Emergent Literacy of Three-Year-Old Boys: A Case Study

Introduction to the Problem: As schools struggle to meet the demands of No Child Left Behind (2001), literacy again comes to the forefront. All children are to reach, at a minimum, proficiency on challenging state academic standards and state academic assessments. Every student is to read at grade level or above no later than the end of grade three. Early child care facilities can assist public schools in preparing these children for school entrance.

Knowledge of how children develop literacy has led to the use of the term “emergent literacy” among educators and early childhood specialists (Isbell, Holmes, Duggers, Peters, Floyd, 1989). An increasing number of studies of emerging literacy indicate language abilities are interrelated and the process begins in infancy and expands over many years (Chomsky, 1972, Halliday, 1975, Loban, 1976). Morrow (2004, p. 88) states that children need regular and active interactions with print at a very early age. Lonigan, Burgess and Anthony (2000) find emergent literacy skills of preschoolers (mean age 3 years, 5 months) are predictive of later reading skills in first grade. Theriot, Franco, Sisson, Metcalf, Kennedy, and Bada (2003) report 33-39 month-old children exposed to an early literacy program at a university-affiliated inner-city pediatric clinic scored higher on the Peabody Picture Vocabulary Test and the Expressive One Word Picture Vocabulary Test. Rush (1999) in a study involving thirty-nine 4 and 5 year-olds found the degree of caregiver involvement and participation in early literacy activities was related to early literacy and language skills. In a 5-year longitudinal study beginning with 4- and 5-year-old middle- and upper-middle class children, Senchal and Lefevre (2002) found children’s exposure to books is related to the development of early literacy skills. These early literacy skills directly predicted word reading at the end of grade one. Subsequently, word reading at the end of grade one predicted reading comprehension in grade three. Whitehurst, Zevenbergen, Crone, Schultz, Velting, and Fischel (1999), in replicating an emergent literature intervention in Head Start with a new cohort of children, found positive effects of emergent literacy skills were maintained through the end of kindergarten.

Survey and observational research of at-risk preschoolers finds that those raised in poverty receive less frequent and lower quality shared book-reading experiences with their caregivers (Edwards, 1989). Discrepancy in reading achievement between children from low-socioeconomic status environments and those from middle to upper socioeconomic environments is found as early as preschool age (Bowey, 1995). These children begin school with skill deficits. There is a need for early intervention with early literacy programs designed for these at-risk preschoolers. Whitehurst et al (1999) state, “The development of well-designed and appropriately targeted inventions to enhance the emergent literacy and reading readiness skills of children from...
low-income backgrounds should continue to be a priority" (p. 271).

**Purpose**

The purpose of this study was to expand upon work in emergent literacy published in *Journal of Youth Services* (Fehrenbach, L., Hurford, Fehrenbach & Brannock, 1998). The previous study focused on an emergent literacy program in a preschool for four and five year-old children from middle-class families. I wished to see what the results would be with three-year-old at-risk children from low-income homes in an early child care facility.

This study documents the progress of three three-year-old boys in a high literacy early childhood setting over a two-month period. The children were pre and post tested on (1) six emergent literacy behaviors and (2) fourteen pre-reading skills.

**Setting**

The setting for the case study was an early child care facility in a small mid-western university town in Kansas. The early child care facility was selected because of its status as an Early Head Start facility and because it serves high-risk, low-income children. The early child care facility had only been in operation six months at the beginning of the study. The director holds masters' degrees in Early Childhood, Special Education, and Library Science. The director is also a librarian.

Children in the facility range in age from six months to three years old. The facility serves a culturally diverse population which includes one Arab-American boy, one Persian-American boy, one Nigerian boy, one Hispanic-Arab girl, and one Caucasian boy. All of the children but one come from single parent homes. One child lives with his grandmother, who has custody of him.

**Subjects**

This case study focuses on the three three-year-old boys in the facility. Matthew is of Persian-American descent. He is in a single parent home. He has a six-month-old half-sister who does not live at his home and a six-month-old half-sister who lives at his home and attends the same early child care facility as he does. When Matthew first entered the facility, he exhibited signs of aggression, biting and kicking other children. His mother reports the child acts aggressively at home. Visits with the child and his mother indicated there were no books at home. The mother receives SRS reimbursement. The father is not in the picture.

Michael is Caucasian and lives with his single grandmother, who has custody of him. He has no siblings. He occasionally sees his single mother; the father is not in the picture. He qualifies for Early Head Start based on socioeconomic status and being in a single grandparent’s home. The child is in the early child care facility 42 hours a week. The director and this researcher observed this child as being hyperactive. A special education teacher reports this child has the potential for being identified as AD/HD when he reaches school age. He exhibits signs of aggression toward other children through scratching, kicking and tackling and has destructive behavior. He has a few books at home and his grandmother reports she reads a book to him at bedtime.

