a research from the FSU Family Institute spent additional hours in the centers participating in the activities with the children. The comparison group, which consisted of two centers, did not receive any intervention. They participated in the pre-assessments and the post-assessments.

Description of Sample

The sample included sixty-seven children from the five participating centers. Intervention center one had 19 children and was government subsidized. Intervention center two had 12 children and was also government subsidized. Intervention center three had 10 children and was faith-based. Comparison center one had 18 children participating and was a for-profit center. Intervention center two had 8 children and was government subsidized.

Of all the participating children, 33 were males and 34 were females. Race characteristics included 37 white children (55%), 23 black children (34.3%) and 7 children classified as other (10.4%). The median age of participants was 57 months with an age range from 45 to 67 months.

Procedure

The post-assessments were conducted by researchers from the FSU Family Institute. The researchers included Dr. Ron Mullis, Nicole Sullender, Amy DeLaCova, and Lisa Bliss. The research team worked together to complete assessments. The Boehm Test of Basic Concepts and the Peabody Picture Vocabulary Test was given first. The Print Awareness test and the Receptive Vocabulary tests followed.

A Look at Assessments

The comparison group had a score of 13.17 on the pretest and 13.87 on the posttest. The change in scores for the intervention group was over three points while the comparison group showed an average change of .17.

The final assessment given was the Receptive Vocabulary test. This test was different than the Peabody Picture Vocabulary test because it measures vocabulary achieved in reading instruction. The average scores for the Intervention group were 30.15 for the pretest and 33.67 for the posttest. The average scores for the comparison group were 29.79 for the pretest and 31.88 for the posttest. The change was high for the intervention group which resulted in reaching a level of significance.

Print Awareness

The Print Awareness test achieved significance which can lead us to believe it was in part due to the intervention. Print awareness includes print components such as letters of the alphabet, the cover of a book, finding the title of the book, differentiating between what is a letter and what is a number, and identifying the sound of a letter with the actual letter on a page. Print awareness activities that were sent to the home for the intervention group included letter cards with an instruction sheet for parents on pronouncing the sound of the letter and having the child identify that letter. Books were sent to the parents along with an idea sheet that prompted the parents to ask their child questions such as, which side is the front of the book, and show me the title and author of this book.

The results from the study imply that parents can make a difference in their child's print awareness ability. In addition, it was demonstrated that print awareness is a skill that is gained with resources. Parents need resources to teach their child print skills including books and letter cards used to prompt questions for the child.

basis. Children gain knowledge of words during these years through experience. However, there are additional vocabulary words children can learn during reading instruction. Through using dialogic reading, teachers and parents can discover the vocabulary knowledge of their child. In addition, they can point out new words to the child and explain their meanings. These new words can also be used to convey the meanings of different words to the child.

FSU Family Institute

The Florida State University Family Institute is excited to welcome back Dr. Ann Mullis and Dr. Tom Cornille. Dr. Ann Mullis has been in Washington D.C. this year where she has been a fellow for the National Head Start Association. Dr. Tom Cornille has been at Arizona State University and the University of Minnesota where he has been involved in research. The FSU Family Institute is looking forward to their return in August.

National Head Start Research Conference

The National Head Start Association, the Society for Research in Child Development, and Columbia Teachers College are having their biennial research conference in Washington D.C. in June of 2004. The FSU Family Institute submitted an application to the research conference to present the results of the HUBS study on early literacy.

We hope to present our results to further research on early literacy and show the importance of print awareness in young children. In addition, the results of this study will be able to aid in other studies being performed by researchers in other areas of the country. By participating in the conference the FSU Family Institute will be able to gain information and results from other studies that will help further explain the results of the current early literacy study performed in collaboration with HUBS.



Nicole Sullender performs the PPVT-R with a participant

Timeline of Events

The following events will be taking place in childcare centers in the Central Panhandle of Florida:

- ✚ The intervention centers will be receiving a report with the results of the study. This will give them further information on their areas of strength as well as their areas of weakness.
- ✚ The comparison centers will also be receiving a report showing the results of the study.
- ✚ Following distribution of the report to the comparison centers, informal training will take place. A FSU Family Institute researcher will spend time in the centers working with the children and teachers. In addition, materials will be provided to the parents similar to the materials provided to the intervention group.
- ✚ A final report will be submitted in early fall to the Florida Network of Early Learning and Professional Development HUBS.
- ✚ The final report will also be submitted in presentation form to the National Head Start Association for a proposal to present the findings in this study at their biennial research conference.

UPCOMING EVENTS

Central Panhandle of Florida Regional Readiness HUBS Upcoming Events:

The statewide HUBS implementation meeting is planned for this fall in Tampa, FL.

We appreciate the involvement of our Regional HUBS Implementation Team Members: Nicole Capps, Maurine Daughan, Billie Dixon, Chris Duggan, Lauren Faison, Martha Fletcher, Mimi Graham, Carolyn Herrington, Sue Howell, Dot Inman-Johnson, Ann K. Levy, Dr. Ann Mullis, Rebecca Pruett, Dr. Christine Readdick, Cynthia Shrestha, Suzanne Stoutamire, Dr. Patty Ball Thomas, and Dr. Patricia Wilhoit.



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Suggested Reference:

Mullis, R. L., Mullis, A. K., Cornille, T., Ritchson, A. D., & Sullender, N. L. (2004). Early Literacy Outcomes and Parent Involvement (Tech. Rep. No. 1). Tallahassee, Florida: Florida State University Family Institute, Outcome & Evaluation Unit.