Andrew is Arab-American. The family is of low socioeconomic status. His father is a first generation immigrant and is bilingual. Andrew understands both English and Arabic. Both his mother and father hold masters' degrees. He is a very happy child and shows no signs of aggression. His family has many books in their home. The father expresses his own difficulty in reading even in his native Arabic. His mother taught herself to read at an early age.

**Materials**

Books selected for the study include ten predictable books. Two of the titles are from The Story Box collection by the Wright Group. These books are developed for emergent readers, ages 5-6. Originally published in New Zealand, the books have now been Americanized in punctuation, grammar, and spelling. The Story Box collection is favorably reviewed (Spiegel, 1989) and is used successfully with nonreaders (Allen, Michalove, Shockley, & West, 1991). The books feature a predictable pattern with rhyme, rhythm, repetition, and illustrations. Books used in the study from the Story Box collection are *To Town,* and *Dan, the Flying Man.*

The remaining eight books in the treatment are also predictable books. These are *The Wheels on the Bus,* *The Little Red Hen,* *The Very Hungry Caterpillar,* *A Home for a Bunny,* *Going to Grandma's,* *Mary Wore Her Red Dress,* *Red Tractor,* and *Dig, Dig, Digging.*
Support for Predictable Books

The use of predictable books is reflective of the literature (Cullinan, Greene, & Jaggar, 1990; Strickland & Morrow, 1989, 1990; Trachtenburg & Ferruggia, 1989). Researchers and early childhood educators note that books containing highly predictable plots or repetitive, cumulative, or rhyming language patterns are easily remembered by young children (Martinez, Cheyney, & Teale, 1991). Holdaway (1979) states that repetition plays a critical role in literacy acquisition and reports group gains in fluency are made through repeated, shared reading. According to Cullinan, Greene, and Jaggar (1990), children need easy books with predictable language, repeated phrases and strong story patterns to support independent reading.

Support for Reading Aloud

Reading to children helps them learn how print functions, how to handle a book, and left-to-right and front-to-back directionality (Strickland & Morrow, 1989). Story reading promotes positive attitudes toward reading and introduces children to the form and structure of written language and acquaints them with literacy conventions (Teale, 1984). Repeated readings of favorite stories encourage children's participation in the story (Strickland & Morrow, 1989).

Source of Material

The Instructional Resource Center (IRC) located in the Pittsburg (KS) State University College of Education was the source of The Story Box books from the Wright Group utilized in the program. The IRC has acquired a substantial number of resources designed for early childhood, including books with predictable patterns.

Another source was the personal collection of the early child care facility director. As a librarian, she has expertise in selecting books and used the following from her personal collection at the child care facility: The Very Hungry Caterpillar, The Little Red Hen, Red Tractor, The Wheels on the Bus, Going to Grandma's, Mary Wore Her Red Dress, and Red Tractor. Early Head Start furnished the books Dig, Dig, Digging and A Home for a Bunny.

Assessment Instruments

Two measures were utilized to assess the effectiveness of the program. These were (1) pre and post observations of six emergent literacy behaviors; and (2) pre and post checklists of 14 pre-reading skills. These methods of gathering data are used by other researchers in studying preschool children.

The emergent literacy behaviors, defined by Morrow and Rand (1991), are book handling, book browsing, pretend reading, reading aloud, reading silently, and storytelling. For this study, definitions of these emergent literacy behaviors are delineated as follows:

- **Book handling**: Picking up a book.
- **Book browsing**: Flipping through a book.
- **Pretend reading**: Looking at each page.
- **Reading aloud**: Saying words while looking at a page with print.
- **Reading silently**: Tracking eyes across the words on a page. This may include lip movements.
- **Storytelling**: Telling the story to an audience.

The emergent literacy behaviors assessment instrument was a pre/post checklist.

The second measure, a checklist of 14 pre-reading skills, is adapted from a list of 20 pre-reading skills used in studies of preschool children at a reading center at the University of Kansas Department of Human Development and Family Life (Littlejohn and Goetz, 1989, p. 308). For the present study, the 14 skills assessed were pointing to a book, front cover, back cover, first page, last page, page number, word, sentence, sentence beginning, and sentence ending, turning pages, matching a word card to a word in a sentence and framing a word (showing where a word begins and ends). The pre-reading skills assessment instrument was a pre/post checklist.

Treatment

A key element in the program was assisting children in connecting print with storytelling as in the work of Strickland and Morrow (1990, p. 343). They recommend structuring the introduction of various print concepts (turning pages, identifying author, front cover, back cover, etc.) in big books as a foundation of a program for emergent readers.

As a means of introducing pre-reading skills, twelve predictable books were selected. The treatment followed a basic format. The children were shown
book features (title, front and back covers, illustrations, etc.) and were asked to make predictions about the story. Then the book was read to the children. On the second reading, print was tracked with the reader’s finger. The book was read several times over the course of the treatment period. During the treatment phase, skills were taught to the children as a group and they participated in reading as a group. During the testing phase, the children were tested individually on emergent literacy behaviors and pre-reading skills.

Procedures

Week One

During the first week of data collection, the children were individually observed for any occurrences of the six specified emergent literacy behaviors. Behaviors were recorded. The children were individually assessed on the 14 pre-reading skills checklist. Reading assessment of the number of words read in the two books, To Town and Red Tractor, was also completed.

Weeks Two-Five

After the assessment period, I introduced a program designed to encourage literacy. The program was presented in a series of 20-minute sessions three times a week for a period of six weeks.

Week Six

Data were individually collected on emergent literacy behaviors. A post test of the 14 pre-reading skills was individually administered to the children.

Discussion of Treatment

On the first day of the treatment, I let the children sit in chairs facing me as I read The Wheels on the Bus. The children were shown the cover of the book and invited to make comments about what they saw. I read the book twice to the children and invited them to join in on the second reading. Matthew was very quiet and only watched during the reading. Michael said a few words and Andrew joined in the reading with me. All children participated in the hand movements for "round and round," "sh, sh," and "wa, wa."

On the second day, I reread The Wheels on the Bus and the children joined in on the actions. We also read Mary Wore a Red Dress and talked about the colors in the book. On the third day of the treatment, Matthew joined in for the first time. During the fourth session, when The Wheels on the Bus was introduced, Matthew smiled and laughed and joined the group with actions to the book. Michael finished the ends of sentences for the first time. Andrew continued to join in the reading.

On the fourth day, Michael again finished the ends of sentences in the books. Matthew smiled and laughed a lot as we read. At the end of the session, they listened to the audio tape Wee Sing and Learn ABC through the letter "L."

On the fifth day, Matthew ran to meet me in the backyard making arm movements and saying "round and round." However, I had not brought that particular book with me, so we just sang it. Michael joined in on the endings of sentences, whereas Andrew read most of the words in new books presented. Michael was able to identify page numbers and sentences.

During the sixth session, Michael and Andrew were both attentive to book readings. Matthew joined in the reading of two books and then went on to play with cars. He joined us again for the book and audio tape, Wee Sing and Learn ABC.

On the seventh and eight sessions we read books, matched sentence strips and word cards, as well as read more predictable books.

On session nine, reading continued and Matthew joined in reading and identifying words. After reading the books I brought, each boy picked a book at the early child care facility to read. Matthew picked Franklin Forgets and turned the pages from back to front. Andrew picked a new big book, A Butterfly is Born, and read it aloud to the boys. Michael listened very attentively as Andrew read.

On the tenth session, Matthew again met me in the yard to see if I had brought books. We read several predictable books and the boys identified sentence beginnings and endings. Andrew again read a book to the other two boys.

On session eleven, we read predictable books again. Matthew joined in the reading with us. The boys identified the title page and sentence beginnings and endings.

On session thirteen, the three boys ran to greet me outdoors. Matthew joined in on the reading of three
books with the other boys. Michael, for the first time, chose to point to the words as I read them.

At session fourteen, Matthew wanted to read a book I had read to him alone this time. He read through the book four times and then his mother came to get him. He was very proud of his reading, although his mother did not display similar interest.

On the fifteenth session, Andrew went through the process of asking me where to find page numbers. His response, "Oh you chose 3! I'll pick page 2."

Session sixteen saw all the children matching word cards, sentence strips, and finding periods at the ends of sentences. The children played matching games with words (table, chair, rocking chair, etc.) as they labeled places in the early child care facility. Andrew stayed with the matching game the longest. All the children enjoyed hearing and joining in on books with onomatopoeic words.

On session seventeen, the children listened to the tape, Wee Sing and Learn ABC from "A" to "F" and enjoyed acting out the musical instruments. They put labels on items in the early child care facility. They matched word cards in books and went through actions in books. The session concluded with Andrew reading a book to the boys.

Session eighteen concluded the treatment sessions. The children asked for books to be read again. They identified sentences and ends of sentences. Andrew read a book to Matthew and Michael. When he had finished, Matthew, got a new book of his own to read aloud to the others, using words he had learned from books used in the treatment.

Results

Pretests

During the pretreatment observations of emergent literacy behaviors, all children were observed engaging in the emergent literacy skills of book handling, book browsing, and pretend reading. No child read silently.

The cumulative total of skills known by the children on the pretest of pre-reading skills was sixteen (Table 2, next page). All children were able to point to a sentence, match word cards, show where a sentence begins and ends, and point to and read page numbers.

Post Study

After the study was completed, each time I visited the early child care facility, the children would ask to have books read to them. Matthew ran to greet me each time I arrived asking for "Round and Round" (The Wheels on the Bus). He voluntarily picked new books

| Table 1 – Assessment of Emergent Literacy Behaviors of Three Year Olds |
|-------------------------|-------|-------|
| Number of Emergent Literacy Behaviors Identified Correctly |
|                        | Pre  | Post |
| 1. Book handling       | 3    | 3    |
| 2. Book browsing       | 3    | 3    |
| 3. Pretend reading     | 3    | 3    |
| 4. Reading aloud       | 2    | 3    |
| 5. Reading silently    | 0    | 0    |
| 6. Storytelling        | 1    | 1    |
| Total                  | 12   | 13   |
Table 2 – Assessment of Pre-reading Skills of Three Year Olds

<table>
<thead>
<tr>
<th>Number of Pre-reading Skills Identified Correctly</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Points to book</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2. Points to front cover</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>3. Point to back cover</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>4. Points to first page</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>5. Points to last page</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>6. Points to page number</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>7. Turns pages</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>8. Points to letter</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Points to word</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. Points to sentence</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>11. Matches word card to word in sentence</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>12. Frames word (shows where word begins and ends)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>36</td>
</tr>
</tbody>
</table>

from the collection at the early child care facility and went through the process of “reading” them aloud. Aggressive behaviors toward other children ended at the early child care facility. Regrettfully, his mother continued to display no interest in the child’s progress in literacy and expressed bewilderment that the child did not display aggressive behaviors at the early child care facility but displayed them at home.

Michael would ask if I had brought books each time I visited afterward. (Sometimes I hadn’t.) On occasions following the post testing, Andrew picked up a book, read it twice aloud to himself and then took on the role of the “teacher” going through the following dialogue I had modeled earlier:

Andrew: “Can you show me a page number?”
I point to a page number.
Andrew: “Good. Can you show me a period?”
I point to a page number.
Andrew: “Good. Can you show me where a sentence ends?”

Summary and Conclusions
Matthew, the child least interested in reading at the beginning of the study, progressed to picking out books on his own to try to read. He went from being engaged in other activities or sitting silently to joining in with the reading and finding other books to read. In the final days, he chose to read aloud to an audience.
Michael initially displayed symptoms of AD/HD. Cantwell and Baker (1991) report up to 80% of students with AD/HD exhibit academic performance problems. With this particular child in the study, reading appeared to have a very calming effect on him. On subsequent visits, following the post testing, he continued to ask me to read to him. He would listen to as many books (four to six) as I had time to read, which he selected from the collection at the early child care facility. Michael’s grandmother expressed enthusiasm and appreciation for the child’s progress, commending the director for providing an educational environment for her grandson. Following the study, he was observed reading a book to one of the infants and told me, “I’m reading to Tashia.”

Andrew moved from emergent literacy to alphabetic reading. He continued to read with fluency and expression. After the study was completed, he voluntarily read other books from the Wright Group Story Box and Sunshine collections: Round and Round, Down to Town, What a Mess!, The Birthday Cake, Our Granny, The Bicycle, and Stop! Since reading the book, To Town, which was read as part of the pretest for the study, he has been trying to spot a real “vintage car” and wants to know where the Town is located.

Although data was not collected on the infants at the early child care facility, they also benefited from observing the books and hearing them read. At the conclusion of the study, the early child care director assured me she would continue with literacy activities for all of the children.

Implications for Further Research
Some families of the high-risk children were interested in promoting early literacy with the children; others were not. In the interest of the children, we need to explore ways to get families involved in early literacy activities, a well as to continue reinforcing the progress the children have made. Caretakers in early child care settings can do
much to assist children in their care in gaining emergent literacy skills. Child care centers can contribute much to a child’s interest in learning to read. (Neuman, 2004). Brain research shows children are able to learn from a very early age. Surveying early childhood caretakers who engage in early literacy practices could be useful.

In this study, one child had precocious reading ability at an early age. The process which led to his as well as that of other children who are early readers could be revealing for parents, teachers, and caretakers.

We can touch the lives of children from low-economic, at-risk environments by engaging in practices that promote emergent literacy. Early child care centers have the potential to provide environments that support these emerging reading skills, which can assist children in being prepared for entrance in public schools. Children in this case study showed progress in gaining these skills.

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REFERENCES


CHILDREN’S BOOKS USED IN THE STUDY


**AUDIO TAPE/BOOK USED IN THE STUDY**